

If you are a beginner, we'd recommend you to visit the beginner friendly version.

Visit the Beginner Version

Find the detailed version of this roadmap along with other similar roadmaps

roadmap.sh

Git and GitHub

- git init
- git config
- Local vs Global Config
- Repository Initialization
- Working Directory
- Staging Area
- Committing Changes
- Intro and Git Commands
- .gitignore
- Viewing Commit History

- Fast-Forward vs Non-FF
- Rebase
- Squash
- Handling Conflicts
- Cherry Picking Commits

- Forking vs Cloning
- Issues
- Pull Requests
- Labelling Issues / PRs
- Saved Replies
- Mentions
- Reactions
- Commenting
- GitHub Discussions

- Linear vs Non-Linear
- HEAD
- Detached HEAD
- git log options

- soft
- hard
- mixed
- git reset

- What and Why use?
- Adding / Updating

Submodules

GitHub Workflow

GitHub CLI

- Installation and Setup
- Repository management
- Issue Management
- Pull Requests
- Use in Automation

- GitHub Apps
- OAuth Apps

Creating Apps

- GitHub Copilot
- GitHub Models
- GitHub Marketplace
- GitHub Education

- Student Developer Pack
- GitHub Classroom
- Campus Program

Learn the Basics

What is a Repository

- Cloning Repositories
- Managing Remotes
- Pushing / Pulling Changes
- Fetch without Merge

Git Remotes

Merge Strategies

- PR from a Fork
- Collaborators
- Creating PR

Collaboration on GitHub

Git Stash Basics

Intermediate Git Topics

History

- git revert
- Undoing Changes

- git reset

- commit-msg
- post-checkout
- post-update
- pre-commit
- pre-push
- Common Hooks

Git hooks

- What and Why?
- Client vs Server Hooks

Git Patch

- Git Reflog
- Git Bisect
- Git Worktree
- Git Attributes
- Git LFS

- REST API
- GraphQL API

GitHub API

- GitHub Gists
- GitHub Packages
- GitHub Codespaces
- GitHub Security
- GitHub Sponsors

- GitHub Copilot
- GitHub Models
- GitHub Marketplace
- GitHub Education

- Student Developer Pack
- GitHub Classroom
- Campus Program

Basic Collaboration

GitHub Essentials

- Creating Account
- GitHub Interface
- Setting up Profile
- Creating Repositories

- Commit Messages
- Branch Naming
- PR Guidelines
- Code Reviews

Best Practices

- Contribution Guidelines
- Clean Git History

GitHub Projects

- Project Planning
- Kanban Boards
- Roadmaps
- Automations

Viewing Diffs

- Between Commits
- Between Branches
- Staged Changes
- Unstaged Changes

Rewriting History

- git commit --amend
- git rebase
- git filter-branch
- git push --force

Tagging

- Managing Tags
- Pushing Tags
- Checkout Tags
- GitHub Releases

GitHub Actions

- YAML Syntax
- Workflow Triggers
- Scheduled Workflows
- Workflow Runners
- Workflow Context
- Secrets and Env Vars
- Caching Dependencies
- Storing Artifacts
- Workflow Status
- Marketplace Actions

GitHub Developer Tools

Webhooks

Deploying Static Websites

GitHub Pages

- Custom Domains
- Static Site Generators

More GitHub Features

Continue learning with following roadmaps

Frontend Backend DevOps Full-stack



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