CST-341-O500 CLC Group

March 1, 2020

CST-341-O500

Researching Open Source Licensing

**What are three different open source licenses? How do the licenses differ? How are the licenses the same?**

Three different examples of common open-source licenses are Apache, GCU General Public Use, and MIT. Members of our group have personally used open-source packages or tools that were licensed under each of these.

All of the above licenses are similar in that they limit the liability of the source code distributors who invoke the license. They also grant those who obtain the source code the right to modify and redistribute the code, albeit with certain differing stipulations they must adhere to.

When the source is redistributed, modified or not, the MIT license requires all copies to include the “THE SOFTWARE IS PROVIDED "AS IS”…." clause which absolves the distributor or prior contributors of any warranty responsibilities for any damages incurred by use of the code (The MIT License, n.d.). Otherwise, the MIT license is the shortest of the three, and likely the most common for web components hosted publicly on sources like GitHub.

The GCU license was created by the Free Software Foundation to ensure similar rights to users as the MIT license, but it also includes clauses that require the privileges of the source code holders to be made known. Just like with the MIT license, all source code holders can freely modify or distribute the code as they wish, for free or for a price. However, once they sell the modified code, the recipient of that code also retains the same privileges they would with the original source. In this way, the license prevents any modified code derivatives to use patents to make the entire source proprietary and “steal” the code from the open-source community (GNU General Public License version 3, n.d.).

The Apache license is similar to the GNU license, except, it grants the source code holders the right to patent the software, with or without modifications. However, the license protects cases of litigation against other contributors to the open-source software. The license states that the day litigation is filed the entity will be forfeiting their patent on the product (Apache License, Version 2.0, n.d.). As with the GCU license, the re-distributor is required to provide the recipient with a copy of the Apache license and strict notices at the top of files where the code has been modified from the original source.

**What happens and who owns the code that you contribute to an open source project?**

The simple and short answer is: it all depends. It depends on the license that the project has, on whether or not you were paid or hired to write that code, and on how that code is used. Some licenses state that you have the right to reuse and duplicate any code that you want, while others require you to give credit to the license holder when any code is used or changed. Others only let you use it, while still others add restrictions to what you can and can’t modify. If you were hired to write a piece of code or to modify the open source code in some way, then the portion that you wrote or the changes that you made fall into the ownership of the entity that hired you. The last caveat affects the code you write. By this I mean: is it a derivative version of the open source code or is it something based on another open source platform? The article I read gives the example of changing the Linux code versus writing an application that can only run on a Linux based computer. The former is a case where the code would have to be compliant with the Linux OS license while the latter wouldn’t have to conform to any license at all (in fact it wouldn’t even have to be open source) because it’s not a derivative work of the Linux operating system.

**Research an open Source project from the Apache Foundation and provide a detailed write up for how you can volunteer and contribute to one of their projects**

Volunteering for an apache project is surprisingly easy. Most don’t have an interview process to vet people from starting to contribute. As such, most projects are wide open for anyone to contribute who has the knowledge. They suggest finding something that you have a personal investment in. This personal investment could be trying to solve a problem that you’re facing, pursuing open-source contribution as a fulfilling hobby, or even a pure hunger to learn. There’s a list of Apache Foundation projects you can freely view (they have it organized by category, language, and alphabetically by name). When you find something that interests you, you can add yourself to the mailing list for that project and then begin reading and learning what the status, goals, and needs for the project are. Another feature that can be helpful if you’re looking for something really useful to do, you can find the issue/bug tracker for a project and start checking things off of that list that can help make projects better and more useful.

One Apache Foundation project is the NetBeans IDE, which is an all-in-one development and tooling editor for PHP, Java, HTML, JavaScript, and a few other languages. This project is hosted and maintained primarily through a public GitHub repository. If someone wished to contribute to this project, they could start by following the new contributor instructions (learning to build and run NetBeans on different machines, learning to run the unit tests, exploring the project structure, etc.). Then, they can search through the issues (on Apache’s Jira issues boards) and find one to start debugging. Once an ample issue is found, even if it’s as minor as a documentation update, the contributor will fork (copy) the GitHub repo to their personal profile. After all their changes have been committed to a new branch off ‘master’, they will create a PR (pull request) to merge their code changes back into the main project source.

References

Apache License, Version 2.0. (n.d.). Retrieved February 24, 2020, from <https://opensource.org/licenses/Apache-2.0>

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