

Git & GitHub MASTERY: The Complete Developer's Guide

Chapter 1: Advanced Git Workflows

- Introduction to Advanced Workflows
 - Feature Branch Workflow
 - Gitflow Workflow
 - Fork and Pull Workflow
 - Example Workflow Implementation
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Chapter 2: Branching Strategies

- Understanding Branching
- Creating and Managing Branches
- Branch Naming Conventions
- Best Practices for Branching

Chapter 3: Merging and Rebase

- Merging vs. Rebasing
- Interactive Rebase
- Squash Commits
- Handling Merge Conflicts

Chapter 4: Advanced Git Commands

- Git Bisect
- Git Blame
- Git Reflog
- Git Stash

Chapter 5: Git Hooks

- Introduction to Git Hooks
- Types of Hooks
- Implementing Pre-commit Hooks
- Post-receive Hooks

Chapter 6: Git Attributes and .gitignore

- Understanding .gitignore
- Advanced .gitignore Patterns
- Git Attributes
- Customizing Merge Behavior

Chapter 7: Working with Remotes

- Adding and Managing Remotes
- Fetching and Pulling
- Pushing to Multiple Remotes
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Chapter 8: Advanced Git Configurations

- Global vs. Local Configurations

- Common Git Config Commands
- Customizing Git with Aliases
- Environment Variables

Chapter 9: Git and GitHub Security

- Using Personal Access Tokens
- SSH Key Management
- Two-Factor Authentication
- Security Best Practices

Chapter 10: Pull Requests and Code Reviews

- Creating Effective Pull Requests
- Reviewing Pull Requests
- Automating Code Reviews
- Best Practices for Code Reviews

Chapter 11: Git and GitHub for Collaboration

- Collaborating on GitHub
- Forking Repositories
- Contributing to Open Source
- Managing Collaborators

Chapter 12: Troubleshooting Git Issues

- Common Git Errors and Solutions
- Resolving Merge Conflicts
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- Debugging Git Issues

Chapter 13: Advanced Git and GitHub Features

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Chapter 14: Git and GitHub for CI/CD

- Introduction to CI/CD
- Setting Up CI/CD Pipelines
- Automating Deployments
- Best Practices for CI/CD

Chapter 15: Identifying and Fixing Bugs

- Using Git Bisect to Find Bugs
- Understanding Git Blame
- Debugging with Git
- Best Practices for Bug Identification and Fixing

This guide will provide a comprehensive overview of advanced Git and GitHub concepts, ensuring that users can effectively implement, troubleshoot, and identify bugs in their workflows.