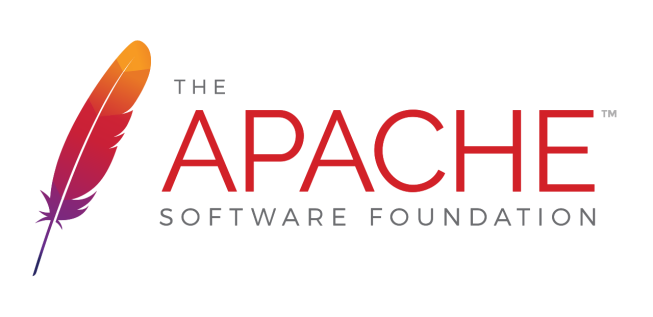
**PRACTICAL:2**

**Report on various Open Source Software**

**APACHE**

**HISTORY:** Beginning in 1995, the Apache Group (later the Apache Software Foundation) released successive versions of [their well-known httpd server](https://en.wikipedia.org/wiki/Apache_HTTP_Server). Their initial license was essentially the same as the old 4-clause [BSD license](https://en.wikipedia.org/wiki/BSD_licenses), with only the names of the organizations changed. It has an extra term that extends from BSD clause 4, saying that derivatives must not bear the same Apache name.

In July 1999, Berkeley accepted the argument put to it by the Free Software Foundation and retired their advertising clause (clause 3) to form the new 3-clause BSD license. In 2000, Apache did likewise and created the Apache License 1.1, in which derived products are no longer required to include attribution in their advertising materials, only in their documentation. Individual packages licensed under the 1.1 version may have used different wording due to varying requirements for attribution or mark identification, but the binding terms were all the same.

In January 2004, ASF decided to depart from the BSD model and produced the Apache License 2.0.

**IDEA:** The stated goals of the license included making it easier for non-ASF projects to use, improving [compatibility](https://en.wikipedia.org/wiki/License_compatibility) with [GPL](https://en.wikipedia.org/wiki/GNU_General_Public_License)-based software, allowing the license to be included by reference instead of listed in every file, clarifying the license on contributions, and requiring a patent license on contributions that necessarily infringe a contributor's own patents.

**DETAILED LICENSING MODEL:** Apache License is [permissive](https://en.wikipedia.org/wiki/Permissive_free_software_licence), unlike [copyleft](https://en.wikipedia.org/wiki/Copyleft) licenses, it does not require a [derivative work](https://en.wikipedia.org/wiki/Derivative_work) of the software, or modifications to the original, to be distributed using the same license. It still requires application of the same license to all unmodified parts. In every licensed file, original copyright, patent, trademark, and attribution notices must be preserved (excluding notices that do not pertain to any part of the derivative works). In every licensed file changed, a notification must be added stating that changes have been made to that file.

As of 2015, according to Black Duck Software and [GitHub](https://en.wikipedia.org/wiki/GitHub), the Apache license is the third most popular license in the [FOSS](https://en.wikipedia.org/wiki/FOSS) domain after [MIT license](https://en.wikipedia.org/wiki/MIT_license) and [GPLv2](https://en.wikipedia.org/wiki/GPLv2).

The [OpenBSD](https://en.wikipedia.org/wiki/OpenBSD) project does not consider the Apache License 2.0 to be an acceptable free license because of its patent provisions. The OpenBSD policy believes that when the license forces one to give up a legal right that one otherwise has, that license is no longer free.

**POPULAR SOFTWARE RELEASED UNDER APACHE:** In October 2012, 8,708 projects located at [SourceForge.net](https://en.wikipedia.org/wiki/SourceForge.net) were available under the terms of the Apache License

**POPULARITY:** Apache is the 3rd most popular licence in FOSS, cross-platform web server that is, by the numbers, the most popular web server in existence.

It’s actively maintained by the [Apache Software Foundation](https://www.apache.org/).

In May 2008, [Google](https://en.wikipedia.org/wiki/Google) mentioned that over 25% of the nearly 100,000 projects then hosted on [Google Code](https://en.wikipedia.org/wiki/Google_Code) were using the Apache License, including the [Android operating system](https://en.wikipedia.org/wiki/Android_(operating_system)).

In addition to its popularity, it’s also one of the oldest web servers.

**IMPACT:** In Apache lincence the user is granted a license to any patent that covers the software. This license is terminated if the user sues anyone over patent infringement related to this software. This condition is added in order to prevent patent litigations.

The Apache License 2.0 makes sure that the user does not have to worry about infringing any patents by using the software.

** GPL**

**HISTORY:** The **GNU** General Public License

 (GNU GPL or simply **GPL**) is a series of widely used [free software licenses](https://en.wikipedia.org/wiki/Free_software_license) that guarantee [end users](https://en.wikipedia.org/wiki/End_user) the freedom to run, study, share, and modify the software.  

Historically, the GPL license family has been one of the most popular software licenses in the [free and open-source software](https://en.wikipedia.org/wiki/Free_and_open-source_software) domain. Prominent free software programs licensed under the GPL include the [Linux kernel](https://en.wikipedia.org/wiki/Linux_kernel) and the [GNU Compiler Collection](https://en.wikipedia.org/wiki/GNU_Compiler_Collection) (GCC).

The GPL was written by Richard Stallman in 1989, for use with programs released as part of the GNU project. The original GPL was based on a unification of similar licenses used for early versions of [GNU Emacs](https://en.wikipedia.org/wiki/GNU_Emacs) (1985), the [GNU Debugger](https://en.wikipedia.org/wiki/GNU_Debugger), and the GNU C Compiler. These licenses contained similar provisions to the modern GPL, but were specific to each program, rendering them incompatible, despite being the same license.

Version 1 of the GNU GPL, released on 25 February 1989, prevented what were then the two main ways that software distributors restricted the freedoms that define free software. The first problem was that distributors may publish [binary files](https://en.wikipedia.org/wiki/Binary_file) only—executable, but not readable or modifiable by humans.

The second version of the license, version 2, was released in 1991. Over the following 15 years, members of the [free software community](https://en.wikipedia.org/wiki/Free_software_community) became concerned over problems in the GPLv2 license that could let someone exploit GPL-licensed software in ways contrary to the license's intent.

Version 3 was developed to attempt to address these concerns and was officially released on 29 June 2007.

**IDEA:** Stallman's goal was to produce one license that could be used for any project, thus making it possible for many projects to share code. The GPL license also includes an optional "any later version" clause, allowing users to choose between the original terms or the terms in new versions as updated by the FSF. Developers can omit it when licensing their software; the Linux kernel, for instance, is licensed under GPLv2 without the "any later version" clause.

According to Stallman, the most important changes were in relation to [software patents](https://en.wikipedia.org/wiki/Software_patents_and_free_software), [free software license](https://en.wikipedia.org/wiki/Free_software_license) compatibility, the definition of "source code", and hardware restrictions on software modifications, such as [tivoization](https://en.wikipedia.org/wiki/Tivoization).

**DETAILED LICENSING MODEL:** Code licensed under several other licenses can be combined with a program under the GPL without conflict, as long as the combination of restrictions on the work as a whole does not put any additional restrictions beyond what GPL allows. In addition to the regular terms of the GPL, there are additional restrictions and permissions one can apply:

1) If a user wants to combine code licensed under different versions of GPL, then this is only allowed if the code with the earlier GPL version includes an "or any later version" statement. For instance, the GPLv3 licensed [GNU LibreDWG](https://en.wikipedia.org/wiki/GNU_LibreDWG) library can't be used anymore by [LibreCAD](https://en.wikipedia.org/wiki/LibreCAD) and [FreeCAD](https://en.wikipedia.org/wiki/FreeCAD) who have GPLv2 only dependencies.

2) Code licensed under [LGPL](https://en.wikipedia.org/wiki/LGPL) is permitted to be linked with any other code no matter what license that code has,though the LGPL does add additional requirements for the combined work. LGPLv3 and GPLv2-only can thus commonly not be linked, as the combined Code work would add additional LGPLv3 requirements on top of the GPLv2-only licensed software. Code licensed under LGPLv2.x without the "any later version" statement can be [relicensed](https://en.wikipedia.org/wiki/Software_relicensing) if the whole combined work is licensed to GPLv2 or GPLv3.

The text of the GPL is itself copyrighted, and the copyright is held by the Free Software Foundation.

**POPULAR SOFTWARE RELEASED UNDER GPL:** MoinMoin is a wiki engine implemented in Python, initially based on the PikiPiki wiki engine.The MoinMoin code is licensed under the GNU General Public License v2.

Also some other softwares such as [CodeLite](https://en.wikipedia.org/wiki/CodeLite), [GNU Compiler Collection](https://en.wikipedia.org/wiki/GNU_Compiler_Collection), [GNU Emacs](https://en.wikipedia.org/wiki/GNU_Emacs), [GNU Parted](https://en.wikipedia.org/wiki/GNU_Parted), etc.

**POPULARITY:** Historically, the GPL license family has been one of the most popular software licenses in [FOSS](https://en.wikipedia.org/wiki/FOSS). The Linuxkernel, MySQL, BusyBox, AdvFS, Blender, VLC media player, and MediaWiki. In 2009, two years after the release of GPLv3, [Google](https://en.wikipedia.org/wiki/Google) open-source programs office manager Chris DiBona reported that the number of open-source project licensed software that had moved from GPLv2 to GPLv3 was 50%, counting the projects hosted at [Google Code](https://en.wikipedia.org/wiki/Google_Code).

**IMPACT:** The sharing of the source code became possible due to the GPL also, the open source software movement has taken several ideas promoted by the GPL and modified them slightly.

** LGPL**

**HISTORY:** The license was originally called the **GNU Library General Public License** and was first published in 1991, and adopted the version number 2 for parity with GPL version 2. The LGPL was revised in minor ways in the 2.1 point release, published in 1999, when it was renamed the GNU Lesser General Public License to reflect the FSF's position that not all libraries should use it. Version 3 of the LGPL was published in 2007 as a list of additional permissions applied to GPL version 3.

In addition to the term "work based on the Program" of GPL, LGPL version 2 introduced two additional clarification terms "work based on the library" and a "work that uses the library".LGPL version 3 partially dropped these terms.

**IDEA:** The LGPL was developed as a compromise between the strong [copyleft](https://en.wikipedia.org/wiki/Copyleft) of the GNU General Public License (GPL) and more permissive licenses such as the BSD licenses and the MIT License.

The word "Lesser" in the title shows that the LGPL does not guarantee the end user's complete freedom in the use of software; it only guarantees the freedom of modification for components licensed under the LGPL, but not for any proprietary components.

**DETAILED LICENSING MODEL:** The LGPL is the permission to relicense under the GPL any piece of software which is received under the LGPL. This feature allows for direct reuse of LGPLed code in GPLed libraries and applications.

Version 3 of the LGPL is not inherently compatible with version 2 of the GPL. However, works using the latter that have given permission to use a later version of the GPL are compatible, a work released under the GPLv2 "or any later version" may be combined with c.

The license uses terminology which is mainly intended for applications written in the C programming language or its family. Franz Inc. published its own preamble to the license to clarify terminology in the Lisp context. LGPL with this preamble is sometimes referred as LLGPL.

**POPULAR SOFTWARE RELEASED UNDER LGPL:**  Most of the 7-Zip source code is under the GNU LGPL license.

GMP is part of the GNU project and is distributed under the GNU Lesser General Public License (LGPL).

Also many other sotwares such as Judoscript, Gtkmm, [LanguageTool](https://en.wikipedia.org/wiki/LanguageTool), [BeanShell](https://en.wikipedia.org/wiki/BeanShell), etc.

**POPULARITY:** The LGPL is the most popular license by a wide margin with over 45% of software being licensed under one or more versions. The next 3 licenses are all GPL compatible in some way meaning 67% to 87% or more of all open source code is GPL compatible and can be added to GPL licensed projects.

**IMPACT:** The LGPL license allows developers and companies to use and integrate a software component released under the LGPL into their own (even proprietary) software without being required by the terms of a strong copyleft license to release the source code of their own components.