



برنامج التعاملات الإلكترونية الحكومية  
e-Government Program

# دليل قائمة البرمجيات المفتوحة المصدر البديلة لأدوات التجارية

(الإصدار ١،٠)

برنامج التعاملات الإلكترونية الحكومية (يسر)

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## 1. المقدمة

يمكن تصنيف البرمجيات إلى فئتين: البرمجيات المحكّرة أو التجارية، والبرمجيات مفتوحة المصدر. رغم أن لكل فئة مزاياها، إلا أن البرمجيات مفتوحة المصدر أصبحت بديلاً جذاباً للبرمجيات التجارية للعديد من الأسباب، بما في ذلك:

- توفر شفرة المصدر، مما يمكن المستخدمين من رؤية واختبار ما يفعله البرنامج.
- تمكن المستخدمين من تعديل البرامج.
- لا توجد رسوم ترخيص.
- التطوير المستمر والسريع، وسرعة إصلاح الأخطاء.

في هذا التقرير، حددنا بعض البرمجيات المفتوحة المصدر الأكثر شيوعاً وشعبية، والتي يمكن أن تحل محل البرمجيات التجارية.

### 1.1 أهداف هذا التقرير

يهدف هذا التقرير إلى مساعدة الجهات الحكومية على التعرف على البرمجيات مفتوحة المصدر المتوفرة، وتشجيعها على تبني المناسب منها لاحتياجات الجهة.

- تم إعداد هذا التقرير نظراً لمحدودية استخدام البرمجيات مفتوحة المصدر في الجهات الحكومية والقطاع العام.
- لا يقتضي هذا التقرير تفضيل أي بائع أو منتج.
- تهدف الخيارات المذكورة أيضاً إلى تشجيع موردي ومصممي أنظمة تقنية المعلومات على تقييم الخيارات المفتوحة المصدر عند تصميم الحلول والخدمات للجهات الحكومية.
- من المسلم به أن البرمجيات المفتوحة المصدر تتطور بوتيرة سريعة ويتم إنشاء مشاريع جديدة باستمرار. لذلك مع مرور الوقت يمكن لهذه الخيارات ان لا تمثل المشهد بدقة. ومع ذلك فإن معظم الخيارات المذكورة جيدة بما فيه الكفاية لتبقى خيارات صحيحة وموثوقة.

## ١,٢ المعايير

لتحديد ما إذا كان ينبغي أن يتم ذكر حزمة برمجيات مفتوحة المصدر في هذا التقرير، فقد تم استخدام المعايير التالية:

- ينبغي أن يكون مشروع البرنامج نشطاً. يتم تحديد ذلك بناءً على أنشطة مستودع شفرة مصدر البرنامج والأنشطة على موقع البرنامج على شبكة الإنترنت وأنشطة التطوير في مجتمع المشروع.
- ينبغي أن تكون شفرة مصدر البرنامج متاحة بشكل عام دون الحاجة إلى تقديم أي معلومات أو إنشاء أي حسابات للحصول عليها.
- في حالة وجود نسخة محكرة من البرنامج أيضاً، يجب أن تكون النسخة مفتوحة المصدر صالحة للاستعمال وكافية لأداء الوظيفة التي تم إنشاء البرنامج من أجلها.

## ١,٣ تنظيم التقرير

يتكون هذا التقرير من أربعة أقسام رئيسية بعد هذه المقدمة، يمثل كل منها فئة واسعة من التطبيقات والبرمجيات:

١. التطبيقات المؤسسية.
٢. تطبيقات البنية التحتية.
٣. تطبيقات تطوير البرمجيات.
٤. تطبيقات سطح المكتب.
٥. التطبيقات العلمية.

يندرج تحت كل فئة عدة أقسام يمثل كل منها وظيفة غالباً ما تتناولها حزمة برمجيات واحدة. على سبيل المثال، إدارة المشاريع ووظيفة تنتمي إلى فئة التطبيقات المؤسسية. في بداية القسم المخصص لكل وظيفة، تعرض قائمة بسيطة من الخيارات المحكرة المعروفة لغرضين:

١. لمزيد من التوضيح للمقصود من هذه الوظيفة من خلال الإشارة إلى التطبيقات الشائعة.

٢. لتحديد التطبيقات المحتكرة التي يمكن استبدالها من قبل الحزم المفتوحة المصدر المذكورة تحت هذه الوظيفة.

يلي قائمة خيارات البرمجيات المحتكرة قائمة من خيارات البرمجيات المفتوحة المصدر التي توفر هذه الوظيفة، تشمل البيانات التالية لكل مشروع:

- **الإصدار المبدئي:** السنة التي تم فيها إصدار أول نسخة مفتوحة المصدر من البرنامج. يعد ذلك مؤشراً على نضج المشروع.
- **المطور:** الجهة التي تطور شفرة مصدر البرنامج. يشكل ذلك مؤشراً على الدعم المتاح والاتجاهات المستقبلية للمشروع ومدى استدامته.
- **الموقع:** لمعرفة المزيد عن هذا المشروع. الموقع الإلكتروني للمشروع حيث يتم ذكر كافة موارده بما في ذلك الوثائق وشفرة المصدر وقنوات المجتمع وموارد المطور والتوجيهات ومنهجية الإدارة.
- **التوثيق:** رابط ووثائق المشروع الحالية. يعد توفر الوثائق وجودتها مؤشرات رئيسية لجودة المشروع ومدى ملائمته لأن يتم اعتماده من قبل أي جهة.
- **شفرة مصدر البرنامج:** رابط إلى مستودع شفرة مصدر البرنامج الرسمي للمشروع. مستودع البرنامج المصدر العام يؤكد توفر شفرة المصدر للبرنامج، والذي هو أحد شروط اعتماد أي رخصة كرخصة برمجيات مفتوحة المصدر من قبل OSI.
- **الرخصة:** رخصة البرمجيات مفتوحة المصدر المعتمدة من OSI والمستخدم لتوزيع شفرة مصدر البرنامج.
- **لديه ميزات محتكرة:** ما إذا كان البرنامج متاحاً كبرنامج تجاري أو محتكر يوفر وظائف إضافية غير متوفرة في النسخة المفتوحة المصدر. يتم سرد (بعض) الميزات المحتكرة ما أمكن ذلك، وسرد رابط لصفحة تتضمن جميع هذه الميزات. الغرض من هذه الخاصية هو تحديد مشاريع البرمجيات المفتوحة المصدر التي لا تشمل جميع الميزات المعلن عنها لأنها ليست مفتوحة المصدر، وتحديد هذه الميزات المفقودة.
- **الاستخدام الحالي في القطاع الحكومي:** ما إذا كان هذا البرنامج حالياً قيد الاستخدام في أي جهات حكومية في المملكة العربية السعودية ولأي غرض. وتستند هذه الميزة على نتائج دراسة استقصائية أجريت في نفس وقت كتابة هذا التقرير.

# ٢ التطبيقات المؤسسية

## ٢,١ إدارة المحتوى (CMS)

Commercial alternatives: Expression Engine, IBM WebSphere, WebLogic.

- OpenCms
  - Initial release: 2000
  - Developer: Alkacon Software (<http://www.alkacon.com/>)
  - Website: <http://www.opencms.org/en/>
  - Documentation: <http://documentation.opencms.org/>
  - Source code: <https://github.com/alkacon/opencms-core>
  - License: LGPLv2.1
  - Has proprietary features: No
- Hippo
  - Initial release: 2008
  - Developer: Hippo
  - Website: <https://www.onehippo.org/>
  - Documentation: <https://www.onehippo.org/library/about/introduction-hippo.html>
  - Source code: <https://code.onehippo.org/public/>
  - License: Apache 2.0
  - Has proprietary features: Yes
- Enonic XP
  - Initial release: 2001. Enonic XP initial release: 2015
  - Developer: Enonic AS, Norway
  - Website: <https://enonic.com/>
  - Documentation: <http://docs.enonic.com/en/stable/>
  - Source code: <https://github.com/enonic/xp>
  - License: AGPLv3
  - Has proprietary features: No
- Crafter CMS

- Initial release:
- Developer: Crafter Software
- Website: <http://craftersoftware.com/products/overview>,  
<http://craftercms.org/>
- Documentation: <http://docs.craftercms.org/>
- Source code: <https://github.com/craftercms>
  - <https://github.com/craftercms/core>
  - <https://github.com/craftercms/engine>
  - <https://github.com/craftercms/studio2>
  - <https://github.com/craftercms/search>
  - <https://github.com/craftercms/deployer>
  - <https://github.com/craftercms/profile>
  - <https://github.com/craftercms/social>
  - <http://craftercms.org/downloads>
- License: GNU GPLv3
- Has proprietary features: Yes. Commercial license and support exist.
- Infogluue
  - Initial release: 2003
  - Developer: Community
  - Website: <http://www.infogluue.org/>
  - Documentation: <http://www.infogluue.org/Projects/Documentation/>
  - Source code: <https://github.com/bogebblad/infogluue>
  - License: GNU GPL (details on specific version not found)
  - Has proprietary features: No
- Weceem
  - Initial release: 2009
  - Developer: jCatalog Software AG / OpusCapita  
(<http://www.opuscapita.com/jcatalog>)
  - Website: <http://www.weceem.org/>
  - Documentation: <http://jcatalog.github.io/weceem-plugin/>
  - Source code: <https://github.com/jCatalog/weceem-plugin/>

- License: Apache 2.0. Some modules, e.g. Bootstrap, jQuery and jQuery UI libraries, are provided under the MIT license.
- Has proprietary features: No
- Drupal
  - Initial release: 2001
  - Developer: Community
  - Website: <https://www.drupal.org/>
  - Documentation: <https://www.drupal.org/documentation>
  - Source code: <http://cgit.drupalcode.org/drupal>
  - License: GNU GPLv2 or later
  - Has proprietary features: No
  - Current use in government sector: King Khaled University, Prince Sattam University
- WordPress
  - Initial release: 2003
  - Developer: Community. Trademark owner: WordPress Foundation
  - Website: <https://wordpress.org/>
  - Documentation: <https://codex.wordpress.org/>
  - Source code: <https://core.trac.wordpress.org/browser/trunk>
  - License: GNU GPLv2 or later
  - Has proprietary features: No
- Joomla
  - Initial release: 2005
  - Developer: Community. Trademark owned by Open Source Matters (<http://opensourcematters.org/>)
  - Website: <https://www.joomla.org/>
  - Documentation: <https://docs.joomla.org/>
  - Source code: <https://github.com/joomla/joomla-cms>
  - License: GNU GPLv2
  - Has proprietary features: No
- TYPO3

- Initial release: 1998
- Developer: Community. Trademarks owned by the TYPO3 Association.
- Website: <https://typo3.org/>
- Documentation: <https://typo3.org/documentation/>
- Source code: <https://git.typo3.org/Packages/TYPO3.CMS.git>
- License: GNU GPLv2 or later
- Has proprietary features: No
- Umbraco
  - Initial release: 2000
  - Developer: Umbraco Corporation
  - Website: <https://umbraco.com/>, <https://our.umbraco.org/>
  - Documentation: <https://our.umbraco.org/documentation/>
  - Source code: <https://github.com/umbraco/Umbraco-CMS/>
  - License: MIT
  - Has proprietary features: Yes (<https://umbraco.com/>). Enterprise and cloud versions exist. <https://umbraco.com/products-and-support#add-ons>
- CMS Made Simple
  - Initial release: 2009
  - Developer: Ted Kulp
  - Website: <http://www.cmsmadesimple.org/>
  - Documentation: <https://docs.cmsmadesimple.org/>
  - Source code:
    - <http://viewsvn.cmsmadesimple.org/listing.php?repname=cmsmadesimple>
    - <http://www.cmsmadesimple.org/downloads/>
    - <https://github.com/cmsmadesimple>
  - License: GNU GPLv2 or later
  - Has proprietary features: No
- B2evolution
  - Initial release: 2002
  - Developer: François Planque
  - Website: <http://b2evolution.net/>

- Documentation: <http://b2evolution.net/man/>
- Source code: <https://github.com/b2evolution/b2evolution>
- License: GNU GPLv2
- Has proprietary features: No
- Ametys
  - Initial release: 2003
  - Developer: Ametys
  - Website: [www.ametys.org/](http://www.ametys.org/)
  - Documentation: <http://www.ametys.org/community/en/resources-hub.html>
  - Source code: <http://viewvc.ametys.org/viewvc/trunk/templates/cmsweb/>
  - License: Apache 2.0
  - Has proprietary features: No
- Wagtail
  - Initial release: 2014
  - Developer: Torchbox (<https://torchbox.com/>)
  - Website: <https://wagtail.io/>
  - Documentation: <http://docs.wagtail.io/>
  - Source code: <https://github.com/wagtail/wagtail>
  - License: BSD-3-Clause
  - Language: Python
  - Has proprietary features: No
  - Current use in government sector: King Fahd University of Petroleum & Minerals

## ٢,٢ إدارة المستندات (DMS)

Commercial alternatives: Microsoft SharePoint, KnowledgeTree, Netdocuments, and Worldox.

- Alfresco
  - Initial release: 2005
  - Developer: Alfresco Software, Inc.
  - Website: <https://www.alfresco.com/solutions/document-management>
  - Documentation: <http://docs.alfresco.com/>

- Source code:
  - <https://svn.alfresco.com/repos/alfresco-open-mirror/alfresco/>
  - Mirror: <https://github.com/Alfresco/community-edition>
- License: LGPLv3
- Has proprietary features: Yes  
(<https://www.alfresco.com/products/enterprise-content-management>)
- OpenKM
  - Initial release: 2007
  - Developer: Open Document Management System S.L., Spain
  - Website: <https://www.openkm.com/>
  - Documentation: <https://docs.openkm.com/kcenter/>
  - Source code: <https://sourceforge.net/p/openkm/code/>
  - License: GNU GPLv2
  - Has proprietary features: Yes (<https://www.openkm.com/en/comparison-of-versions.html>)
- Nuxeo
  - Initial release: 2000
  - Developer: Nuxeo SA
  - Website: <https://www.nuxeo.com/>
  - Documentation: <https://doc.nuxeo.com/>
  - Source code: <https://github.com/nuxeo/nuxeo>
  - License: Apache 2.0 or compatible (LGPLv2.1, Eclipse, CDDL)
  - Has proprietary features: No
- Mayan EDMS
  - Initial release: 2011
  - Developer: Mayan EDMS LLC + Community
  - Website: <http://www.mayan-edms.com/>
  - Documentation: <https://mayan.readthedocs.org/>
  - Source code: <https://gitlab.com/mayan-edms/mayan-edms>
  - License: Apache 2.0
  - Has proprietary features: No

- Kimios
  - Initial release: 2013, formerly Quotero DMS
  - Developer: Devlib', France
  - Website: <http://www.kimios.com/>
  - Documentation: No
  - Source code: <https://github.com/kimios/kimios>
  - License: AGPLv2
  - Has proprietary features: Yes (<http://www.kimios.com/licence>)
- Casebox
  - Initial release: 2011
  - Developer: HURIDOCS and KETSE.com
  - Website: <https://www.casebox.org/>
  - Documentation: <https://www.casebox.org/userguide/>
  - Source code: <https://github.com/KETSE/casebox>
  - License: AGPLv3
  - Has proprietary features: No
- SeedDMS:
  - Initial release: Not found
  - Developer: Community
  - Website: <http://www.seeddms.org/>
  - Documentation: <http://www.seeddms.org/index.php?id=5> (API documentation and links to third-party installation instructions for special hardware)
  - Source code: <https://sourceforge.net/p/seeddms/code/ci/master/tree/>
  - License: GNU GPLv2
  - Has proprietary features: No

## ٢,٣ تخطيط موارد المؤسسات

Commercial alternatives: Oracle E-Business Suite, Microsoft Dynamics, and SAP ERP.

- Odoo, formerly OpenERP
  - Initial release: 2005

- Developer: Odoo SA, Belgium
- Website: <https://www.odoo.com/>
- Documentation: <https://www.odoo.com/page/docs>
- Source code: <https://github.com/odoo/odoo>
- License: Odoo 8: AGPLv3. Odoo 9+: LGPLv3
- Has proprietary features: Yes (<https://www.odoo.com/page/editions>)
- Current use in government sector: Ministry of Labor / Tamkeen
- ERPNext
  - Initial release: 2008
  - Developer: Frappé, India
  - Website: <https://erpnext.com/>
  - Documentation: <http://frappe.github.io/erpnext/>
  - Source code: <https://github.com/frappe/erpnext>
  - License: GNU GPLv3
  - Has proprietary features: No
- Apache OFBiz
  - Initial release: 2006
  - Developer: Community. Trademark owned by Apache.
  - Website: <https://ofbiz.apache.org/>
  - Documentation: <https://ofbiz.apache.org/documentation.html>
  - Source code:
    - <http://svn.apache.org/repos/asf/ofbiz/>
    - Mirror: <https://github.com/apache/ofbiz>
  - License: Apache 2.0
  - Has proprietary features: No
- Dolibarr
  - Initial release: 2003
  - Developer: Community, with guidance from the Dolibarr foundation
  - Website: <https://www.dolibarr.org/>
  - Documentation: <https://www.dolibarr.org/documentation>
  - Source code: <https://github.com/Dolibarr/dolibarr>

- License: GNU GPLv3
- Has proprietary features: No
  
- ERP5
  - Initial release: 2002
  - Developer: Nexedi, France, and the ERP5 Community
  - Website: <https://www.erp5.com/>
  - Documentation:
    - User documentation: <https://www.erp5.com/deploy>
    - Developer documentation: <https://www.erp5.com/develop>
  - Source code: <https://lab.nexedi.com/nexedi/erp5/>
  - License: GNU GPLv2 or later
  - Has proprietary features: No
  
- inoERP
  - Initial release: 2014
  - Developer: Community
  - Website: <http://www.inoideas.org/>
  - Documentation:  
[http://inoideas.org/content.php?content\\_type=documentation&category\\_id=30](http://inoideas.org/content.php?content_type=documentation&category_id=30)
  - Source code: <https://github.com/inoerp/inoERP>
  - License: Mozilla Public License 2.0
  - Has proprietary features: No
  
- EasyERP
  - Initial release: 2013
  - Developer: EasyERP, Ukraine
  - Website: <https://easyerp.com/>
  - Documentation: <https://easyerp.com/documentation/>
  - Source code:
    - <https://github.com/YourTradingSystems/EasyERP>
    - <https://sourceforge.net/p/easyerp/source/>

- License: LGPLv3
- Has proprietary features: No
- Axelor ERP
  - Initial release: 2013
  - Developer: Axelor, France
  - Website: <http://www.axelor.com/erp/>
  - Documentation: <http://docs.axelor.com/adk/>
  - Source code: <https://github.com/axelor/axelor-business-suite>
  - License: AGPLv3
  - Has proprietary features: No
- MixERP
  - Initial release: 2013
  - Developer: MixERP Inc., Nepal
  - Website: <https://mixerp.org/>
  - Documentation:
    - <https://mixerp.org/knowledgebase>
    - <http://docs.mixerp.org/>
  - Source code: <https://github.com/mixerp/mixerp>
  - License: GNU GPLv3
  - Has proprietary features: Yes (<https://mixerp.org/>):
    - Payroll Management
    - Manufacturing

## ٢,٤ إدارة المشاريع

Commercial alternatives: Microsoft Project and HP Project & Portfolio Software.

- OpenProject
  - Initial release: 2012
  - Developer: OpenProject Foundation
  - Website: <http://openproject.org/>
  - Documentation: <https://www.openproject.org/open-source/>
  - Source code: <https://www.openproject.org/open-source/download/>

- License: GNU GPLv3 or later
- Has proprietary features: Yes. Support for Enterprise Edition. Cloud version exists as well.
- Project.net
  - Initial release: 2012
  - Developer: Integrated Computer Solutions
  - Website: <http://www.project.net/>
  - Documentation: <http://dev.project.net/trac/pnet-community/wiki>
  - Source code: <http://dev.project.net/trac/pnet-community/wiki/SourceTree>
  - License: GNU GPLv3
  - Has proprietary features: Yes. Support for Enterprise Edition. Additional features in Enterprise Edition that didn't exist in Community Edition.  
<http://www.project.net/comparison>
- Web2project:
  - Initial release: 2007
  - Developer: Pedro Azevedo, Bruce Bodger, D. Keith Casey, Jr., Trevor Morse
  - Website: <http://web2project.net/>
  - Documentation: <http://docs.web2project.net/>
  - Source code: <https://github.com/web2project/web2project.github.io>
  - License: BSD-2-Clause
  - Has proprietary features: No
- LibrePlan:
  - Initial release: 2009
  - Developer: Igalia
  - Website: [www.libreplan.org/](http://www.libreplan.org/)
  - Documentation: <http://wiki.libreplan.org/twiki/bin/view/LibrePlan>
  - Source code: <https://github.com/LibrePlan/libreplan>
  - License: AGPLv3
  - Has proprietary features: Yes. Support and Cloud Services exist.  
<http://www.libreplan.org/nc/services/support-packages/>
- MyCollab

- Initial release: 2011
- Developer: Mycollab
- Website: <https://community.mycollab.com/>
- Documentation: <https://community.mycollab.com/>
- Source code: <https://github.com/MyCollab/mycollab>
- License: AGPLv3
- Has proprietary features: Yes. <https://www.mycollab.com/>

## ٢,٥ إدارة المشاريع البرمجية / دورة حياة تطوير البرامج / أدوات التعاون لتطوير البرامج

Commercial alternatives: MS Project Server, Clarizen, Jira, and Basecamp.

- Phabricator:
  - Initial release: 2010
  - Developer: Phacility, Inc
  - Website: <https://www.phacility.com/phabricator/>
  - Documentation: <https://secure.phabricator.com/book/phabricator/>
  - Source code: <https://github.com/phacility/phabricator>
  - License: Apache 2.0
  - Has proprietary features: No
- Redmine
  - Initial release: 2006
  - Developer: Jean-Philippe Lang
  - Website: [www.redmine.org](http://www.redmine.org)
  - Documentation: <http://www.redmine.org/projects/redmine/wiki/Guide>
  - Source code: <https://svn.redmine.org/redmine/> ;  
<http://www.redmine.org/projects/redmine/wiki/Download>
  - License: GNU GPLv2
  - Has proprietary features: No
  - Current use in government sector: Prince Sattam University

- Trac
  - Initial release: 2004
  - Developer: Edgewall Software
  - Website: <https://trac.edgewall.org/>
  - Documentation: <https://trac.edgewall.org/wiki/TracGuide>
  - Source code: <https://trac.edgewall.org/wiki/TracDownload>
  - License: BSD-3-Clause and NLPL
  - Has proprietary features: No
- Orangescrum
  - Initial release: 2011
  - Developer: Andolasoft
  - Website: <http://www.orangescrum.org/>
  - Documentation: <http://www.orangescrum.org/installation-guide>
  - Source code: <http://www.orangescrum.org/free-download>
  - License: GNU GPLv 3
  - Has proprietary features: Yes. Some advanced features such as resource utilization, invoice generation, Gantt Chart, and support are not available.
- Taiga
  - Initial release: 2014
  - Developer: Taiga Agile, LLC
  - Website: <https://taiga.io/>
  - Documentation: <https://taigaio.github.io/taiga-doc/dist/>
  - Source code: <https://github.com/taigaio>
  - License: AGPLv3 or later
  - Has proprietary features: Yes. <https://taiga.io/#pricing>
- Agilefant:
  - Initial release: Not found
  - Developer: Agilefant
  - Website: <https://www.agilefant.com/open-source/>
  - Documentation: <https://github.com/Agilefant/agilefant/wiki>
  - Source code: <https://github.com/Agilefant/agilefant>

- License: MIT
- Has proprietary features: Yes. <https://www.agilefant.com/pricing/>

## ٢,٦ التحليلات / ذكاء الأعمال (التقارير)

Commercial alternatives: IBM Cognos, Qlikview, and Tableau.

- ELK stack (Elastic Stack)
  - Initial release: Not found
  - Developer: Elastic
  - Website: <https://www.elastic.co/>
  - Documentation: <https://www.elastic.co/guide/index.html>
  - Source code: <http://github.com/elastic>
  - License: Apache 2.0
  - Has proprietary features: No
- SpagoBI
  - Initial release: Pre-2012. Exact year not found.
  - Developer: OW2 Consortium
  - Website: <http://forge.ow2.org/projects/spagobi>
  - Documentation: <http://forge.ow2.org/projects/spagobi>
  - Source code: [http://forge.ow2.org/project/showfiles.php?group\\_id=204](http://forge.ow2.org/project/showfiles.php?group_id=204)
  - License: Mozilla Public License 2.0
  - Has proprietary features: No

## ٢,٧ منظومات التعاون والبرامج المكتبية

Commercial alternatives: MS Exchange and MS Office Online Server.

Below table shows the comparison of features of popular collaboration suites.

Product	Email	Calendar	File sharing	Productivity
MS Exchange	✓	✓		
MS Office Online Server			✓	✓
Zimbra	✓	✓	✓	
Scalix	✓	✓		
Zarafa	✓	✓	✓	
Kolab	✓	✓	✓	
SOGGo	✓	✓		
Open365			✓	✓
FengOffice		✓	✓	✓
ONLYOFFICE	✓	✓	✓	✓
ownCloud		✓	✓	✓?

- Zimbra
  - Initial release: 2005
  - Developer: Zimbra employees. Community contributions acceptable
  - Website: <https://www.zimbra.com/>
  - Documentation: <https://www.zimbra.com/documentation/>
  - Source code: <https://git.zimbra.com/repos/zimbra-foss/>
  - License: Server: GNU GPLv2. Web client and Zimlets: CPALv1 (Common Public Attribution License). Versions prior to version 8.5: Zimbra Public License 1.4.

- Has proprietary features: Yes: <https://www.zimbra.com/email-server-software/product-edition-comparison/>
  - Attachment search
  - Microsoft Exchange interoperability
  - LDAP and Active Directory support
  - White label for web client
  - S/MIME signing and encryption
  - Two-factor authentication
  - More...
- Current use in government sector: Technical and Vocational Training Corporation
  
- ONLYOFFICE
  - Initial release: 2014
  - Developer: Ascensio System SIA, Latvia
  - Website: <http://onlyoffice.org/>
  - Documentation: <http://helpcenter.onlyoffice.com/>
  - Source code:
  - <https://github.com/ONLYOFFICE/DocumentServer>
  - <https://github.com/ONLYOFFICE/CommunityServer>
  - License: AGPLv3
  - Has proprietary features: Yes, <http://www.onlyoffice.com/enterprise-edition.aspx>
    - Control Panel
    - White Label option
    - Multitenancy
  - One year support and updates
  
- ownCloud
  - Initial release: 2010
  - Developer: ownCloud, Community
  - Website: <https://owncloud.org/> , <https://owncloud.com/>

- Documentation: <https://doc.owncloud.org/>
- Source code: <https://owncloud.org/install/>
- License: AGPLv3
- Has proprietary features: Yes. Enterprise Edition introduces a number of new features and innovations including integrated Two-Factor Authentication, Workflow Engine, and Windows Server Notifications. <https://owncloud.com/community-or-enterprise/>
- Current use in government sector: Ministry of Labor / Tamkeen
- **BigBlueButton**
  - Initial release: 2008
  - Developer: BigBlueButton Inc.
  - Website: <http://bigbluebutton.org/>
  - Documentation: <http://docs.bigbluebutton.org/>
  - Source code: <https://github.com/bigbluebutton/bigbluebutton>
  - License: LGPLv3
  - Has proprietary features: No
  - Current use in government sector: Ministry of Labor / Tamkeen
- **Scalix**
  - Initial release: 2002
  - Developer: Scalix Inc.
  - Website: <http://www.scalix.com/>
  - Documentation: <http://www.scalix.com/en/downloads-documentation>
  - Source code: <https://www.scalix.com/en/downloads-source-packages> (request form, actual link provided via email upon request)
  - License: Scalix Public License (SPL) v1.1: Mozilla Public License Version 1.1 with the Additional Terms. Non-OSI-approved <http://www.scalix.com/en/opensource-licensing>
  - Has proprietary features: Yes
- **Zarafa**
  - Initial release: 2007
  - Developer: Zarafa (<https://www.zarafa.com/>)

- Website: <https://www.zarafa.com/>
- Documentation: <https://documentation.zarafa.com/>
- Source code: <https://download.zarafa.com/community/>
- License: AGPLv3
- Has proprietary features: Yes
- Kolab
  - Initial release: 2003
  - Developer: Kolab Systems AG (<https://kolabsystems.com/>)
  - Website: <https://kolab.org/>
  - Documentation: <https://docs.kolab.org/>
  - Source code: <https://git.kolab.org/diffusion/>
  - License: Various open source licenses, including GNU GPLv3, LGPLv3, Apache 2.0
  - Has proprietary features: No
- SOGo
  - Initial release: 2007
  - Developer: Inverse inc. (<https://inverse.ca/>)
  - Website: <https://sogo.nu/>
  - Documentation: [https://sogo.nu/support/index\\_new.html#/documentation](https://sogo.nu/support/index_new.html#/documentation)
  - Source code: <https://github.com/inverse-inc/sogo>
  - License: GNU GPLv2 and LGPLv2
  - Has proprietary features: Yes. To download binaries, a support contract from the developer is needed.
- Open365
  - Initial release: Not found
  - Developer: Community
  - Website: <https://open365.io/>
  - Documentation:  
<https://github.com/Open365/Open365/blob/master/README.md>
  - Source code: <https://github.com/Open365/Open365/>

- License: AGPLv3
- Has proprietary features: No
- **FengOffice**
  - Initial release: 2008
  - Developer: Feng Office
  - Website: <http://www.fengoffice.com/>
  - Documentation:
  - Source code: <http://www.fengoffice.com/web/community/downloads.php>
  - License: AGPLv3
  - Has proprietary features: Community edition is free to use. There exist professional edition and enterprise edition of the software that come with client management, project management, expense module, and others. The developer also provides technical support as per the support plans.
- **EtherPad / EtherPad-Lite**
  - Initial release: 2008
  - Developer: Etherpad Foundation
  - Website: <http://etherpad.org/>
  - Documentation: <http://etherpad.org/#links>
  - Source code: <http://etherpad.org/#download>
  - License: Apache 2.0
  - Has proprietary features: No
- **EtherCalc**
  - Initial release: 2009
  - Developer: Community
  - Website: <https://ethercalc.net/>
  - Documentation: <https://ethercalc.net/>
  - Source code: <https://ethercalc.net/> , <https://github.com/audreyt/ethercalc>
  - License: Common Public Attribution License
  - Has proprietary features: No

## ٢,٨ أنظمة معلومات الطالب

Commercial alternatives: Banner and PeopleSoft.

- **Kuali Student:**
  - Initial release:
  - Developer: Kuali Foundation
  - Website: <https://www.kuali.org/ks>
  - Documentation: <https://www.kuali.org/documentation>
  - Source code: <https://www.kuali.org/download>, <https://kuali-student.github.io/>, <https://github.com/kuali-student>
  - License: AGPLv3
  - Has proprietary features: No
- **OpenEMIS:**
  - Initial release: 2000
  - Developer: UNESCO
  - Website: <https://www.openemis.org/>  
Documentation: <https://www.openemis.org/>
  - Source code: <https://www.openemis.org/>
  - License: GNU GPLv3
  - Has proprietary features: No

## ٢,٩ أنظمة إدارة التعلم

Commercial alternatives: Blackboard and Docebo.

- **Moodle :**
  - Initial release: 2002
  - Developer: Martin Dougiamas, Moodle HQ, and Moodle Community
  - Website: <http://www.moodle.org>
  - Documentation: [https://docs.moodle.org/31/en/Main\\_page](https://docs.moodle.org/31/en/Main_page)
  - Source code: <https://download.moodle.org/releases/latest/>
  - License: GNU GPLv3 or later
  - Has proprietary features: No

- Sakai :
  - Initial release: 2005
  - Developer: Sakai community
  - Website: <https://www.sakaiproject.org/>
  - Documentation: <https://www.sakaiproject.org/documentation>
  - Source code: <https://www.sakaiproject.org/try-sakai>
  - License: ECL-2.0
  - Has proprietary features: Yes. <https://www.sakaiproject.org/try-sakai>
  
- Canvas LMS
  - Initial release: Not found
  - Developer: Canvas
  - Website: <https://www.canvaslms.com>
  - Documentation: <https://guides.instructure.com>
  - Source code: <https://github.com/instructure/canvas-lms>
  - License: AGPLv3
  - Has proprietary features: Available. Few plugins and extensions that are provided to customers that are not open source. These include:
    - Multi-tenancy extensions
    - Mobile integration
    - Proprietary SIS integrations
    - Migration tools for commercial LMSs
    - Other minor customizations that only apply to company's hosted environment
  - Chat tool
  - Attendance tool (Roll Call)
  - SCORM import tool
  - Catalog

## ٣ البنية التحتية

### ٣,١ أنظمة التشغيل للخوادم

Commercial alternatives: Microsoft Windows Server 2016, HP-UX, AIX, Solaris.

- Debian:
  - Initial release: 1993
  - Developer: Debian Project
  - Website: <https://www.debian.org/>
  - Documentation: <https://www.debian.org/doc/ddp>
  - Source code: <http://sources.debian.net/>
  - Has proprietary features: No
- CentOS:
  - Initial release: 2004
  - Developer: The CentOS Project (Affiliated with RedHat)
  - Website: <https://www.centos.org/>
  - Documentation: <https://www.centos.org/docs/>
  - Source code: <https://git.centos.org/project/rpms>
  - Has proprietary features: No
  - Current use in government sector: Prince Sattam University
- Ubuntu:
  - Initial release: 2004
  - Developer: Canonical Ltd., Ubuntu community
  - Website: <http://www.ubuntu.com/>
  - Documentation: <https://help.ubuntu.com/>
  - Source code: <http://archive.ubuntu.com/ubuntu/> (not browseable)
  - Has proprietary features: No
  - Current use in government sector: Prince Sattam University
- OpenSUSE:
  - Initial release: 2005
  - Developer: openSUSE Project

- Website: <https://www.opensuse.org/>
- Documentation: <https://doc.opensuse.org/>
- Source code: <http://download.opensuse.org/source/distribution/>
- Has proprietary features: No
- Fedora Server:
  - Initial release: 2003
  - Developer: Fedora Project (sponsored by RedHat)
  - Website: <https://getfedora.org/server/>
  - Documentation: <https://docs.fedoraproject.org/>
  - Source code: <http://pkgs.fedoraproject.org/cgit/>
  - Has proprietary features: No

## ٣,٢ برامج Hypervisor

Commercial alternatives: VMware ESXi and HyperV.

- Xen:
  - Initial release: 2003
  - Developer: Community. Trademark owner: The Linux Foundation (<https://www.linuxfoundation.org/>)
  - Website: <https://www.xenproject.org/>
  - Documentation: <https://www.xenproject.org/help/documentation.html>
  - Source code: <http://xenbits.xen.org/gitweb/?p=xen.git>
  - License: GNU GPLv2
  - Has proprietary features: No
- KVM:
  - Initial release: 2006
  - Developer: Linux Kernel Developers
  - Website: [www.linux-kvm.org/](http://www.linux-kvm.org/)
  - Documentation: <http://www.linux-kvm.org/page/Documents>
  - Source code: <http://git.kernel.org/cgit/virt/kvm/kvm.git>

- License: GNU GPLv2
- Has proprietary features: No
- VirtualBox:
  - Initial release: 2007
  - Developer: Community, backed by Oracle
  - Website: <https://www.virtualbox.org/>
  - Documentation: <https://www.virtualbox.org/wiki/Documentation>
  - Source code: <https://www.virtualbox.org/browser/vbox/trunk>
  - License: GNU GPLv2
  - Has proprietary features: Yes  
([https://www.virtualbox.org/wiki/Licensing\\_FAQ](https://www.virtualbox.org/wiki/Licensing_FAQ))
- OpenVZ:
  - Initial release: 2005
  - Developer: Community, supported by Odin, Inc.
  - Website: <https://openvz.org/>
  - Documentation: <https://openvz.org/>
  - Source code: <https://src.openvz.org/projects/OVZ>
  - License: GNU GPLv2
  - Has proprietary features: No
- Linux Containers (LXC):
  - Initial release: 2008
  - Developer: Kernel: Virtuozzo, IBM, Google, Eric Biederman and others.  
Userspace: Daniel Lezcano, Serge Halryn, Stéphane Graber and others.
  - Website: <https://linuxcontainers.org/>
  - Documentation: <https://linuxcontainers.org/lxc/documentation/>
  - Source code: <https://github.com/lxc/lxc>
  - License: LGPLv2.1 or later
  - Has proprietary features: No
- Docker
  - Initial release: 2013
  - Developer: Docker, Inc.

- Website: <https://www.docker.com/>
- Documentation: <https://docs.docker.com/>
- Source code: <https://github.com/docker/docker>
- License: Apache 2.0
- Has proprietary features: No

### ٣,٣ البنية التحتية كخدمة (IaaS)

Commercial alternatives: VMware vCloud, Citrix Cloud and HPE Helion.

- OpenStack:
  - Initial release: 2010
  - Developer: Community, managed by OpenStack Technical Committee
  - Website: <https://www.openstack.org/>
  - Documentation: <http://docs.openstack.org/>.
  - Source code:
    - <http://git.openstack.org/cgit/openstack/openstack/>
    - <https://github.com/openstack/openstack> (mirror)
  - License: Apache 2.0
  - Has proprietary features: No
- OpenNebula:
  - Initial release: 2008
  - Developer: Community
  - Website: <http://opennebula.org/>
  - Documentation: <http://opennebula.org/documentation/>
  - Source code: <https://github.com/OpenNebula/one>
  - License: Apache 2.0
  - Has proprietary features: No
- CloudStack:
  - Initial release: 2010
  - Developer: Apache Software Foundation
  - Website: <https://cloudstack.apache.org/>
  - Documentation: <http://docs.cloudstack.apache.org/>

- Source code: <https://github.com/apache/cloudstack>
- License: Apache 2.0
- Has proprietary features: No

### ٣,٤ منصات البرامج كخدمة (PaaS)

Commercial alternatives: Amazon AWS, IBM Bluemix, and Heroku.

- CloudFoundry:
  - Initial release: 2011
  - Developer: VMware Pivotal Software
  - Website: <https://www.cloudfoundry.org/>
  - Documentation: <https://docs.cloudfoundry.org/>
  - Source code: <https://github.com/cloudfoundry>
  - License: Apache 2.0
  - Has proprietary features: No
- OpenShift Origin:
  - Initial release: 2011
  - Developer: RedHat
  - Website: <https://www.openshift.org/>
  - Documentation: <https://docs.openshift.org/>
  - Source code: <https://github.com/openshift/origin/>
  - License: Apache 2.0
  - Has proprietary features: No
- Apache Stratos:
  - Initial release: 2013
  - Developer: Apache Software Foundation (ASF)
  - Website: <http://stratos.apache.org/>
  - Documentation: <https://cwiki.apache.org/confluence/display/STRATOS/Home>
  - Source code: <https://git-wip-us.apache.org/repos/asf?p=stratos.git>
  - License: Apache 2.0
  - Has proprietary features: No

- Cloudify:
  - Initial release: 2012
  - Developer: Gigaspaces
  - Website: <http://getcloudify.org/>
  - Documentation: <http://docs.getcloudify.org>
  - Source code: <https://github.com/CloudifySource/cloudify>
  - License: Apache 2.0
  - Has proprietary features: No

## ٣,٥ سحابة التخزين

Commercial alternatives: Dropbox and Box.

- Ceph:
  - Initial release: 2007
  - Developer: Canonical, CERN, Cisco, Fujitsu, Intel, Red Hat, SanDisk, and SUSE
  - Website: <http://ceph.com/>
  - Documentation: <http://docs.ceph.com/docs/>
  - Source code: <http://git.ceph.com/?p=ceph.git;a=summary>
  - License: LGPLv2.1 or later
  - Has proprietary features: No
- GlusterFS:
  - Initial release: 2011
  - Developer: Community
  - Website: <http://www.gluster.org/>
  - Documentation: <https://gluster.readthedocs.io/>
  - Source code: <https://github.com/gluster/glusterfs>
  - License: GNU GPLv3
  - Has proprietary features: No
- OpenStack Swift:
  - Initial release: 2009
  - Developer: Community, managed by OpenStack Technical Committee

- Website: <http://swift.openstack.org>
- Documentation: <http://docs.openstack.org/developer/swift/>
- Source code:
  - <http://git.openstack.org/cgit/openstack/swift>
  - <https://github.com/openstack/swift> (mirror)
- License: Apache 2.0
- Has proprietary features: No
  
- Minio:
  - Initial release: 2015
  - Developer: Minio Inc.
  - Website: <https://www.minio.io/>
  - Documentation: <https://docs.minio.io/>
  - Source code: <https://github.com/minio/minio>
  - License: Apache 2.0
  - Has proprietary features: No
  
- Sheepdog:
  - Initial release: 2010
  - Developer: Community
  - Website: <http://sheepdog.github.io/sheepdog/>
  - Documentation: <http://www.sheepdog-project.org/doc/>
  - Source code:
    - Server: <https://github.com/sheepdog/sheepdog>
    - Client: <http://git.qemu.org/qemu.git>
  - License: GNU GPLv2
  - Has proprietary features: No

## ٣,٦ المراقبة

Commercial alternatives: HP (NNMi, OM), IBM QRadar and Splunk.

- Zabbix:
  - Initial release: 2001

- Developer: Zabbix Company
- Website: <http://www.zabbix.com/>
- Documentation: <https://www.zabbix.com/documentation/3.2/start>
- Source code: <https://github.com/zabbix/zabbix>
- License: GNU GPLv2
- Has proprietary features: No
- Current use in government sector: King Fahd University of Petroleum & Minerals
- OpenNMS:
  - Initial release: 1999
  - Developer: The Order of the Green Polo, The OpenNMS Group
  - Website: <https://www.opennms.org/>
  - Documentation: <https://docs.opennms.org/>
  - Source code: <https://github.com/OpenNMS/opennms>
  - License: AGPLv3 or Later
  - Has proprietary features: No
- Nagios:
  - Initial release: 1999
  - Developer: Ethan Galstad and others
  - Website: <https://www.nagios.org/>
  - Documentation: <https://www.nagios.org/documentation/>
  - Source code: <https://github.com/NagiosEnterprises/nagioscore>
  - License: GNU GPLv2
  - Has proprietary features: No

### **Alerting:**

- Icinga: Fork of Nagios
  - Initial release: 2009
  - Developer: Community
  - Website: <https://www.icinga.org/>, <https://www.icinga.com/>

- Documentation: <https://www.icinga.com/docs/> ,  
<https://wiki.icinga.com/dashboard.action>
- Source code: <https://www.icinga.com/download/>
- License: Icinga software (GNU GPLv2) and Icinga Web I (GNU GPLv3).
- Has proprietary features: No

### **Alert Dashboard:**

- Openduty:
  - Initial release: Not found
  - Developer: Community
  - Website: <https://github.com/ustream/openduty>
  - Documentation: Not found
  - Source code: <https://github.com/ustream/openduty>
  - License: MIT
  - Has proprietary features: No
- Alerta:
  - Initial release: Not found
  - Developer: Community
  - Website: <http://alerta.io/>
  - Documentation: <http://docs.alerta.io/en/latest/>
  - Source code: <https://github.com/guardian/alerta>
  - License: Apache 2.0
  - Has proprietary features: No

### **Processing:**

- Sensu:
  - Initial release: 2014
  - Developer: Community
  - Website: <https://sensuapp.org/>
  - Documentation: <https://sensuapp.org/docs/>
  - Source code: <https://sensuapp.org/downloads>
  - License: MIT
  - Has proprietary features: No

- **Bosun:**
  - Initial release: Not found
  - Developer: Stack Exchange
  - Website: <https://bosun.org/>
  - Documentation: <https://bosun.org/documentation.html>
  - Source code: <https://github.com/bosun-monitor/bosun>
  - License: MIT
  - Has proprietary features: No
- **Riemann:**
  - Initial release: Not found
  - Developer: Community
  - Website: <http://riemann.io/>
  - Documentation: <http://riemann.io/howto.html>
  - Source code: <https://github.com/riemann/riemann>
  - License: Eclipse Public License - v1.0
  - Has proprietary features: No

### **Trends:**

- **Cacti:**
  - Initial release: 2001
  - Developer: The Cacti Group, Inc
  - Website: <http://www.cacti.net/>
  - Documentation: [www.cacti.net/documentation.php](http://www.cacti.net/documentation.php)
  - Source code: <https://github.com/Cacti/cacti>
  - License: GNU GPLv2
  - Has proprietary features: No
- **Ganglia:**
  - Initial release: 2000
  - Developer: Community
  - Website: <http://ganglia.info/>
  - Documentation: <https://github.com/ganglia/monitor-core/wiki/Ganglia-Documents>

- Source code: <https://github.com/ganglia>
- License: BSD-3-Clause
- Has proprietary features: No
- Munin:
  - Initial release: 2003
  - Developer: Jimmy Olsen and Community
  - Website: <http://munin-monitoring.org/>
  - Documentation: <http://munin-monitoring.org/wiki/Documentation>
  - Source code: <https://github.com/munin-monitoring/munin>
  - License: GNU GPLv2
  - Has proprietary features: No
- Observium:
  - Initial release: 2007
  - Developer: Observium Limited
  - Website: <http://www.observium.org/>
  - Documentation: [www.observium.org/docs/](http://www.observium.org/docs/)
  - Source code: <https://github.com/turnkeylinux-apps/observium>
  - License: QPL Open Source license
  - Has proprietary features: Yes. <http://www.observium.org/w/License>
- Graphite:
  - Initial release: 2008
  - Developer: Orbitz
  - Website: <https://graphiteapp.org/>
  - Documentation: <http://graphite.readthedocs.io/en/latest/>
  - Source code: <https://github.com/graphite-project>
  - License: Apache 2.0
  - Has proprietary features: No
- Prometheus:
  - Initial release: 2015
  - Developer: Cloud Native Computing Foundation
  - Website: <https://prometheus.io/>

- Documentation: <https://prometheus.io/docs/introduction/overview/>
- Source code: <https://github.com/prometheus>
- License: Apache 2.0
- Has proprietary features: No
- InfluxData:
  - Initial release: 2013
  - Developer: InfluxData
  - Website: <https://influxdata.com/>
  - Documentation: <https://docs.influxdata.com/influxdb/>
  - Source code: <https://github.com/influxdata/>
  - License: MIT
  - Has proprietary features: No

## Log File Monitoring

- Graylog:
  - Initial release: Not found
  - Developer: Graylog, Inc
  - Website: <https://www.graylog.org/>
  - Documentation: <https://github.com/Graylog2/documentation>
  - Source code: <https://github.com/Graylog2/graylog2-server>
  - License: GNU GPLv3
  - Has proprietary features: Yes. <https://www.graylog.org/enterprise>
- ELK stack (Elastic Stack)
  - Initial release: Not found
  - Developer: Elastic
  - Website: <https://www.elastic.co/>
  - Documentation: <https://www.elastic.co/guide/index.html>
  - Source code: <http://github.com/elastic>
  - License: Apache 2.0
  - Has proprietary features: No

- Current use in government sector: King Fahd University of Petroleum & Minerals

### ٣,٧ إدارة خدمات تقنية المعلومات

Commercial alternatives: HPSM and BMC Remedy.

- GLPi:
  - Initial release: 2003
  - Developer: Teclib' & Contributors
  - Website: <http://www.glpi-project.org/?lang=en>
  - Documentation: <http://glpi-project.org/DOC/EN/>
  - Source code: <https://github.com/glpi-project/glpi/releases>
  - License: GNU GPLv2
  - Has proprietary features: No
- CMDBuild:
  - Initial release: 2014 (stable)
  - Developer: Tecnoteca
  - Website: <http://www.cmdbuild.org/en/>
  - Documentation: <http://www.cmdbuild.org/en/documentazione>
  - Source code: <http://www.cmdbuild.org/en/download>
  - License: AGPLv3
- ]project-open[:
  - Initial release:
  - Developer:
  - Website: <http://www.project-open.com/en/solutions/itsm/>
  - Documentation: <http://www.project-open.com/en/>
  - Source code: <https://github.com/project-open> , <http://www.project-open.com/en/list-packages>
  - License: GNU GPLv3
  - Has proprietary features: Yes. <http://www.project-open.com/en/products/editions.html>

- Kuwaiba:
  - Initial release: 2010
  - Developer: Neotropic
  - Website: <http://kuwaiba.neotropic.co/>
  - Documentation: <http://sourceforge.net/projects/kuwaiba/files/Docs/>
  - Source code: <http://kuwaiba.neotropic.co/pages/downloads/>
  - License: Eclipse Public License v1.0
  - Has proprietary features: No

### ٣,٨ نظم قواعد البيانات العلائقية (SQL)

Commercial alternatives: Oracle Database, Microsoft SQL Server, IBM DB2, and Sybase.

- PostgreSQL:
  - Initial release: 1996
  - Developer: PostgreSQL Global Development Group
  - Website: <https://www.postgresql.org/>
  - Documentation: <https://www.postgresql.org/docs/>
  - Source code: <https://git.postgresql.org/gitweb/?p=postgresql.git>
  - License: PostgreSQL License
  - Has proprietary features: No
  - Current use in government sector: King Fahd University of Petroleum & Minerals
- MySQL:
  - Initial release: 1995
  - Developer: Oracle Corporation
  - Website: <https://www.mysql.com/>
  - Documentation: <https://dev.mysql.com/doc/>
  - Source code: <https://github.com/mysql/mysql-server>
  - License: GNU GPLv2
  - Has proprietary features: Yes. <https://www.mysql.com/products/>

- Current use in government sector: King Khaled University, Prince Sattam University
- MariaDB:
  - Initial release: 2009
  - Developer: MariaDB Foundation
  - Website: <https://mariadb.org/>
  - Documentation: <https://mariadb.com/kb/en/mariadb/documentation/>
  - Source code: <https://github.com/MariaDB/server>
  - License: GNU GPLv2
  - Has proprietary features: No
- Firebird:
  - Initial release: 2000
  - Developer: Firebird Project
  - Website: <http://firebirdsql.org/>
  - Documentation: <http://firebirdsql.org/en/documentation/>
  - Source code: <https://github.com/FirebirdSQL/firebird.git>
  - License: IPL (InterBase Public License), IDPL (Initial Developer's Public Licence)
  - Has proprietary features: No
- SQLite:
  - Initial release: 2000
  - Developer: D. Richard Hipp
  - Website: <https://www.sqlite.org>
  - Documentation: <https://www.sqlite.org/docs.html>
  - Source code: <http://www.sqlite.org/cgi/src>
  - License: Public Domain
  - Has proprietary features: No:

## ٣,٩ نظم قواعد البيانات NoSQL

(aka key-value database, object database, document database):

- Cassandra:

- Initial release: 2008
- Developer: Apache Software Foundation
- Website: <http://cassandra.apache.org/>
- Documentation: <http://cassandra.apache.org/doc/>
- Source code: <https://github.com/apache/cassandra>
- License: Apache 2.0
- Has proprietary features: No
  
- Hadoop:
  - Initial release: 2011
  - Developer: Apache Software Foundation
  - Website: <http://hadoop.apache.org/>
  - Documentation: <http://hadoop.apache.org/docs/stable/>
  - Source code: <https://git-wip-us.apache.org/repos/asf/hadoop.git>
  - License: Apache 2.0
  - Has proprietary features: No
  
- MongoDB:
  - Initial release: 2009
  - Developer: MongoDB Inc.
  - Website: <https://www.mongodb.org/>
  - Documentation: <https://docs.mongodb.com/>
  - Source code: <https://github.com/mongodb/mongo>
  - License: Database Server and Tools (AGPLv3)
  - Has proprietary features: No
  
- Riak:
  - Initial release: August 17, 2009
  - Developer: Basho Technologies
  - Website: <http://basho.com/products/>
  - Documentation: <http://docs.basho.com/>
  - Source code: <http://info.basho.com/Riak-Open-Source-Download.html>
  - License: Apache Licence 2.0

- Has proprietary features: Yes. <http://basho.com/products/riak-kv/#commercial>
- CouchDB:
  - Initial release: 2005
  - Developer: Apache Software Foundation
  - Website: <http://couchdb.apache.org/>
  - Documentation: <http://docs.couchdb.org/en/2.0.0/>
  - Source code: <https://github.com/apache?query=couchdb>
  - License: Apache Licence 2.0
  - Has proprietary features: No
- CouchBase:
  - Initial release: August 2010
  - Developer: Couchbase Inc.
  - Website: <http://www.couchbase.com>, <http://developer.couchbase.com/>
  - Documentation: <http://developer.couchbase.com/documentation-archive>
  - Source code: <http://www.couchbase.com/nosql-databases/downloads>
  - License: Apache Licence 2.0
  - Has proprietary features: No
- Redis:
  - Initial release: 2009
  - Developer: Salvatore Sanfilippo
  - Website: <http://redis.io/>
  - Documentation: <http://redis.io/documentation>
  - Source code: <https://github.com/antirez/redis>
  - License: BSD-3-Clause
  - Has proprietary features: No

### ٣,١ خادم ذاكرة التخزين المؤقت

- Varnish:
  - Initial release: 2006
  - Developer: Poul-Henning Kamp, Redpill-Linpro, Varnish Software

- Website: <https://varnish-cache.org/>
- Documentation: <https://varnish-cache.org/docs/index.html>
- Source code: <https://varnish-cache.org/releases/index.html>
- License: BSD-2-Clause
- Has proprietary features: No
- Current use in government sector: King Khaled University, Prince Sattam University
- Memcached:
  - Initial release: 2003
  - Developer: Community
  - Website: <https://memcached.org/>
  - Documentation: <https://github.com/memcached/memcached/wiki>
  - Source code: <https://memcached.org/downloads>
  - License: BSD-3-Clause
  - Has proprietary features: No
  - Current use in government sector: King Khaled University, King Fahd University of Petroleum & Minerals

### ٣,١١ مصادقة الدخول / خادم الدخول المفرد

- Apereo CAS (Jasig CAS):
  - Initial release: 2004
  - Developer: Apereo Foundation
  - Website: <https://www.apereo.org/projects/cas>
  - Documentation: <https://apereo.github.io/cas/>
  - Source code: <https://github.com/apereo/cas>
  - License: Apache 2.0
  - Current use in government sector: King Khaled University, King Fahd University of Petroleum & Minerals.
  - Has proprietary features: No
- WSO2 Identity Server:

- Initial release:
- Developer: WSO2
- Website: <http://wso2.com/products/identity-server/>
- Documentation: <https://docs.wso2.com/display/IS520/WSO2+Identity+Server+Documentation>
- Source code:
- <https://github.com/wso2/product-is>
- <https://wso2.github.io/github-repositories.html>
- License: Apache 2.0
- Has proprietary features:
- Shibboleth:
  - Initial release:
  - Developer:
  - Website: <https://shibboleth.net/>
  - Documentation: <https://wiki.shibboleth.net/confluence/>
  - Source code: <http://svn.shibboleth.net/view/> (soon to be migrated to <https://git.shibboleth.net/view/>)
  - License: Apache 2.0
  - Has proprietary features: No
- JOSSO
  - Initial release: Not found
  - Developer: Atricore
  - Website: <http://www.josso.org/>
  - Documentation: <http://www.josso.org/> (Getting started, Architecture, Tutorial, Reference guide)
  - Source code: <https://github.com/atricore/josso2>
  - License: LGPLv2.1
  - Has proprietary features: Yes, <http://www.atricore.com/pricing>
- Gluu
  - Initial release: Not found
  - Developer: Gluu

- Website: <https://www.gluu.org/>
- Documentation: <https://www.gluu.org/docs/>
- Source code: <https://github.com/GluuFederation>
- License: MIT. Included components: Apache 2.0, CDDL 1.0, AGPL 3.0, MIT
- Has proprietary features: No, but editions with support are available.
- LemonLDAP
  - Initial release: Not found
  - Developer: Community
  - Website: <http://lemonldap-ng.org/>
  - Documentation: <http://lemonldap-ng.org/documentation>
  - Source code: <http://websvn.ow2.org/listing.php?repname=lemonldap>
  - License: GNU GPLv2
  - Has proprietary features: No
- SimpleSAMLphp
  - Initial release: Not found
  - Developer: Community
  - Website: <https://simplesamlphp.org/>
  - Documentation: <https://simplesamlphp.org/docs/stable/>
  - Source code: <https://github.com/simplesamlphp/simplesamlphp>
  - License: LGPLv2.1
  - Has proprietary features:
- OpenAM
  - Initial release: Not found
  - Developer: ForgeRock
  - Website: <https://forgerock.org/openam/>
  - Documentation: <https://backstage.forgerock.com/docs/openam>
  - Source code: <https://stash.forgerock.org/projects/OPENAM/repos/openam/>
  - License: CDDL
  - Has proprietary features: No

## ٣,١٢ خادم البريد الإلكتروني

Commercial alternatives: MS Exchange and IBM Domino.

- Sendmail:
  - Initial release: 1983
  - Developer: Eric Allman
  - Website: <http://www.sendmail.com/>
  - Documentation: [http://www.sendmail.com/sm/open\\_source/docs/](http://www.sendmail.com/sm/open_source/docs/)
  - Source code: [http://www.sendmail.com/sm/open\\_source/download/](http://www.sendmail.com/sm/open_source/download/)
  - License: Sendmail License
  - Has proprietary features: No
- Exim:
  - Initial release: 1995
  - Developer: Philip Hazel
  - Website: <http://www.exim.org/>
  - Documentation: <http://www.exim.org/docs.html>
  - Source code: <https://github.com/Exim/exim>
  - License: GNU GPLv2 or later
  - Has proprietary features:
- Postfix:
  - Initial release: 1998
  - Developer: Wietse Venema and many others
  - Website: <http://www.postfix.org/>
  - Documentation: <http://www.postfix.org/documentation.html>
  - Source code: <http://postfix.trisect.eu/>
  - License: IBM Public License
  - Has proprietary features: No

## ٣,١٣ خادم الويب

Commercial alternatives: Microsoft IIS, IBM HTTP Server, and Oracle HTTP Server.

- Apache httpd:

- Initial release: 1995
  - Developer: Apache Software Foundation
  - Website: <https://httpd.apache.org/>
  - Documentation: <https://httpd.apache.org/docs/>
  - Source code: <https://github.com/apache/httpd>
  - License: Apache 2.0
  - Has proprietary features: No
  - Current use in government sector: King Khaled University, Prince Sattam University, University of Hail and King Fahd University of Petroleum & Minerals.
- Nginx:
    - Initial release: 2004
    - Developer: Nginx, Inc.
    - Website: <https://nginx.org/en/>
    - Documentation: <https://nginx.org/en/docs/>
    - Source code: <https://github.com/nginx/nginx>
    - License: BSD-2-Clause
    - Has proprietary features: No
    - Current use in government sector: Prince Sattam University
- Lighttpd:
    - Initial release: 2003
    - Developer: Lighttpd Developers
    - Website: <https://www.lighttpd.net/>
    - Documentation: <https://redmine.lighttpd.net/projects/1/wiki/Docs>
    - Source code: <https://github.com/lighttpd>
    - License: BSD-3-Clause
    - Has proprietary features: No
- Cherokee:
    - Initial release: 2013 (stable release)

- Developer: Álvaro López Ortega, Cherokee Project
  - Website: <http://cherokee-project.com/>
  - Documentation: <http://cherokee-project.com/doc>
  - Source code: <https://github.com/cherokee>
  - License: GNU GPLv2
  - Has proprietary features: No
- Hiawatha
    - Initial release: 2002
    - Developer: Hugo Leisink
    - Website: <https://www.hiawatha-webserver.org/>
    - Documentation: <https://www.hiawatha-webserver.org/howto>
    - Source code: <https://github.com/hsleisink/hiawatha>
    - License: GNU GPLv2
    - Has proprietary features: No

## ٣,١٤ الاتصال عبر بروتوكول الإنترنت

- Asterisk:
  - Initial release: 1999
  - Developer: Digium
  - Website: <http://www.asterisk.org/>
  - Documentation:  
<https://wiki.asterisk.org/wiki/display/AST/Asterisk+I3+Documentation>
  - Source code: <https://github.com/asterisk>
  - License: GNU GPLv2
  - Current use in government sector: Technical and Vocational Training Corporation
- FreeSwitch:
  - Initial release: 2006
  - Developer: Anthony Minessale
  - Website: <https://freeswitch.org/>

- Documentation: <https://wiki.freeswitch.org/wiki/Documentation>
- Source code:  
<https://freeswitch.org/stash/projects/FS/repos/freeswitch/browse>
- License: Mozilla Public License 1.1
- Has proprietary features: Yes. <https://freeswitch.com/cart.php?gid=2>

## ٣,١٥ خادم تطبيقات جافا

- Apache Tomcat:
  - Initial release: 1999
  - Developer: Apache Software Foundation
  - Website: <http://tomcat.apache.org/>
  - Documentation: <http://tomcat.apache.org/tomcat-8.0-doc/>
  - Source code: <https://github.com/apache/tomcat>
  - License: Apache 2.0
  - Has proprietary features: No
  - Current use in government sector: King Khaled University
- Apache TomEE:
  - Initial release: 2011
  - Developer: Apache Software Foundation
  - Website: <http://tomee.apache.org/>
  - Documentation: <http://tomee.apache.org/documentation.html>
  - Source code: <https://github.com/apache/tomee>
  - License: Apache 2.0
  - Has proprietary features: No
- Jetty:
  - Initial release: 1995
  - Developer: Eclipse Foundation
  - Website: <http://www.eclipse.org/jetty/>
  - Documentation: <http://www.eclipse.org/jetty/documentation/>
  - Source code: <https://github.com/eclipse/jetty.project>
  - License: Apache 2.0, Eclipse Public License 1.0

- Has proprietary features: No
- WildFly:
  - Initial release: 2014
  - Developer: RedHat
  - Website: <http://wildfly.org/>
  - Documentation: <https://docs.jboss.org/author/display/WFLY8/Documentation>
  - Source code: <https://github.com/wildfly/wildfly>
  - License: LGPLv2.1
  - Has proprietary features: No
- GlassFish:
  - Initial release: 2005
  - Developer: Oracle Corporation
  - Website: <https://glassfish.java.net/>
  - Documentation: <https://glassfish.java.net/documentation.html>
  - Source code: <https://java.net/projects/glassfish/sources/svn/show>
  - License: Either CDDL or GNU GPLv2 + the Classpath exception software license.
  - Has proprietary features: No

## ٣,٦ النسخ الاحتياطي

- Amanda Network Backup :
  - Initial release:
  - Developer:
  - Website: <http://www.amanda.org/>
  - Documentation: [http://wiki.zmanda.com/index.php/User\\_documentation](http://wiki.zmanda.com/index.php/User_documentation)
  - Source code: <http://www.amanda.org/download.php>
  - License: Most of the Amanda source code is covered by the Amanda Copyright and License. Some portions of the Amanda source code are

copyrighted by individual authors and are covered by other licenses such as GNU GPL, LGPL, and Apache License.

- Has proprietary features: Yes. <http://www.zmanda.com/Amanda-Enterprise-Amanda-Community-comparison.html>
- Bacula :
  - Initial release: 2000
  - Developer: Kern Sibbald, and team
  - Website: <https://www.baculasystems.com>
  - Documentation: [http://www.bacula.org/5.2.x-manuals/en/main/main/Bacula\\_Main\\_Reference.html](http://www.bacula.org/5.2.x-manuals/en/main/main/Bacula_Main_Reference.html)
  - Source code: <http://www.bacula.org/git/cgit.cgi/bacula/>
  - License: AGPLv3
  - Has proprietary features: Yes.  
<https://www.baculasystems.com/products/selective-migration-plan/enterprise-community-comparison>

### ٣,١٧ التكامل المستمر والتوزيع المستمر

- Jenkins:
  - Initial release: 2011
  - Developer: Community
  - Website: <https://jenkins.io/>
  - Documentation: <https://jenkins.io/doc/>
  - Source code: [github.com/jenkinsci](https://github.com/jenkinsci)
  - License: Expat
  - Has proprietary features: No
- Buildbot:
  - Initial release: 2013
  - Developer: Dustin J. Mitchell
  - Website: <http://buildbot.net/>
  - Documentation: <https://docs.buildbot.net/>
  - Source code: <https://github.com/buildbot/buildbot>

- License: GNU GPLv2
- Has proprietary features: No
- Current use in government sector: King Fahd University of Petroleum & Minerals
- Strider:
  - Initial release: Not found
  - Developer: Community
  - Website: <https://strider-cd.github.io/>
  - Documentation: <http://strider.readthedocs.io/en/latest/install.html>
  - Source code: <https://github.com/Strider-CD/strider>
  - License: BSD License
  - Has proprietary features: No
- GoCD:
  - Initial release: Not found
  - Developer: thoughtworks
  - Website: <https://www.go.cd/>
  - Documentation: <https://docs.go.cd/current/>
  - Source code: <https://github.com/gocd/gocd>
  - License: Apache 2.0
  - Has proprietary features: Yes. <https://www.thoughtworks.com/go/#support>

## ٣,٨ إدارة شفرة المصدر

- Git:
  - Initial release: 2005
  - Developer: Linus Torvalds
  - Website: <https://git-scm.com/>
  - Documentation: <https://git-scm.com/documentation>
  - Source code: <https://github.com/git/git>
  - License: GNU GPLv2 and GNU LGPLv2.1
  - Has proprietary features: No

- Current use in government sector: Riyadh Municipality and Prince Sattam University
- Mercurial:
  - Initial release: 2005
  - Developer: Matt Mackall
  - Website: <https://www.mercurial-scm.org/>
  - Documentation: <http://hgbook.red-bean.com/index.html>
  - Source code: <https://www.mercurial-scm.org/wiki/Download>
  - License: GNU GPLv2
  - Has proprietary features: No
  - Current use in government sector: King Fahd University of Petroleum & Minerals
- Darcs:
  - Initial release: 2003
  - Developer: Guillaume Hoffmann (and others)
  - Website: <http://darcs.net/>
  - Documentation: <http://darcs.net/manual/>
  - Source code:
  - License: GNU GPLv2 or later
  - Has proprietary features: No
- Fossil:
  - Initial release: 2006
  - Developer: D. Richard Hipp
  - Website: <https://www.fossil-scm.org/>
  - Documentation: <https://www.fossil-scm.org/index.html/doc/trunk/www/permutatedindex.html>
  - Source code: <https://www.fossil-scm.org/index.html/uv/download.html>
  - License: BSD-2-Clause
  - Has proprietary features: No
- Subversion:

- Initial release: 2000
- Developer: Apache Software Foundation
- Website: <https://subversion.apache.org/>
- Documentation: <https://subversion.apache.org/docs/>
- Source code: <https://subversion.apache.org/download/>
- License: Apache 2.0
- Has proprietary features: No

## ٣,١٩ إدارة الإعدادات

- Puppet:
  - Initial release: 2005
  - Developer: Puppet Labs
  - Website: <https://puppet.com/>
  - Documentation: <https://docs.puppet.com/>
  - Source code: <https://github.com/puppetlabs/puppet>
  - License: Apache for >2.7.0, GPL for prior versions
  - Has proprietary features: No
- Chef:
  - Initial release: 2009
  - Developer: Chef
  - Website: <https://www.chef.io>
  - Documentation: <https://docs.chef.io/>
  - Source code: <https://github.com/chef/chef>
  - License: Apache 2.0
  - Has proprietary features: No
- SaltStack:
  - Initial release: 2011
  - Developer: Thomas S Hatch
  - Website: <https://saltstack.com/>
  - Documentation: <https://docs.saltstack.com/en/develop/>
  - Source code: <https://github.com/saltstack/salt>

- License: Apache 2.0
- Has proprietary features: Yes. <https://saltstack.com/saltstack-enterprise/>
- Ansible:
  - Initial release: 2012
  - Developer: Michael DeHaan, RedHat
  - Website: <https://www.ansible.com/>
  - Documentation: <http://docs.ansible.com/>
  - Source code: <https://github.com/ansible/ansible>
  - License: GNU GPLv3
  - Has proprietary features: No
  - Current use in government sector: King Fahd University of Petroleum & Minerals
- CFEngine:
  - Initial release: 1993
  - Developer: Mark Burgess, CFEngine AS
  - Website: <https://cfengine.com/>
  - Documentation: <https://docs.cfengine.com/lts/>
  - Source code: <https://cfengine.com/product/community/source-code/>
  - License: GNU GPLv3
  - Has proprietary features: Yes. <https://cfengine.com/product/feature-map/>

## ٣,٢٠ المسح وجمع البيانات

Commercial alternatives: KeySurvey WorldAPP, Survey Monkey, and Feedback Server.

- Limesurvey (PHPSurveyor):
  - Initial release: 2003
  - Developer: Carsten Schmitz (and others)
  - Website: <http://www.limesurvey.org/>
  - Documentation: <https://manual.limesurvey.org/>
  - Source code: <https://www.limesurvey.org/downloads/>
  - License: GNU GPLv2 or later
  - Has proprietary features: No

- Current use in government sector: Prince Sattam University

## ٤ التطوير

### ٤,١ لغات البرمجة (المتجمات وبيئات التشغيل)

- GCC
  - Initial release: 1987
  - Developer: GNU Project
  - Website: <https://gcc.gnu.org/>
  - Documentation: <https://gcc.gnu.org/>
  - Source code: <https://gcc.gnu.org/viewcvs/gcc/> , <https://github.com/gcc-mirror/gcc>
  - License: GNU GPLv3 or later with GCC Runtime Library Exception
  - Has proprietary features: No
- Clang
  - Initial release: 2007
  - Developer: Apple Inc. and others
  - Website: <http://clang.llvm.org/>
  - Documentation: <http://clang.llvm.org/>
  - Source code: <http://llvm.org/svn/llvm-project/cfe>
  - License: University of Illinois/NCSA Open Source License
  - Has proprietary features: No
- OpenJDK
  - Initial release: 2007
  - Developer: Oracle Corporation
  - Website: <http://openjdk.java.net/>
  - Documentation: <http://openjdk.java.net/>
  - Source code: <http://openjdk.java.net/>
  - License: GNU GPLv2
  - Has proprietary features: No
- Python

- Initial release: 1991
- Developer: Python Software Foundation
- Website: <https://www.python.org/>
- Documentation: <https://www.python.org/doc/>
- Source code: <https://www.python.org/downloads/>
- License: Python Software Foundation License
- Has proprietary features: No
- Current use in government sector: Riyadh Municipality and King Fahd University of Petroleum & Minerals
- PyPy
  - Initial release: 2007
  - Developer: Community
  - Website: <http://pypy.org/>
  - Documentation: <http://pypy.org/>
  - Source code: <https://bitbucket.org/pypy/pypy>
  - License: MIT
  - Has proprietary features: No
- Ruby
  - Initial release: 1995
  - Developer: Yukihiro Matsumoto, et al.
  - Website: <https://www.ruby-lang.org/en/>
  - Documentation: <https://www.ruby-lang.org/en/documentation/>
  - Source code: <https://www.ruby-lang.org/en/downloads/>
  - License: BSD-2-Clause
  - Has proprietary features: No
  - Current use in government sector: Riyadh Municipality
- PHP
  - Initial release:
  - Developer: The PHP Development Team, Zend Technologies
  - Website: <https://secure.php.net/>
  - Documentation: <https://secure.php.net/docs.php>

- Source code: <https://secure.php.net/downloads.php>
  - License: PHP License v3.01 (OSI Certified, BSD-style license)
  - Has proprietary features: No
  - Current use in government sector: King Khaled University, Prince Sattam University, Riyadh Municipality and King Fahd University of Petroleum & Minerals.
- 
- Perl 5
    - Initial release: 1987
    - Developer: Larry Wall
    - Website: <https://www.perl.org/>
    - Documentation: <https://www.perl.org/docs.html> , <http://perldoc.perl.org/>
    - Source code: <https://www.perl.org/get.html>
    - License: Artistic License 1.0 and GNU GPLv1 or later
    - Has proprietary features: No
    - Current use in government sector: King Fahd University of Petroleum & Minerals
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- Go
    - Initial release: 2009
    - Developer: Google Inc.
    - Website: <https://golang.org/>
    - Documentation: <https://golang.org/doc/> , <https://golang.org/project/>
    - Source code: <https://github.com/golang/go>
    - License: BSD-3-Clause
    - Has proprietary features: No
- 
- Rust
    - Initial release: 2013
    - Developer: Rust Project Developers
    - Website: <https://www.rust-lang.org/en-US/>
    - Documentation: <https://www.rust-lang.org/en-US/documentation.html>

- Source code: <https://www.rust-lang.org/en-US/downloads.html>
- License: Apache 2.0 and MIT
- Has proprietary features: No
- Lua
  - Initial release: 1993
  - Developer: Community
  - Website: <https://www.lua.org/>
  - Documentation: <http://www.lua.org/docs.html>
  - Source code: <https://www.lua.org/source/>
  - License: MIT
  - Has proprietary features: No
- Erlang
  - Initial release: 1986
  - Developer: Ericsson
  - Website: <https://www.erlang.org/>
  - Documentation: <https://www.erlang.org/docs>
  - Source code: <https://www.erlang.org/downloads>
  - License: Apache 2.0
  - Has proprietary features: No

## ٤,٢ إطار عمل تطوير الويب

- Django (Python)
  - Initial release: 2005
  - Developer: Django Software Foundation
  - Website: <https://www.djangoproject.com/>
  - Documentation: <https://docs.djangoproject.com/en/1.10/>
  - Source code: <https://www.djangoproject.com/download/>
  - License: BSD-3-Clause
  - Has proprietary features: No
  - Current use in government sector: King Fahd University of Petroleum & Minerals

- Pyramid (Python) [Pylons project]
  - Initial release: 2008
  - Developer: Chris McDonough, Ben Bangert
  - Website: <https://trypyramid.com/>, <http://pylonsproject.org/>
  - Documentation: <http://docs.pylonsproject.org/projects/pyramid/en/latest/>
  - Source code: <https://github.com/Pylons/pyramid>
  - License: BSD License
  - Has proprietary features: No
- Flask (Python)
  - Initial release: 2010
  - Developer: Armin Ronacher
  - Website: <http://flask.pocoo.org/>
  - Documentation: <http://flask.pocoo.org/docs/>
  - Source code: <https://github.com/pallets/flask>
  - License: BSD-3-Clause
  - Has proprietary features: No
- Ruby on Rails (Ruby)
  - Initial release: 2005
  - Developer: David Heinemeier Hansson
  - Website: <http://rubyonrails.org/>
  - Documentation: <http://guides.rubyonrails.org/> , <http://rubyonrails.org/>
  - Source code: <https://github.com/rails/rails>
  - License: MIT
  - Has proprietary features: No
- Spring Framework (Java)
  - Initial release: 2002
  - Developer: Pivotal Software
  - Website: <http://projects.spring.io/spring-framework/>
  - Documentation: <https://spring.io/docs>
  - Source code: <https://github.com/spring-projects/spring-framework>

- License: Apache 2.0
- Has proprietary features: No
- Sprint Boot (Java)
  - Initial release: Not found
  - Developer: Pivotal Software
  - Website: <http://projects.spring.io/spring-boot/>
  - Documentation: <https://spring.io/docs>
  - Source code: <https://github.com/spring-projects/spring-boot>
  - License: Apache 2.0
  - Has proprietary features: No
- Ninja Framework (Java)
  - Initial release: 2012
  - Developer: The Ninjas
  - Website: <http://www.ninjaframework.org/>
  - Documentation: <http://www.ninjaframework.org/>
  - Source code: <https://github.com/ninjaframework/ninja>
  - License: Apache 2.0
  - Has proprietary features: No
- Grails (Java/Groovy)
  - Initial release: 2005
  - Developer: Graeme Rocher
  - Website: <https://grails.org/>
  - Documentation: <https://grails.org/documentation.html>
  - Source code: <https://grails.org/download.html> , <https://github.com/grails/grails-core/releases>
  - License: Apache 2.0
  - Has proprietary features: No
- Play Framework (Java/Scala)
  - Initial release: 2007
  - Developer: Lightbend, Zengularity and the community
  - Website: <https://www.playframework.com/>

- Documentation: <https://www.playframework.com/documentation/>
- Source code: <https://www.playframework.com/download>
- License: Apache 2.0
- Has proprietary features: No
- Node.js (JavaScript)
  - Initial release: 2009
  - Developer: Node.js Foundation
  - Website: <https://nodejs.org/>
  - Documentation: <https://nodejs.org/en/docs/>
  - Source code: <https://nodejs.org/en/download/>
  - License: MIT
  - Has proprietary features: No
- MEAN (JavaScript)
  - Initial release: Not found
  - Developer: MEAN.JS Community
  - Website: <http://mean.io/>, <http://meanjs.org/>
  - Documentation: <http://learn.mean.io/> , <http://meanjs.org/docs.html>
  - Source code: <https://github.com/meanjs/mean>
  - License: MIT
  - Has proprietary features: No
- Sail.js (JavaScript)
  - Initial release: Not found
  - Developer: Community
  - Website: <http://sailsjs.com/>, <http://sailsjs.org>
  - Documentation: <http://sailsjs.com/documentation/concepts/>
  - Source code: <https://github.com/balderdashy/sails>
  - License: MIT
  - Has proprietary features: No
- Revel (Go)
  - Initial release: Not found
  - Developer: Revel Team

- Website: <http://revel.github.io/>
- Documentation: <https://revel.github.io/>
- Source code: <https://github.com/revel/> , <https://github.com/revel/revel>
- License: MIT
- Has proprietary features: No
- CodeIgniter (PHP)
  - Initial release: 2006
  - Developer: British Columbia Institute of Technology
  - Website: <https://www.codeigniter.com/>
  - Documentation: <https://www.codeigniter.com/docs>
  - Source code: <https://www.codeigniter.com/download>
  - License: MIT
  - Has proprietary features: No
  - Current use in government sector: Prince Sattam University
- Symfony (PHP)
  - Initial release: 2005
  - Developer: Fabien Potencier, Symfony contributors, SensioLabs.
  - Website: <http://symfony.com/>
  - Documentation: <http://symfony.com/doc/>
  - Source code: <https://symfony.com/download> ,  
<https://github.com/symfony/symfony>
  - License: MIT
  - Has proprietary features: No
- CakePHP
  - Initial release: 2005
  - Developer: Cake Software Foundation, Inc.
  - Website: <https://cakephp.org>
  - Documentation: <https://cakephp.org/#>
  - Source code: <https://github.com/cakephp/cakephp>
  - License: MIT
  - Has proprietary features: No

- Laravel (PHP)
  - Initial release: 2011
  - Developer: Taylor Otwell
  - Website: <https://laravel.com/>
  - Documentation: <https://laravel.com/docs/>
  - Source code: <https://github.com/laravel/laravel>
  - License: MIT
  - Has proprietary features: No

### ٤,٣ إطار عمل الواجهة الامامية للويب

- Bootstrap
  - Initial release: 2011
  - Developer: Bootstrap Core Team
  - Website: <http://getbootstrap.com/>
  - Documentation: <http://getbootstrap.com/>
  - Source code: <http://getbootstrap.com/getting-started/>
  - License: MIT
  - Has proprietary features: No
  - Current use in government sector: Prince Sattam University
- Semantic-UI
  - Initial release: Not found
  - Developer: Community
  - Website: <http://semantic-ui.com/>
  - Documentation: <http://semantic-ui.com/>
  - Source code: <https://github.com/Semantic-Org/Semantic-UI>
  - License: MIT
  - Has proprietary features: No
- Foundation
  - Initial release: 2011
  - Developer: ZURB

- Website: <http://foundation.zurb.com/>
- Documentation: <http://foundation.zurb.com/frameworks-docs.html>
- Source code: <http://foundation.zurb.com/sites/download.html/> ,  
<https://github.com/zurb/foundation-sites>
- License: MIT
- Has proprietary features: No
- Skeleton
  - Initial release: Not found
  - Developer: Community
  - Website: <http://www.getskelton.com/>
  - Documentation: <http://www.getskelton.com/>
  - Source code: <https://github.com/dhg/Skeleton>
  - License: MIT
  - Has proprietary features: No
- Materialize
  - Initial release: Not found
  - Developer: Google Inc.
  - Website: <http://materializecss.com/>
  - Documentation: <http://materializecss.com/>
  - Source code: <https://github.com/Dogfalo/materialize>
  - License: MIT
  - Has proprietary features: No
- Material-UI
  - Initial release: Not found
  - Developer: Google Inc.
  - Website: <http://www.material-ui.com/>
  - Documentation: <http://www.material-ui.com/>
  - Source code: <https://github.com/callemall/material-ui>
  - License: MIT
  - Has proprietary features: No
- Pure

- Initial release: Not found
- Developer: Yahoo!
- Website: <http://purecss.io/>
- Documentation: <http://purecss.io/>
- Source code: <https://github.com/yahoo/pure>
- License: BSD-3-Clause
- Has proprietary features: No

## ٤,٤ إطار عمل الواجهة الأمامية لجافا سكريبت

- AngularJS (JavaScript)
  - Initial release: 2010
  - Developer: Google
  - Website: <https://angularjs.org/> , <https://angular.io/>
  - Documentation: <https://angularjs.org/> , <https://angular.io/>
  - Source code: <https://github.com/angular/angular.js>
  - License: MIT
  - Has proprietary features: No
- React (JavaScript)
  - Initial release: 2013
  - Developer: Facebook, Instagram and community
  - Website: <https://facebook.github.io/react/>
  - Documentation: <https://facebook.github.io/react/>
  - Source code: <https://github.com/facebook/react>
  - License: BSD-3-Clause
  - Has proprietary features: No
- Meteor (JavaScript)
  - Initial release: 2012
  - Developer: Meteor Development Group
  - Website: <https://www.meteor.com/>
  - Documentation: <http://docs.meteor.com/##full/>
  - Source code: <https://github.com/meteor/meteor>

- License: MIT
- Has proprietary features: No
- Ember
  - Initial release: 2011
  - Developer: Ember Core Team
  - Website: <http://emberjs.com/>
  - Documentation: <https://guides.emberjs.com/v2.9.0/>
  - Source code: <https://github.com/emberjs/ember.js>
  - License: MIT
  - Has proprietary features: No
- Vue.js
  - Initial release: 2014
  - Developer: Community
  - Website: <https://vuejs.org/>
  - Documentation:
  - Source code: <https://github.com/vuejs/vue>
  - License: MIT
  - Has proprietary features: No
- Backbone.js
  - Initial release: 2010
  - Developer: Jeremy Ashkenas
  - Website: <http://backbonejs.org/>
  - Documentation: <http://backbonejs.org/>
  - Source code: <https://github.com/jashkenas/backbone>
  - License: MIT
  - Has proprietary features: No

## ٤,٥ أطر تطوير برامج الجوال

Commercial alternatives: Accelerator, RubyMotion, and Smartface.

- Apache Cordova (formerly PhoneGap)
  - Initial release:

- Developer: Apache Cordova
- Website: <https://cordova.apache.org/>
- Documentation: <https://cordova.apache.org/docs/en/latest/>
- Source code: <https://github.com/apache?utf8=%E2%9C%93&query=cordova->
- License: Apache 2.0
- Has proprietary features: No
- NativeScript
  - Initial release: 2015
  - Developer: Telerik by Progress
  - Website: <https://www.nativescript.org/>
  - Documentation: <https://docs.nativescript.org/>
  - Source code: <https://github.com/NativeScript>
  - License: Apache 2.0
  - Has proprietary features: No
- Ionic
  - Initial release: 2013
  - Developer: Drifty
  - Website: <http://ionicframework.com/>
  - Documentation: <http://ionicframework.com/docs/>
  - Source code: <https://github.com/driftyco/ionic>
  - License: MIT
  - Has proprietary features: No
- Onsen UI
  - Initial release: 2013
  - Developer: Monaca, Inc. / Asial Corporation
  - Website: <https://onsen.io/>
  - Documentation: <https://onsen.io/v1/guide.html>
  - Source code: <https://github.com/OnsenUI/OnsenUI>
  - License: Apache 2.0
  - Has proprietary features: No
- Framework7

- Initial release:
- Developer: Community
- Website: <http://framework7.io/>
- Documentation: <https://framework7.io/docs/>
- Source code: <https://github.com/nolimits4web/Framework7>
- License: MIT
- Has proprietary features: No
- Appcelerator Titanium
  - Initial release: 2008
  - Developer: Appcelerator, Inc.
  - Website: <http://www.appcelerator.org/>
  - Documentation: <https://developer.appcelerator.com/help>
  - Source code: [https://github.com/appcelerator/titanium\\_mobile](https://github.com/appcelerator/titanium_mobile)
  - License: Apache 2.0
  - Has proprietary features: Yes. Indie, Pro, and Enterprise packages exist. Major features that support by Pro and Enterprise packages provide App Designer, Appcelerator Studio IDE, and Crash detection.

## ٤,٦ بيئات التطوير المتكاملة

Commercial alternatives: Microsoft Visual Studio, C++Builder, Adobe Dreamweaver.

- Eclipse
  - Initial release: 2001
  - Developer: Eclipse Foundation
  - Website: <https://www.eclipse.org/>
  - Documentation: <http://www.eclipse.org/documentation/>,  
<http://www.vogella.com/tutorials/eclipseide.html>
  - Source code: <http://git.eclipse.org/c/> ,  
<http://download.eclipse.org/eclipse/downloads/>
  - License: Eclipse Public License

- Has proprietary features: No
- Current use in government sector: Prince Sattam University, King Fahd University of Petroleum & Minerals
- Netbeans
  - Initial release: 1996
  - Developer: Oracle Corporation
  - Website: <https://netbeans.org/>
  - Documentation: <https://netbeans.org/kb/index.html>
  - Source code: <https://netbeans.org/features/index.html>
  - License: CDDL-1.0 or GNU GPL2
  - Has proprietary features: No
  - Current use in government sector: King Khaled University, Prince Sattam University, King Fahd University of Petroleum & Minerals
- LightTable
  - Initial release: 2012
  - Developer: Kodowa
  - Website: <http://lighttable.com/>
  - Documentation: <http://docs.lighttable.com/>
  - Source code: <https://github.com/LightTable/LightTable>
  - License: MIT
  - Has proprietary features: No
- Anjuta
  - Initial release: 1999
  - Developer: Johannes Schmid, Sebastien Granjoux, Massimo Cora', James Liggett and others
  - Website: <http://anjuta.org/>
  - Documentation: <http://anjuta.org/>
  - Source code: <http://anjuta.org/>, <https://github.com/GNOME/anjuta>
  - License: GNU GPLv2
  - Has proprietary features: No

- CodeLite
  - Initial release: 2006
  - Developer: Eran Ifrah
  - Website: <https://codelite.org/>
  - Documentation: <http://codelite.org/LiteEditor/Documentation>
  - Source code: <https://downloads.codelite.org/>
  - License: GNU GPLv2
  - Has proprietary features: No
- KDevelop
  - Initial release: 1999
  - Developer: KDE
  - Website: <https://www.kdevelop.org/>
  - Documentation: <https://docs.kde.org/trunk5/en/extragear-kdevelop/kdevelop/index.html>
  - Source code: <https://www.kdevelop.org/>
  - License: GNU GPLv2
  - Has proprietary features: No
- Qt Creator
  - Initial release: 2012
  - Developer: Qt Project
  - Website: <https://www.qt.io/ide/>
  - Documentation: <http://doc.qt.io/>
  - Source code: <https://www.qt.io/download/>
  - License: Available under different licensing options: commercial, GNU GPLv2 and GPLv3, and LGPLv3
  - Has proprietary features: Yes with different features including Official Qt Support Helpdesk, and software patents.

## ٤,٧ الاختبار (الأداء / الوظيفة)

Commercial alternatives: HPE LoadRunner, WAPT, LoadRunner, LoadUI NG Pro, WebLOAD.

- Apache JMeter

- Initial release: 1998
- Developer: Apache Software Foundation
- Website: <http://jmeter.apache.org/>
- Documentation: <http://jmeter.apache.org/usermanual/get-started.html>
- Source code: [http://jmeter.apache.org/download\\_jmeter.cgi](http://jmeter.apache.org/download_jmeter.cgi)
- License: Apache 2.0
- Has proprietary features: No
- Tsung
  - Initial release: 2000
  - Developer: Community
  - Website: <http://tsung.erlang-projects.org/>
  - Documentation: [http://tsung.erlang-projects.org/user\\_manual/index.html](http://tsung.erlang-projects.org/user_manual/index.html)
  - Source code: <https://github.com/processone/tsung>
  - License: GNU GPLv2
  - Has proprietary features: No

## ه تطبيقات سطح المكتب

### اره أنظمة تشغيل سطح المكتب

Commercial alternatives: Microsoft Windows 10 and MacOS X.

Note: Linux distributions are only distributions, or collections, of software packages. As such, they do not necessarily maintain any source code, except perhaps for packaging purposes.

Therefore, it is not critical for a Linux distribution to have a source code link.

- Debian:
  - Initial release: 1993
  - Developer: Community (<https://www.debian.org/devel/>)
  - Website: <https://www.debian.org/>
  - Documentation: <https://www.debian.org/doc/>
  - Source code: [https://alioth.debian.org/softwaremap/full\\_list.php](https://alioth.debian.org/softwaremap/full_list.php)

- <https://anonscm.debian.org/cgit/>
- <https://anonscm.debian.org/hg/>
- <https://anonscm.debian.org/cgi-bin/darcsweb.cgi>
- <https://anonscm.debian.org/bzr/>
- <https://anonscm.debian.org/viewvc>
- License: assortment of licenses; each individual package has its own license
- Has proprietary features: No
- Current use in government sector: King Fahd University of Petroleum & Minerals
- Ubuntu:
  - Initial release: 2004
  - Developer: Canonical Ltd., Ubuntu community
  - Website: <http://www.ubuntu.com/>
  - Documentation: <https://help.ubuntu.com/>
  - Source code: Download using apt-get
  - License: GNU GPLv3
  - Has proprietary features: No
- Fedora:
  - Initial release: 2003
  - Developer: Fedora Project (sponsored by Red Hat)
  - Website: <https://getfedora.org/>
  - Documentation: <https://docs.fedoraproject.org/>
  - Source code: <https://start.fedoraproject.org/> ;  
<https://github.com/fcrepo3/fcrepo>
  - License: Various free software licenses
  - Has proprietary features: Red Hat Enterprise Linux (or RHEL)
- OpenSUSE:
  - Initial release: 2005
  - Developer: openSUSE Project
  - Website: <https://www.opensuse.org/>
  - Documentation: <https://en.opensuse.org/Portal:Documentation>

- Source code: [https://en.opensuse.org/Source\\_code](https://en.opensuse.org/Source_code)
- License: GNU GPLv2 or later
- Has proprietary features: No
- Arch Linux:
  - Initial release: 2002
  - Developer: Aaron Griffin and others
  - Website: <https://www.archlinux.org/>
  - Documentation: <https://wiki.archlinux.org/>
  - Source code: <https://github.com/pid1/test-sec-flags>
  - License: No specific details found
  - Has proprietary features: No
- elementary OS:
  - Initial release: 2011
  - Developer: elementary OS community
  - Website: <https://elementary.io/>
  - Documentation: <https://elementary.io/docs/code/getting-started#launchpad>
  - Source code: <https://code.launchpad.net/elementary>
  - License: GNU GPLv3 or later
  - Has proprietary features: No
- Solus:
  - Initial release: 2012
  - Developer: Ikey Doherty
  - Website: <https://solus-project.com/>
  - Documentation: [https://wiki.solus-project.com/Main\\_Page](https://wiki.solus-project.com/Main_Page)
  - Source code: <https://github.com/solus-project>
  - License: GNU GPLv2
  - Has proprietary features: No

## ٥,٢ متصفحات الويب

- Firefox:

- Initial release: 2002
- Developer: Mozilla Foundation and contributors
- Website: <https://www.mozilla.org/en-US/firefox/>
- Documentation: <https://developer.mozilla.org/en-US/>
- Source code: [https://developer.mozilla.org/en-US/docs/Mozilla/Developer\\_guide/Source\\_Code/Downloading\\_Source\\_Archives](https://developer.mozilla.org/en-US/docs/Mozilla/Developer_guide/Source_Code/Downloading_Source_Archives)
- License: Mozilla Public License 2.0
- Has proprietary features: No
- Current use in government sector: Riyadh Municipality
- Chromium:
  - Initial release: 2008
  - Developer: The Chromium Project
  - Website: <https://www.chromium.org/Home>
  - Documentation: <https://www.chromium.org/developers/design-documents> ; <https://www.chromium.org/developers>
  - Source code: <https://chromium.googlesource.com/>
  - License: The Google-authored portion of Chromium is released under the BSD license, with other parts being subject to a variety of different open-source licenses, including the MIT, the LGPL, the Ms-PL and an MPL/GPL/LGPL tri-license.
  - Has proprietary features: No
- Midori:
  - Initial release: 2007
  - Developer: Christian Dywan, Nancy Runge
  - Website: <http://midori-browser.org/>
  - Documentation: [http://midori-browser.org/contribute/#documentation\\_resources](http://midori-browser.org/contribute/#documentation_resources)
  - Source code: <http://midori-browser.org/download/source/>
  - License: LGPLv2.1 or later
  - Has proprietary features: No

- QupZilla:
  - Initial release: 2010
  - Developer: David Rosca
  - Website: <http://www.qupzilla.com/>
  - Documentation:
  - Source code: <http://www.qupzilla.com/download>
  - License: GNU GPLv3
  - Has proprietary features: No
  
- Konqueror:
  - Initial release: 1996
  - Developer: KDE
  - Website: <https://konqueror.org/features/browser.php>
  - Documentation:  
<https://docs.kde.org/stable4/en/applications/konqueror/index.html>
  - Source code: <https://konqueror.org/getthesource/>
  - License: GPLv2 or later
  - Has proprietary features: No

### ٣,٥ برامج البريد الإلكتروني

Commercial alternatives: Microsoft Outlook.

- Mozilla Thunderbird:
  - Initial release: 2003
  - Developer: Mozilla Foundation
  - Website: <https://wiki.mozilla.org/Thunderbird/Docs>
  - Documentation: <https://www.mozilla.org/en-US/thunderbird/>
  - Source code: <https://github.com/mozilla/mozdownload>
  - License: Mozilla Public License 2.0
  - Has proprietary features: No
  
- Claws Mail:
  - Initial release: 2001
  - Developer: Holger Berndt, Andrej Kacian, et. al

- Website: <http://www.claws-mail.org/>
- Documentation: <http://www.claws-mail.org/documentation.php?section=general>
- Source code: <http://www.claws-mail.org/downloads.php?section=downloads>
- License: GNU GPLv3
- Has proprietary features: No
- Evolution:
  - Initial release: 2000
  - Developer: The GNOME Project
  - Website: <https://wiki.gnome.org/Apps/Evolution>
  - Documentation: <https://wiki.gnome.org/Apps/Evolution>
  - Source code: <https://git.gnome.org/browse/evolution/>
  - License: LGPLv2.1 or later
  - Has proprietary features: No
- Geary:
  - Initial release: 2012
  - Developer: The GNOME Project, Elementary
  - Website: <https://wiki.gnome.org/Apps/Geary>
  - Documentation: <https://wiki.gnome.org/Apps/Geary>
  - Source code: <https://github.com/GNOME/geary>
  - License: GNU LGPLv2.1
  - Has proprietary features: No
- NI:
  - Initial release: 2015
  - Developer: Nylas
  - Website: <https://nylas.com/>
  - Documentation: <https://nylas.github.io/NI/docs/>
  - Source code: <https://github.com/nylas/nl>
  - License: GNU GPLv3
  - Has proprietary features: Yes, a cloud version exists that have multiple plugins such as mail merge.

## ٥,٤ البرامج المكتبية

Commercial alternatives: Microsoft Office.

- LibreOffice:
  - Initial release: 2011
  - Developer: The Document Foundation
  - Website: <https://www.libreoffice.org/>
  - Documentation: <https://www.libreoffice.org/get-help/documentation/>
  - Source code: <https://www.libreoffice.org/about-us/source-code/>
  - License: Mozilla Public License 2.0, LGPLv3 or later
  - Has proprietary features: No
- OpenOffice:
  - Initial release: 2012
  - Developer: Apache Software Foundation
  - Website: [www.openoffice.org](http://www.openoffice.org)
  - Documentation: <http://www.openoffice.org/documentation/>
  - Source code: <https://svn.apache.org/viewvc/openoffice/>
  - License: Apache 2.0
  - Has proprietary features: No
- Calligra Suite:
  - Initial release: 2010
  - Developer: KDE
  - Website: <https://www.calligra.org/>
  - Documentation: <https://www.calligra.org/get-help/>
  - Source code: <https://www.calligra.org/get-calligra/>
  - License: GPL-2.0 or later and LGPL-2.1 or later
  - Has proprietary features: No

## ٥,٥ النشر المكتبي

Commercial alternatives: Microsoft Word.

- Scribus:

- Initial release: 2003
- Developer: The Scribus Team
- Website: <https://www.scribus.net/>
- Documentation: <https://wiki.scribus.net/canvas/Scribus>
- Source code: <https://sourceforge.net/p/scribus/trunk/ci/master/tree/>
- License: GNU GPLv2
- Has proprietary features: No
- LaTeX: <https://www.latex-project.org/>
  - Initial release: 1985
  - Developer: LaTeX3 Project Team
  - Website: <https://www.latex-project.org/>
  - Documentation: <https://www.latex-project.org/help/>
  - Source code: <https://latex-project.org/svnroot/experimental/trunk/>
  - License: LaTeX Project Public License (LPPL)
  - Has proprietary features: No
- AsciiDoctor:
  - Initial release: 2002
  - Developer: Stuart Rackham
  - Website: <http://asciidoc.org/>
  - Documentation: <http://asciidoc.org/>
  - Source code: <https://github.com/asciidoc/asciidoc>
  - License: MIT
  - Has proprietary features: No
  - Current use in government sector: King Fahd University of Petroleum & Minerals
- Sphinx:
  - Initial release: 2008
  - Developer: Georg Brandl
  - Website: [www.sphinx-doc.org/](http://www.sphinx-doc.org/)
  - Documentation: <http://www.sphinx-doc.org/en/1.4.8/contents.html>
  - Source code: <https://github.com/sphinx-doc/sphinx>

- License: BSD-2-Clause
- Has proprietary features: No

## ٥,٦ تحرير الصور

Commercial alternatives: Adobe Photoshop.

- GIMP:
  - Initial release: 1995
  - Developer: The GIMP Development Team
  - Website: <https://www.gimp.org/>
  - Documentation: <https://www.gimp.org/docs/>
  - Source code: <https://www.gimp.org/source/>
  - License: GNU GPLv3 or later
  - Has proprietary features: No
  - Current use in government sector: Prince Sattam University
- Krita:
  - Initial release: 2005
  - Developer: KDE
  - Website: <https://krita.org/en/>
  - Documentation: [https://docs.krita.org/Main\\_Page](https://docs.krita.org/Main_Page)
  - Source code: <https://github.com/KDE/krita>
  - License: GNU GPLv2
  - Has proprietary features: No

## ٥,٧ رسومات المتجهات

Commercial alternatives: Adobe Illustrator.

- Inkscape:
  - Initial release: 2003
  - Developer: Community
  - Website: <https://inkscape.org/en/>

- Documentation: <http://wiki.inkscape.org/wiki/index.php/Inkscape>
- Source code: <https://github.com/inkscape/inkscape>
- License: GNU GPLv2
- Has proprietary features: No

## ٥,٨ المخططات

Commercial alternatives: Microsoft Visio.

- Dia:
  - Initial release: 1998
  - Developer: Dia developers  
Website: <https://wiki.gnome.org/Apps/Dia>
  - Documentation: <http://dia-installer.de/doc/index.html>
  - Source code: <https://git.gnome.org/browse/dia/>
  - License: GNU GPLv2
  - Has proprietary features: No

## ٥,٩ برمجيات التصميم المدعّم بالحاسوب (CAD)

Commercial alternatives: Advance Steel and AutoCAD.

- BRL-CAD:
  - Initial release: 1984
  - Developer: BRL-CAD
  - Website: <https://brlcam.org/>
  - Documentation: [https://brlcam.org/wiki/Main\\_Page](https://brlcam.org/wiki/Main_Page)
  - Source code: <https://github.com/kanzure/brlcam>
  - License: LGPLv2.1
  - Has proprietary features: No
- LibreCAD
  - Initial release: 2011
  - Developer: LibreCAD community
  - Website: <http://librecad.org/cms/home.html>

- Documentation: [http://wiki.librecad.org/index.php/Main\\_Page](http://wiki.librecad.org/index.php/Main_Page)
- Source code: <https://github.com/LibreCAD/LibreCAD>
- License: GNU GPLv2
- Has proprietary features: No
- OpenSCAD
  - Initial release: Not found
  - Developer: Marius Kintel, Clifford Wolf
  - Website: <http://www.openscad.org/>
  - Documentation: <http://www.openscad.org/documentation.html>
  - Source code: <https://github.com/openscad/openscad/>
  - License: GNU GPLv2
  - Has proprietary features: No
- FreeCAD:
  - Initial release: 2002
  - Developer: Jürgen Riegel, Werner Mayer, Yorik van Havre
  - Website: <http://www.freecadweb.org/>
  - Documentation: <http://www.freecadweb.org/wiki/>
  - Source code: <https://github.com/FreeCAD/FreeCAD>
  - License: LGPLv2.1
  - Has proprietary features: No
- QCAD:
  - Initial release: Not found
  - Developer: RibbonSoft
  - Website: <http://www.qcad.org/en/> , <http://www.ribbonsoft.com/en/>
  - Documentation: <http://www.ribbonsoft.com/en/qcad-documentation>
  - Source code: <https://github.com/qcad/qcad>
  - License: GNU GPLv3
  - Has proprietary features: No
- SolveSpace:
  - Initial release: 2008
  - Developer: Jonathan Westhues

- Website: <http://solvespace.com/index.pl>
- Documentation: <http://solvespace.com/index.pl>
- Source code: <https://github.com/solvespace/solvespace/>
- License: GNU GPLv3
- Has proprietary features: No

## ١٠٥ نمذجة ثلاثية الأبعاد

Commercial alternatives: AutoCAD, Autodesk Maya, and 3ds Max.

- Blender:
  - Initial release: 1995
  - Developer: Blender Foundation
  - Website: <http://www.blender.org/>
  - Documentation: <https://www.blender.org/documentation/>
  - Source code: <http://download.blender.org/source/blender-2.78.tar.gz>
  - License: GNU GPLv2 or later
  - Has proprietary features: No
- FreeCAD:
  - Initial release: 2002
  - Developer: Jürgen Riegel, Werner Mayer, Yorik van Havre
  - Website: <http://www.freecadweb.org/>
  - Documentation: <http://www.freecadweb.org/wiki/>
  - Source code: <https://github.com/FreeCAD/FreeCAD>
  - License: LGPLv2.1
  - Has proprietary features: No
- MakeHuman:
  - Initial release: 2000
  - Developer: The MakeHuman team
  - Website: <http://www.makehuman.org/>
  - Documentation:  
<http://www.makehumancommunity.org/wiki/Documentation:Index>
  - Source code: <https://bitbucket.org/MakeHuman/makehuman/commits/all>

- License: AGPLv3
- Has proprietary features: No
- Wings 3D:
  - Initial release: 2001
  - Developer: Björn Gustavsson, Dan Gudmundsson, and others
  - Website: <http://www.wings3d.com/>
  - Documentation: [http://www.wings3d.com/?page\\_id=87](http://www.wings3d.com/?page_id=87)
  - Source code: <https://github.com/bjorng/wings>
  - License: BSD-3-Clause
  - Has proprietary features: No
- K-3D:
  - Initial release: 2009
  - Developer: Timothy Shead
  - Website: <http://www.k-3d.org/>
  - Documentation: [http://www.k-3d.org/wiki/Main\\_Page](http://www.k-3d.org/wiki/Main_Page)
  - Source code: <https://github.com/K-3D/k3d/releases>
  - License: GNU GPLv2
  - Has proprietary features: No
- Art of Illusion:
  - Initial release: 1999
  - Developer: Peter Eastman
  - Website: <http://www.artofillusion.org/>
  - Documentation: <http://www.artofillusion.org/documentation>
  - Source code: <http://www.artofillusion.org/downloads>
  - License: GNU GPLv2
  - Has proprietary features: No
- Gmsh:
  - Initial release: 1997
  - Developer: Christophe Geuzaine and Jean-François Remacle
  - Website: <http://gmsh.info/>
  - Documentation: <http://gmsh.info/#Documentation>

- Source code: <http://gmsh.info/>
- License: GNU GPLv2 or later
- Has proprietary features: No
- OpenFX:
  - Initial release: 2001
  - Developer: Team
  - Website: [www.openfx.org/](http://www.openfx.org/)
  - Documentation: <http://www.openfx.org/doxygen/index.html>
  - Source code: <http://www.openfx.org/download.html>
  - License: GNU GPLv2
  - Has proprietary features: No

## اله تحرير الفيديو

Commercial alternatives: Adobe After Effects, AVS Video Editor, and Camtasia Studio.

- Pitivi:
  - Initial release: 2004
  - Developer: The Pitivi development team
  - Website: <http://www.pitivi.org/>
  - Documentation: <http://www.pitivi.org/manual/>
  - Source code: <https://github.com/GNOME/pitivi>
  - License: LGPLv2.1
  - Has proprietary features: No
- OpenShot:
  - Initial release: 2008
  - Developer: Jonathan Thomas, Andy Finch, Helen McCall, Olivier Girard, Karlinux, and TJ
  - Website: <http://www.openshot.org/>
  - Documentation: <http://www.openshot.org/support/>
  - Source code: <https://code.launchpad.net/openshot>
  - License: GNU GPLv3 or later
  - Has proprietary features: No

- **Avidemux:**
  - Initial release: 2005
  - Developer: "Mean", "Gruntster" and "Fahr"
  - Website: <http://fixounet.free.fr/avidemux/>
  - Documentation: <http://www.avidemux.org/admWiki/doku.php>
  - Source code: <https://sourceforge.net/projects/avidemux/files/>
  - License: GNU GPLv2
  - Has proprietary features: No
- **Cinelerra:**
  - Initial release: 2010
  - Developer: Heroine Virtual
  - Website: <https://cinelerra-cv.org/>
  - Documentation: <https://cinelerra-cv.org/docs.php>
  - Source code: [https://cinelerra-cv.org/main\\_repo.php](https://cinelerra-cv.org/main_repo.php)
  - License: GNU GPLv2
  - Has proprietary features: No
- **Kdenlive:**
  - Initial release: 2008
  - Developer: KDE
  - Website: <https://kdenlive.org/>
  - Documentation: <https://community.kde.org/Kdenlive>
  - Source code: <https://github.com/KDE/kdenlive>
  - License: GNU GPLv2 or later
  - Has proprietary features: No
- **Blender :**
  - Initial release: 1995
  - Developer: Blender Foundation
  - Website: <http://www.blender.org/>
  - Documentation: <https://www.blender.org/documentation/>
  - Source code: <http://download.blender.org/source/blender-2.78.tar.gz>
  - License: GNU GPLv2 or later

- Has proprietary features: No
- VideoLAN Movie Creator (VLMC):
  - Initial release: 2014
  - Developer: VideoLAN
  - Website: [www.videolan.org/vlmc/](http://www.videolan.org/vlmc/)
  - Documentation: <https://wiki.videolan.org/>
  - Source code: <https://code.videolan.org/videolan/vlmc/tree/master>
  - License: GPLv2
  - Has proprietary features: No
- Shotcut:
  - Initial release: 2016
  - Developer: Dan Dennedy
  - Website: <https://www.shotcut.org/>
  - Documentation: <https://www.shotcut.org/tutorials/>
  - Source code: <https://github.com/mltframework/shotcut>
  - License: GNU GPLv3
  - Has proprietary features: No

## ٦ التطبيقات العلمية

### ٦,١ الرياضيات

Commercial alternatives: Matlab and Mathematica.

- Octave:
  - Initial release: 1988
  - Developer: John W. Eaton and many others
  - Website: <https://www.gnu.org/software/octave>
  - Documentation: <https://www.gnu.org/software/octave/doc/interpreter/>
  - Source code: <https://www.gnu.org/software/octave/download.html>
  - License: GNU GPLv3
  - Has proprietary features: No

- SageMath:
  - Initial release: 2005
  - Developer: Community
  - Website: <http://www.sagemath.org/>
  - Documentation: <http://doc.sagemath.org/>
  - Source code: <http://www.sagemath.org/download-source.html>
  - License: GNU GPLv2
  - Has proprietary features: No
  
- Scilab:
  - Initial release: 2008
  - Developer: Scilab Enterprises
  - Website: <http://www.scilab.org/>
  - Documentation: <http://www.scilab.org/index.php/resources/documentation>
  - Source code: <http://www.scilab.org/download/latest>
  - License: CeCILL (GPL compatible)
  - Has proprietary features: No
  
- Maxima:
  - Initial release: 1982
  - Developer: Macsyma group at Project MAC and volunteer contributors
  - Website: <http://maxima.sourceforge.net/>
  - Documentation: <http://maxima.sourceforge.net/documentation.html>
  - Source code: <http://maxima.sourceforge.net/download.html>
  - License: GNU GPLv2
  - Has proprietary features: No

## ٦,٢ النمذجة والمحاكاة الهندسية

Commercial alternatives: OPNET and QualNet.

- OpenFOAM:

- Initial release: 2004
- Developer: CFD Direct
- Website: <http://openfoam.org/>
- Documentation: <http://openfoam.org/resources/>
- Source code: <http://openfoam.org/download/source/>
- License: GNU GPLv3
- Has proprietary features: No
  
- ns-3:
  - Initial release: 2008
  - Developer: ns-3 project
  - Website: <http://www.nsnam.org/>
  - Documentation: <https://www.nsnam.org/documentation/>
  - Source code: <https://www.nsnam.org/>
  - License: GNU GPLv2
  - Has proprietary features: No
  
- GNS3:
  - Initial release: 2008
  - Developer: Jeremy Grossman
  - Website: <https://www.gns3.com/>
  - Documentation: <https://www.gns3.com/support/docs/quick-start-guide-for-windows-us>
  - Source code: <https://github.com/GNS3/gns3-server>
  - License: GNU GPLv3
  - Has proprietary features: No

## V قائمة الموردين / الجهات الحكومية

فيما يلي قائمة من الموردين التي يمكن أن تساعد الجهات والمؤسسات الحكومية في تنفيذ البرمجيات مفتوحة المصدر.

- ملاحظة هامة: تم الحصول على المعلومات الواردة أدناه من المواقع الإلكترونية للموردين. برنامج التعاملات الإلكترونية الحكومية (يسر) لا يتحمل أي مسؤولية أو تبعه عن دقة أو اكتمال، أو موثوقية المعلومات الواردة أدناه.

## ٧,١ النظم الانتقائية

- نوع المؤسسة: خاصة.
- الموقع: <http://ss-sa.co/>
- حول المؤسسة: هي شركة رائدة في مجال تقنية المعلومات والتي تقدم الحلول المتكاملة من خلال سلاسل مختلفة من المنتجات والتطبيقات والخدمات الاستشارية المتقدمة من خلال اعتماد أفضل التقنيات عبر شراكات مع مختلف العلامات التجارية المعروفة على مستوى العالم مثل أودو، دروبال، الفريسكو، أي بي إم، ومايكروسوفت.

## ٧,٢ النظم الحرة

- نوع المؤسسة: خاصة.
- الموقع: <http://freesystems.com.sa>
- حول المؤسسة: هي شركة محترفة أنشئت لتوفير الاستشارات في مجال المصدر المفتوح وخدمات التدريب والدعم في المملكة العربية السعودية ومنطقة الخليج. ويمكن من خلال الخدمات الاستشارية تقديم خارطة طريق ذات قيمة عالية للعملاء من خلال خبراتها في تقنية المصدر المفتوح. والخدمات الاستشارية تمر بعدة خطوات بما في ذلك تقييم إدارة البرمجيات مفتوحة المصدر، وتطوير الاستراتيجيات والسياسات، مواصفات العمليات، استبدال المستندات، واستراتيجية التنفيذ. وهي أيضاً متخصصة في الحزم المفتوحة المصدر بما في ذلك تطبيقات الخادم وسطح المكتب. وتقدم خدماتها من خلال فريق محلي محترف للغاية وبدعم من الشركات العالمية.

### ٧,٣ إم جي كي لاستشارات تقنية المعلومات

- نوع المؤسسة: خاصة.
- الموقع: <http://www.mgkitconsulting.com/>
- حول المؤسسة: توفر إم جي كي خدمات استشارية محترفة شاملة لتقنية المعلومات لعملائها. والغرض من ذلك هو توفير أفضل الحلول المتطورة لتقنية المعلومات بأقل تكلفة ممكنة. فهي تهدف لجعل مشاريع تقنية المعلومات ناجحة ومفيدة. وتهتم بالشركات الصغيرة وكذلك الجهات الحكومية. وتتعاون مع الشركاء المحليين والإقليميين والدوليين لتقديم أفضل الحلول المتاحة لتقنية المعلومات للعملاء. قامت الشركة بتنفيذ مشاريع مفتوحة المصدر في المملكة، وهي شريك اودو Odoo في المملكة لتقديم الخدمات الاستشارية المتعلقة ببرمجيات Odoo / OpenERP مفتوحة المصدر.

### ٧,٤ هندسة النظم العربية

- نوع المؤسسة: خاصة.
- الموقع: <http://www.ase.sa/>
- حول المؤسسة: الهدف الرئيسي للشركة هو توفير الخدمات المحترفة (بما في ذلك الموارد البشرية والاستشارات، والتدريب) لترجمة وتعريب ودمج وتركيب وتشغيل وصيانة أنظمة عمليات الشبكة وكذلك لإعداد وتشغيل والحفاظ على مراكز الاتصال وإدارة الشبكات وغيرها. كما لديها خبرة في تطوير حلول المصادر المفتوحة في المملكة العربية السعودية. حيث تقوم بتخصيص خدماتها لمتطلبات العميل من خلال الاستفادة من قوة ومرونة وفوائد التقنية المفتوحة المصدر. لدى الشركة فريق من مطوري المصادر المفتوحة من ذوي الخبرة يساعد العملاء بمجموعة واسعة من خدمات تطوير المصادر المفتوحة بما في ذلك: تطوير الأنظمة المخصصة المفتوحة المصدر لتناسب الميزانية والمتطلبات، استشارات حول البرمجيات مفتوحة المصدر، وتطوير البوابات باستخدام التقنيات المفتوحة المصدر مثل PHP, Joomla, WordPress وMagnetog وهندسة

التطبيقات المفتوحة المصدر، وتنفيذ المنتجات، والتدريب على التقنيات مفتوحة المصدر، ودمج الأنظمة التقنية الجديدة مع التطبيقات الموجودة.

## ٧,٥ صلني

- نوع المؤسسة: خاصة.
- الموقع: <http://www.slnee.com/>
- حول المؤسسة: هي شركة سعودية استشارية في مجال تقنية المعلومات رائدة لتقديمها خدمات متكاملة تلبي احتياجات القطاعات الحكومية وقطاع الأعمال. لدى الشركة كوادر فنية متخصصة في مشاريع تقنية المعلومات، وذلك من خلال عملها خلال مراحل تصميم وتنفيذ وتطوير الخدمات التقنية. وتتعاون شركة صلني مع عملائها من القطاعين العام والخاص لتوفير أفضل خدمات تقنية المعلومات التي تمكنهم من تحقيق أهدافهم الإستراتيجية وإدارة أعمالهم بفاعلية. كما لدى الشركة خبرة في تطوير حلول المصادر المفتوحة في المملكة العربية السعودية. وهي شريك ذهبي مع اودو في المملكة لتقديم الخدمات الاستشارية.

## ٧,٦ البرمجيات المنطقية

- نوع المؤسسة: خاصة.
- الموقع: <http://www.logicware.sa/>
- حول المؤسسة: هي مؤسسة متخصصة في مجال البرمجيات والأنظمة النمطية. وتقدم خدمات حيوية ودعم متخصص وهي ملتزمة بتوفير حلول وخدمات شاملة للشركات وخدمات الاستشارات الاستراتيجية لشركات قطاع الأعمال.

## ٧,٧ شركة خبير المحدودة

- نوع المؤسسة: خاصة.
- الموقع: <http://www.exp-sa.com/>

- حول المؤسسة: خبير شركة ذات مسؤولية محدودة بكوادر ذات خبرة متميزة، تعمل في عدة مجالات تخدم تقنية المعلومات والاتصالات. كما لديها خبرة واسعة في تنفيذ حلول اودو ووتعد شريكا لهم في المملكة.

## ٧,٨ جرين بورد

- نوع المؤسسة: خاصة.
- الموقع: <http://greenboard.com/>

## ٧,٩ قواعد المعرفة

- نوع المؤسسة: خاصة.
- الموقع: <http://knowledge-bases.com/>
- حول المؤسسة: هي مؤسسة تم تأسيسها من قبل مجموعة من المتخصصين في تقنية المعلومات وخبراء الأعمال وذلك بهدف توفير حلول البرمجيات التي من شأنها أن تساعد الشركات والمؤسسات العامة في تطوير أعمالها وأتمتة عملياتها. وتوفر حلول بدءاً من أنظمة تخطيط موارد المؤسسات لحزم ذكية لوضع نماذج تنبؤ. كما يمكن أن تساعد عملائها من خلال تزويدهم باستشارات حول حلولهم. ولدى الشركة خبرة في تنفيذ الحلول مفتوحة المصدر مثل اودو. كما تنفذ برامج التحليلات وذكاء الأعمال وحلول أنظمة إدارة المدارس والكلية.

## ٧,١٠ موارد

- نوع المؤسسة: خاصة.
- الموقع: <http://mawaready.com>
- حول المؤسسة: هي مؤسسة متخصصة في تنفيذ حلول تخطيط موارد المؤسسات. وتمتلك العديد من سنوات الخبرة في الخدمات وقطاعات التصنيع. فهي تجلب الأفضل في اودو للعمل من أجل مصلحة العميل. منهجيتها لتنفيذ تخطيط موارد المؤسسات فريدة من نوعها وتقدم أفضل قيمة لعملائها. وتتراوح الخدمات بين الحلول السحابية المصممة

خصيصاً للعمليات الرئيسية وكذلك تنفيذ مخصص لكل احتياجات العملاء. كما تقدم الدعم والتدريب لعملاء اودو.

## ٧,١١ ميونيستي

- نوع المؤسسة: خاصة.
- الموقع: <http://www.meunity.com>
- حول المؤسسة: توفر الشركة حل كامل وموثوق به على أساس اودو. وتدمج اودو مع التطبيقات الخارجية مثل Magento و Spagobi (BI) و Asterisk (VOIP) مع منهجية سلسلة في حل واحد لتناسب مع متطلبات العمل.

## ٧,١٢ اودوتيك

- نوع المؤسسة: خاصة.
- الموقع: <http://www.odootec.com>
- حول المؤسسة: هي شركة تقنية تهتم بتخطيط موارد المؤسسات وتتمثل مهمتها في دعم الأعمال التجارية مع برامج التطبيقات المفيدة، كما توفر أيضاً الاستشارات تقنية والدعم التقني إلى فئة واسعة من الأعمال التي تستخدم أو تخطط لاستخدام برامج تخطيط موارد المؤسسات في المملكة العربية السعودية، كما تساهم في تطوير المصادر المفتوحة، من خلال توفير المعلومات حول برمجيات تخطيط موارد المؤسسات المستخدمة.

## ٧,١٣ الحلول الرائدة

- نوع المؤسسة: خاصة.
- الموقع: <http://www.ps-sa.net/>
- حول المؤسسة: هي شركة سعودية رائدة في مجال حلول الأعمال وتهدف إلى خدمة الشركات المتوسطة إلى الكبيرة بحلول أفضل. يتم تطوير حلولها باستخدام تقنيات حديثة لتقديم الحلول الحديثة والوظيفية التي تساعد عملائها على القيام بالأعمال على

نحو أفضل. لدى الشركة خبرة واسعة في تنفيذ الحلول المفتوحة المصدر. وتوفر الخدمات الاحترافية مثل خدمات تطوير دروبال، حلول اودو، وتقديم خدمات دعم قاعدة البيانات PostgreSQL للعملاء.

## ٧,١٤ رائد للتقنية

- نوع المؤسسة: خاصة.
- الموقع: <http://www.raedtechnology.com/>
- حول المؤسسة: هي مزودة حلول الأعمال. وهي واحدة من الشركات القابضة التي أنشئت استجابة للاحتياجات المتزايدة لتنفيذ شامل وناجح لحلول الأعمال التي تلبى أهداف المؤسسات. رائد تشارك في صناعة الحلول البرمجية والخدمات المحترفة والاستشارية. تصنف رائد انها مزودة الحلول والحلول المتكاملة. وتقدم الشركة خدمات استشارية تجارية متعلقة بالحلول المفتوحة المصدر مثل اودو.

## ٧,١٥ سحابية

- نوع المؤسسة: خاصة.
- الموقع: <http://www.sahabyah.com/en>
- حول المؤسسة: توفر مجموعة من الحلول التي تلبى احتياجات مختلف الأعمال من خلال الخدمات السحابية بما في ذلك المحاسبة السحابية وإدارة الموارد البشرية وإدارة المخزون وإدارة إطلاق المهام. كما تقدم الشركة خدمات استشارية تجارية متعلقة بالحلول المفتوحة المصدر مثل اودو.

## ٧,١٦ الحلول الذكية السعودية

- نوع المؤسسة: خاصة.
- الموقع: <https://www.sis.net.sa/>
- حول المؤسسة: هي مجموعة نمت لتصبح واحدة من أكبر الشركات المتخصصة المحلية لتوظيف تقنية المعلومات في الشرق الأوسط. كما لديها امتداد عالمي والتي تمكن

الاستشاريين من خدمة العملاء في جميع أنحاء العالم من خلال مكتبها في الرياض. من خلال تقديم نموذج فريد من نوعه فان عملائها يتمتعون بخدماتها عبر جميع مناطق المملكة ودول الخليج والشرق الأوسط. كما تقدم الشركة خدمات استشارية تجارية متعلقة بالحلول المفتوحة المصدر مثل اودو.

## ٧,١٧ تيك اورج

- نوع المؤسسة: خاصة.
- الموقع: <http://www.techorg.com>
- حول المؤسسة: هي شركة مصرية تقو في القاهرة، تأسست في عام ٢٠١٣، تقدم مجموعة واسعة من حلول وخدمات تقنية المعلومات بما في ذلك، ولكن ليس على سبيل الحصر، الشبكات، الاستعانة بمصادر خارجية، اودو لتخطيط موارد المؤسسات، تطوير المواقع وتطوير التطبيقات المتنقلة. وتمتد أيضا خدماتها إلى أسواق أخرى من خلال فروعها في المملكة العربية السعودية والهند. لديها فريق متخصص من ذوي الخبرة، الذين يسعون جاهدين لتقديم حلول مبتكرة وشاملة من خلال تطوير تطبيقات شاملة تستخدم لتسهيل وتلبية احتياجات الأعمال المختلفة، مما يسمح للشركات بالتمتع بالحلول البرمجية. وقد أعلنت باعتبارها الشريك الرسمي لادو، حيث انها قد أثبتت على مدى السنوات سجل ناجح في التميز والتنفيذ وخدمة العملاء.

## ٧,١٨ وبيرو العربية

- نوع المؤسسة: خاصة.
- الموقع: <http://www.wipro.com/services/open-source/>
- حول المؤسسة: مع تزايد الطلب على المصدر المفتوح باطراد، وبيرو تساعد العملاء على تصور رحلتهم في هذا المجال من خلال توفير إطار عمل فريد. وتركز على التميز في مجالات التطبيقات (الوسيلة، البوابة، الأمن، إدارة المحتوى، إدارة API)، البيانات، الويب وأطر الاتصالات المتنقلة، وانترنت الاشياء والتقنيات السحابية.

[www.yesser.gov.sa](http://www.yesser.gov.sa)