2024

GitHub Fundamentals

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Objectives

Pull Requests
GitHub Templates
GitHub Releases / Tag
GitHub Wikis
GitHub Pages
GitHub Actions
GitHub Issues
GitHub Advanced Search

CI/CD
Docker
Git
Markdown
Microservices
Free Software
Open Source
GitHub is your CV

VIEW ALL EVENTS

GITHUB COPILOT

Using GitHub Copilot Chat

Published by O'Reilly Media, Inc.

Intermediate

Pair programming with AI for easier software development

Complete this course and earn a badge!

What you'll learn Is this live event for you? Schedule

Course outcomes

- Understand how to use GitHub Copilot Chat to refactor, document, and secure your code base
- Learn how to generate unit test cases, analyze diagrams and algorithms, and perform code reviews

Course description

Recent advancements in large language models, with ChatGPT at the forefront, are revolutionizing how software developers work. GitHub Copilot has been trained on billions of lines of code to turn coding prompts into coding suggestions. Recently, it has been extended with Chat, a generative AI and GPT-4 context-aware conversational assistant in Visual Studio Code.

Join expert Lukasz Dynowski to gain practical skills that will enable you to turn dull development tasks such as unit testing, documentation, bug hunting, documentation searching, or diagram explanations into playful conversation with GitHub Copilot Chat, your new AI pair programmer.

Jan. 22, 2024
7 - 9 p.m. Central European Standard Time
180 Spots Remaining

Sign up!

YOUR INSTRUCTOR

Lukasz Dynowski

Lukasz Dynowski is an independent consultant who in his career was involved in over 150+ projects. Counting over 10 years of experience as a software engineer Lukasz was doing Full-Stack, DevOps, Software Architecture, as well as...

Read more

Earn your badge

Digital badges are verifiable and shareable proof of the skills you've built. Complete 80% or more of this course to earn your badge.

GitHub in Numbers

126M+ Developers

420M+ / 284M+ Repositories

3M+ Organizations

90% Fortune 50

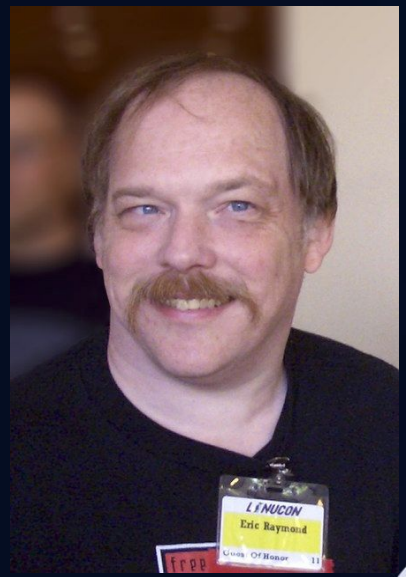
How did we arrived here?

Unix	**1970**	AT&T Bell Labs
GNU	**1983**	GNU Project
GCC	**1987**	GCC + Libs
GPL	**1989**	4 Freedoms
Linux Kernel	**1991**	Linux Kernel
Open Source	**1998**	Netscape
GIT	**2005**	BitKeeper
GitHub	**2008**	Logical Awesome LLC
	2021	

Free Software & Open Source

Richard Stallman

Bruce Perens



Eric Raymond

What does “free software” mean?

User has freedom to:

- **Run** the program as you wish, for any purpose.
- **Study** how the program works and change it, so it does your computing as you wish.
- **Redistribute** copies so you can help others.
- **Distribute** copies of your modified versions to others.

Access to the source code is a precondition for this!

https://www.gnu.org/philosophy/free-sw.en.html

What does “open source” mean?

The software is:

- **Redistributed** for free.
- The source code should be **publicly available.**
- The software can be **modified and distributed** in a different format from the original software.
- The software should **not discriminate against persons or groups.**
- The software should **not restrict the usage of other software.**

https://opensource.org/osd

Free software vs Open source

Free Software

Social movement.

Free software focus on the user's freedom to use the program, to modify it, and to share it.

Open source

Open source is a development methodology.

Open-source focus on the availability of the source code and the ability to modify and share it.

Is Public repository open source?

Public ≠ Open Source

Anyone can view and fork your public project, but your work comes with no permissions.

What if you don’t apply an open source license?

Everybody who contributes to your project also **becomes an exclusive copyright holder of their work.** That means **nobody can use, copy, distribute, or modify their contributions** – and that “nobody” **includes you.**

If you want others to use, distribute, modify, or contribute back to your project, you need to include an open source license.

What is a software license?

An open source license is a legal contract between the author of the software and the user of a software. An open source license states what the user is permitted to do with the software, their obligations, and what they cannot do.

What license to choose from?

- 0-clause BSD License (0BSD)
- 1-clause BSD License (BSD-1-Clause)
- 2-clause BSD License (BSD-2-Clause)
- 3-clause BSD License (BSD-3-Clauhttps://choosealicense.com/se)
- Academic Free License 3.0 (AFL-3.0)
- Adaptive Public License (APL-1.0)
- Apache Software License 1.1 (Apache-1.1) (superseded)
- Apache License 2.0 (Apache-2.0)
- Apple Public Source License (APSL-2.0)
- Artistic license 1.0 (Artistic-1.0) (superseded)
- Artistic License 2.0 (Artistic-2.0)
- Attribution Assurance License (AAL)
- Boost Software License (BSL-1.0)
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  - 2-clause BSD License
  - 1-clause BSD License
  - 0-clause BSD license
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- CERN Open Hardware Licence Version 2 - Strongly Reciprocal
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- Eclipse Public License 1.0 (EPL-1.0) (superseded)

200+

- **Etc.**
- Open Software License 3.0 (OSL-3.0)
- OpenLDAP Public License Version 2.8 (OLDAP-2.8)
- OSET Public License version 2.1
- PHP License 3.0 (PHP-3.0) (superseded)
- PHP License 3.01 (PHP-3.01)
- The PostgreSQL License (PostgreSQL)
- Python License (Python-2.0) (overall Python license)
- CNRI Python license (CNRI-Python) (CNRI portion of Python License)
- Q Public License (QPL-1.0)
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- Reciprocal Public License 1.5 (RPL-1.5)
- ico Sourc Code Public License (RSCPL)
- IL Open Fo License 1.1 (OFL-1.1)
- imp Publ License 2.0 (SimPL-2.0)
- ycat License (Sleepycat)
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- Sun Public License 1.0 (SPL-1.0)
- Sybase Open Watcom Public License 1.0 (Watcom-1.0)
- Universal Permissive License (UPL)
- University of Illinois/NCSA Open Source License (NCSA)
- Upstream Compatibility License v1.0
- Unicode Data Files and Software License
- The Unlicense
- Vovida Software License v. 1.0 (VSL-1.0)
- W3C License (W3C)
- wxWindows Library License (WXwindows)
- X.Net License (Xnet)
- Zero-Clause BSD (0BSD)
- Zope Public License 2.0 (ZPL-2.0)
- zlib/libpng license (Zlib)

What is a software license?

	Public Domain	Permissive	Copyleft	Noncommercial license	Proprietary	Trade secret
Rules	Grants all rights	Grants use rights, including right to **relicense**	Grants use rights, forbids **proprietization**	Grants rights for noncommercial use only.	No rights granted	No information made public
Example	CC*, WTFPL	Apache, MIT, BSD	GPL, AGPL	JRL, AFPL	Copyrights, no public license	
Users	< 1%	Kubernetes, GitLab	Linux Kernel, Gimp			

What license to choose from?

https://choosealicense.com

https://blog.usejournal.com/understanding-open-source-and-free-software-licensing-c0fa600106c9

Change the license of my project?

CHOOSE WISELY !

https://opensource.guide/legal/#what-if-i-want-to-change-the-license-of-my-project