Free Community

Open Source software

Asst. Prof. Ashwini Mathur

Richard Stallman

The open-source movement is branched from the free-software movement which began in the late 80s with the launching of the GNU project by Richard Stallman.

What is Open Source ??

The term open source refers to something people can modify and share because its design is publicly accessible.

Free ??

Two meaning of Word “Free”

1. As in not limited or controlled, as in freedom of speech and freedom to distribute.
2. Free as in no cost/Payment or as in often said “free beer”

Open source software

Source code is made available with licence which provides right to :

1. Examine
2. Modify
3. Re-examine

Without restriction on the user’s identity or purpose.

Open Source Software

Open source software is released through a specific kind of license that makes its source code legally available to end-users. There are many such licenses, but typically software is considered open source if:

It is available in source code form without additional cost, meaning users can view the code that comprises the software and make any kind of changes to it they want.

The source code can be repurposed into other new software, meaning anyone can take the source code and distribute their own program from it.

Is open source software free ?

Open source software is also sometimes conflated with the free software movement, which can add to the confusion around whether open source means “free.”

The free software movement grew out of the hacker culture of the 1970s and was formally founded by Richard Stallman as part of the GNU Project and the non-profit Free Software Foundation.

Additionally ..

Usually, “free software” is meant to emphasize a freedom in the rights of end-users, but can sometimes be confused as meaning “free of cost.”

In actuality, neither free software nor open source software denote anything about cost—both kinds of software can be legally sold or given away. Instead, the primary difference between them has to do with sharing.

Core licence in OSS

Permissive

- Any code changes need not be available to recipients
- Often preferred by companies

Example: BSD-licensed software

Restrictive

- Any code changes must be available to all recipients
- Sometimes called “Copyleft”

Example: GPL-licensed software

Other than OSS

Some software has source code that only the person, team, or organization who created it—and maintains exclusive control over it—can modify. People call this kind of software "proprietary" or "closed source" software.

Only the original authors of proprietary software can legally copy, inspect, and alter that software. And in order to use proprietary software, computer users must agree (usually by signing a license displayed the first time they run this software) that they will not do anything with the software that the software's authors have not expressly permitted. Microsoft Office and Adobe Photoshop are examples of proprietary software.

Why do people prefer using open source software?

People prefer open source software to proprietary software for a number of reasons, including:

Control. Many people prefer open source software because they have more control over that kind of software. They can examine the code to make sure it's not doing anything they don't want it to do, and they can change parts of it they don't like. Users who aren't programmers also benefit from open source software, because they can use this software for any purpose they wish—not merely the way someone else thinks they should.

Training. Other people like open source software because it helps them become better programmers. Because open source code is publicly accessible, students can easily study it as they learn to make better software. Students can also share their work with others, inviting comment and critique, as they develop their skills. When people discover mistakes in programs' source code, they can share those mistakes with others to help them avoid making those same mistakes themselves.

Security. Some people prefer open source software because they consider it more secure and stable than proprietary software. Because anyone can view and modify open source software, someone might spot and correct errors or omissions that a program's original authors might have missed. And because so many programmers can work on a piece of open source software without asking for permission from original authors, they can fix, update, and upgrade open source software more quickly than they can proprietary software.

Stability. Many users prefer open source software to proprietary software for important, long-term projects. Because programmers publicly distribute the source code for open source software, users relying on that software for critical tasks can be sure their tools won't disappear or fall into disrepair if their original creators stop working on them. Additionally, open source software tends to both incorporate and operate according to open standards.

Community. Open source software often inspires a community of users and developers to form around it. That's not unique to open source; many popular applications are the subject of meetups and user groups. But in the case of open source, the community isn't just a fanbase that buys in (emotionally or financially) to an elite user group; it's the people who produce, test, use, promote, and ultimately affect the software they love.

Many commercial distributors, including Red Hat, Ubuntu, SUSE, and Oracle, provide long term fee-based support for their distributions, as well as hardware and software certification. All major distributors provide update services for keeping your system primed with the latest security and bug fixes, and performance enhancements, as well as provide online support resources.

Short Quiz [10 minutes]