

1. Coding

- Github: Most popular public code repository. <https://github.com/>
- Gitea: lightweight Selfhosted code repository written in go. <https://gitea.com/>
- Gitlab: code repository centered around devops <https://about.gitlab.com/>

Recommendation: My recommendation would be gitea as it provides developers full control over the repository with features such as branch control without needing to pay for it from services like github.

2. Building

- Github Actions: Provides workflows for CI/CD pipelines. <https://github.com/features/actions>
 - Gitea Actions: Replicates github actions. <https://docs.gitea.com/usage/actions/overview>
 - Docker: Docker helps developers build, share, run, and verify applications anywhere — without tedious environment configuration or management. <https://www.docker.com/>
- Recommendation:** I would recommend github actions as it is the most robust system to deal with building applications. It's compatible with building in most languages and can manage/use other build tools such as docker and kubernetes.

3. Testing

- Gitea Action Agent: Replicates github actions. <https://docs.gitea.com/usage/actions/overview>
 - Jenkins: an open source automation server which enables developers around the world to reliably build, test, and deploy their software <https://www.jenkins.io/>
 - Drone: is a modern Continuous Integration platform that empowers busy teams to automate their build, test and release workflows using a powerful, cloud native pipeline engine. <https://www.drone.io/>
- Recommendation:** For testing I would recommend jenkins as it is free and opensource and provides the most utility of the three.

4. Packaging

- Gitea Package Registry: Package Registry can be used as a public or private registry for common package managers. <https://docs.gitea.com/usage/packages/overview>
- Docker Registry: Container registry for storing, managing, and sharing Docker images. <https://www.docker.com/products/docker-hub/>

- Kubernetes: K8s, is an open source system for automating deployment, scaling, and management of containerized applications. <https://kubernetes.io/> **Recommendation:** For packaging I have two recommendations: for packaging binaries or other builds I would recommend gitea package manager as it supports packaging for many package repositories. For general and reliable builds of a package I would recommend docker registry as it makes it easy to upload and distribute docker images.

5. Releasing

- Coolify: An open-source & self-hostable Heroku / Netlify / Vercel alternative. <https://coolify.io/>
- Docker: Docker helps developers build, share, run, and verify applications anywhere — without tedious environment configuration or management. <https://www.docker.com/>
- Vercel: Vercel is a developer cloud to build and deploy web applications. <https://vercel.com/docs> **Recommendation:** For releasing I would recommend Coolify as it is free and opensource tool that makes it easy to build, release, and host web applications.

6. Configuring

- Coolify: An open-source & self-hostable Heroku / Netlify / Vercel alternative. <https://coolify.io/>
- Kubernetes K8s, is an open source system for automating deployment, scaling, and management of containerized applications. <https://kubernetes.io/>
- Docker compose: Docker Compose is a tool for defining and running multi-container applications. It is the key to unlocking a streamlined and efficient development and deployment experience. <https://docs.docker.com/compose/> **Recommendation:** For configuring I would recommend Docker compose as docker compose is very easy to configure, add, and control services. If you want more utility/robustness I would recommend kubernetes however kubernetes is not easy to learn, configure, and deploy.

7. Monitoring

- Uptime-Kuma: A self-hosted monitoring tool <https://github.com/louislam/uptime-kuma>
- Umami: Umami is a simple, fast, privacy-focused alternative to Google Analytics. <https://github.com/umami-software/umami>

- Google Analytics: For developers who want to tag a website or app, set up events or ecommerce, or build custom Analytics functionality. <https://developers.google.com/analytics> **Recommendation:** For uptime monitoring I would recommend uptime kuma as it is lightweight, easy to use, and has many notification features. For general analytics I would recommend Umami as it is a selfhosted, privacy focused monitoring tool that is GDPR compliant.