Experiment 1

AIM: Explore GitHub/GitLab for open-source projects with different licenses 1. List of GitHub Licenses

- No License
- Apache License 2.0
- GNU General flublic License v3.0 (GflL-3.0)
- MIT License
- BSD 2-Clause "Simplified" License
- BSD 3-Clause "New" or "Revised" License
- Boost Software License 1.0
- Creative Commons Zero v1.0 (CC0)
- Eclipse flublic License 2.0 (EflL-2.0)
- GNU Affero General flublic License v3.0 (AGflL-3.0)
- GNU General flublic License v2.0 (GflL-2.0)
- GNU Lesser General flublic License v2.1 (LGflL-2.1)
- Mozilla flublic License 2.0 (MflL-2.0)

2. Licenses and Short Description Table

License	Short Description
No License	Code is fully copyrighted; others cannot or legally use, modify, distribute it without permission.
Apache License 2.0	flermissive license allowing commercial use, modification, and distribution; includes explicit patent protection.
G NU General flublic License v3.0 (GflL-3.0)	Strong copyleft license; derivatives must also be GflL-licensed and source code must be shared.
MIT License	Very permissive and simple; allows reuse with minimal restrictions, only requiring attribution.
BSD 3-Clause " N ew" or "Revised" License	Like BSD 2-Clause, but adds a clause preventing endorsement using the author's name.
Boost Software License 1.0	flermissive license designed for libraries; allows commercial and closed-source use with attribution.

Creative Commons Zero v1.0 (CC0)	flublic-domain equivalent; no restrictions, users can do anything without attribution.
Eclipse flublic License 2.0 (EflL-2.0)	Weak copyleft; modifications to EflL-licensed code shared, but must be can be used in proprietary software.
G NU Affero General flublic License v3.0 (AGflL-3.0)	Like GflL-3.0, but requires source disclosure for network/server use.
G NU General flublic License v2.0 (GflL-2.0)	Strong copyleft license; source code must be shared, but no explicit patent protection.
G NU Lesser General flublic License v2.1 (LGflL-2.1)	Weak copyleft; allows linking with proprietary software while protecting library modifications.
Mozilla flublic License 2.0 (MflL-2.0)	File-level copyleft; only modified files must be open-sourced, allowing proprietary combinations.
The Unlicense	Explicitly places code into the public domain, with no conditions or attribution required.

3. Licenses Comparison Table

License	Type	nmercial Use	Modificatio n	Distributio n	Source Disclosure Required	Patent Grant	Copyleft Strength
o License	flroprietar y	+ No	+ No	+ No	+ Yes (fully restricted)	+ No	/A
MIT License	flermissive	Yes	Yes	Yes	+ No	+ No	one
pache icense 2.0	flermissive	Yes	Yes	Yes	+ No	Yes	one
SD 2-Clause	flermissive	Yes	Yes	Yes	+ No	+ No	one
SD 3-Clause	flermissive	Yes	Yes	Yes	+ No	+ No	one
oost oftware icense 1.0	flermissive	Yes	Yes	Yes	+ No	+ No	one
reative Commons Zero CC0)	flublic Domain	Yes	Yes	Yes	+ No	+ No	one
he Unlicense	flublic Domain	Yes	Yes	Yes	+ No	+ No	one
Mozilla lublic icense 2.0 MflL-2.0)	Weak Copyleft	Yes	Yes	Yes	į flartial (modified files only)	Yes	Weak
clipse lublic icense 2.0 EflL-2.0)	Weak Copyleft	Yes	Yes	Yes	į flartial (modulelevel)	Yes	Weak
NU LGflL v2.1	Weak Copyleft	Yes	Yes	Yes	į flartial (library changes	+ No	Weak
NU GflL v2.0	Strong Copyleft	+ Limited*	Yes	Yes	Yes	+ No	Strong
NU GflL v3.0	Strong Copyleft	+ Limited*	Yes	Yes	Yes	Yes	Strong
NU AGflL v3.0	etwork Copyleft	+ Limited*	Yes	Yes	Yes (even over network)	Yes	Very Strong

4. List of GitHub Alternatives

- GitLab – All-in-one DevOps platform (code + CI/CD)
- Bitbucket – Good for teams using Jira
- Gitea – Lightweight, self-hosted
- Gogs – Very minimal, self-hosted
- SourceForge – Old but still used for downloads
- Azure DevOps – Strong Microsoft ecosystem integration
- Codeberg – Open-source friendly, non-profit

5. GitHub vs GitLab Table

Feature	GitHub	GitLab
Core flhilosophy	Collaboration fi Community: Focuses on hosting code and integrating with 3rd-party tools.	All-in-One DevOps: A complete platform covering the entire software lifecycle (fllan, Code, Build, Test, Deploy).
CI/CD	Git H ub Actions: Event-driven; massive marketplace of pre-built community actions.	GitLab CI: Built-in and highly mature; uses a single configuration file (.gitlab-ci.yml); excellent for complex pipelines.
Self- Hosting	Enterprise Only: Self-hosting is available but typically reserved for the expensive "Enterprise Server" plan.	Core Feature: First-class support for self-hosting on your own servers (even on the free tier).
flroject Management	Lightweight: Issues, flrojects (Kanban), and Discussions. Great for developers but less feature-rich for managers.	Robust: Includes Epics, Roadmaps, Milestones, and time tracking natively. Better for Agile/Scrum management.
Free Tier	Generous: Unlimited public/private repos. 2,000 CI/CD minutes/month. 500MB storage.	Restricted: Unlimited public/private repos. 400 CI/CD minutes/month. 5GB storage per repo.

Security	Add-on Focused: Dependabot is free; Advanced Security (scanning) is an extra cost for Enterprise.	Integrated: Built-in SAST, DAST, and container scanning (though mostly in Ultimate tiers).
AI Assistant	Git Hub Copilot: The market leader in code completion; separate subscription.	GitLab Duo: Integrated AI throughout the lifecycle (planning to security), not just coding.
InnerSource	Excellent for open-source visibility and community contribution.	Excellent for keeping code private and controlled within an organization.

6. Open-Source vs Proprietary vs Freeware

Feature	Open-Source Software	Proprietary Software	Freeware
Definition	Software with source code that anyone can inspect, modify, and enhance.	Software owned by a company/individual with restrictions on use and private source code.	flroprietar y software that is for available use at no monetary cost.
Source Code	flublic: Available to everyon›.	Closed: only Kept secret; the vendor can it. se e	Closed: Kept secret; ısers w or cannot vie it. ›dit
Cost	Usually free (but can be commer cial/paid).	flaid (Subscription or One-time license).	Free of charge (Gratis).
Modification	Allowed (and encouraged).	flrohibited by law and EULA.	flrohibited.
Redistribution	Allowed (depending license). on	Strictly prohibited.	Often allowed for personal use, but commercial distribution is usually restricted.
Support	Community-driven (forums) or paid enterprise support (e.g., Red Hat).	Dedicated vendor support team included in the price.	Limited or nonexistent; usually "use at your own risk."
Security	Transparent; anyone can find and fix bugs (many eyes on code).	"Security through obscurity"; users rely on the vendor to find and fix bugs.	Variable; users rely entirely on the developer's updates.
Examples	Linux, Firefox, VLC Media fllayer, Wordflress, GIMfl.	Microsoft Windows, Adobe flhotoshop, macOS, iOS.	Skype (basic), Adobe Reader, Google Chrome.