Open-Source Introduction

Definition, Examples and Tutorial

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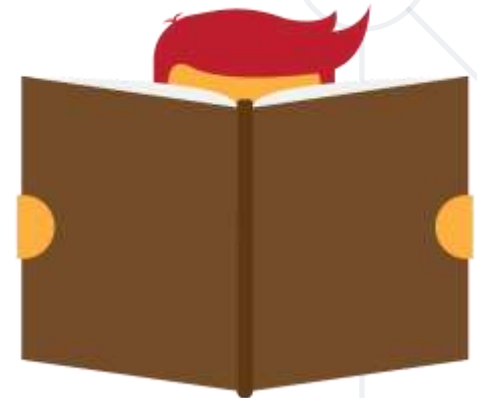
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Definition

What is Open-Source ?

Definition

- Something that people can **modify** and **share** because it's design is publicly accessible

- Open source software is software with source code that **anyone** can inspect, modify, and enhance

- Open source technology and open source thinking both benefit **programmers** and **non-programmers**

What are Open Source Licenses ?

- Open source licenses are licenses that **comply** with the Open Source Definition

  - They allow software to be **briefly** used, modified and shared

- To be approved by OSI, a license must go through the OSI's **license review process**

Popular Licenses

- The following OSI-approved licenses are **popular**, widely used, or have strong communities:

  - Apache License 2.0

  - GNU General Public License (GPL)

  - MIT license

  - Mozilla Public License 2.0

  - Common Development and Distribution License

  - Eclipse Public License

  - Comparison between licenses
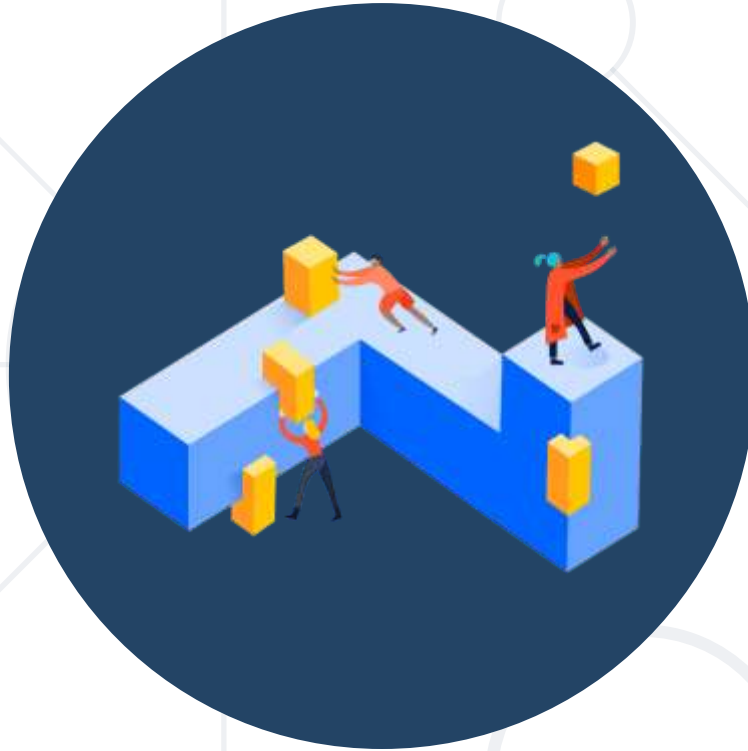
Development Models
Cathedral and Bazaar Models

The Cathedral: The "classic" model

- Closed environment

- Small group of leaders/developers

- Used both in classic development models, such as **waterfall**, **spiral** and in classic **OSS projects**

- Examples: GCC, GNU Emacs

The Bazaar – Introduced by Linus Torvalds

- Open environment, almost **any person** can participate

- Dynamic decision making structure

- There are **no clear leaders**, undefined number of developers

  - However there is a benevolent-dictator figure

- "Release early, Release often"

- Example: Linux

Big Open-Source Projects

VS Code

- **Programming-focused text editor** first released by Microsoft

- Ranked the most popular developer environment tool in the Stack Overflow 2018 Developer Survey

  - with 34.9% of respondents claiming to use it

Node.js

- Node.js is a JavaScript runtime built on Chrome's V8 JavaScript engine
  - It can execute JS code outside of a browser
- Node is designed to build scalable network applications

Vue.js

■ One of the most prominent JavaScript frameworks on the market

■ Ranked up over **90,000 stars** in GitHub

■ Vue.js has been learning from the past mistakes and successes of **React** and **Angular**

Bootstrap

- Bootstrap is a **frontend** component **library** to help you build **responsive**, mobile-first projects using HTML, CSS and JavaScript

- It was launched by Twitter in 2011

Contributing to Open-Source

Why contribute ?

- A lot of people believe code should be open

- Gives you a great start

  - Finding Bugs, Sending pull requests

  - Writing Clean Code

- Be a part of a larger community

- Try it out at: issuehub.io

Live Exercises

Summary

- Open source software is software with source code that **anyone** can inspect, modify, and enhance

- There are two **Development Models**

    - Cathedral

    - Bazaar

- Contributing to Open-Source can be useful

Questions?

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