EXPLORE AI ACADEMY

Encase of FIre→ Git Commit → GIt Push→ Exit Building - Workshop 8

Version Control

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EXPLORE AI ACADEMY

01. Introduction to version control

02. Why use Git

03. How to use Git

04. Best Practices

05. Conclusion

Version Control

> It aids teamwork, tracks modifications, and ensures a history of edits. This structured system promotes collaboration, error recovery, and concurrent work on features or fixes.

- Lack of History
- Collaboration Issues
- Error Recovery
- Lack of Experimentation
- Code Duplication

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Why use GIT

- Distributed Nature
- Efficient Branching and Merging
- Commit History
- Collaboration
- Error Recovery

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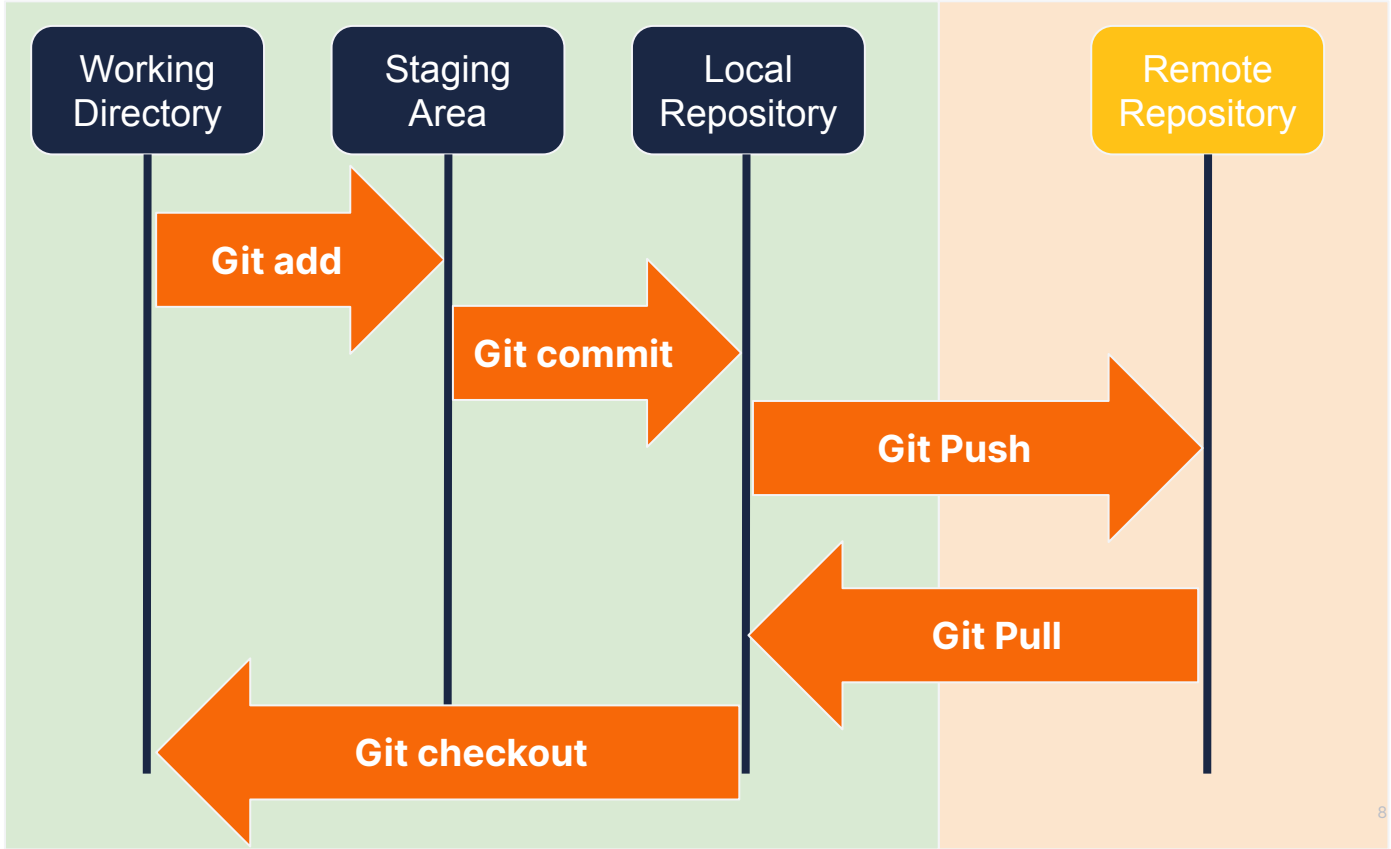
Git commands

Command	Explanation
Git Pull	Fetches the changes from the remote repository and merges them into your current branch locally.
Git Add	Stage changes for the next commit. It tells Git which files or changes you want to include in the next commit.
Git Commit -m “comment”	Saves the staged changes into the Git repository. e.g *git commit -m "Fixed a bug on landing page"*
Git Push	Upload your local commits to a remote repository. This enables other user to access your work and changes
Git Checkout	Switch between branches e.g *git checkout branchname* Create a new branch and switch to it: git checkout -b newbranchname. Discard changes in your working directory: git checkout -- filename

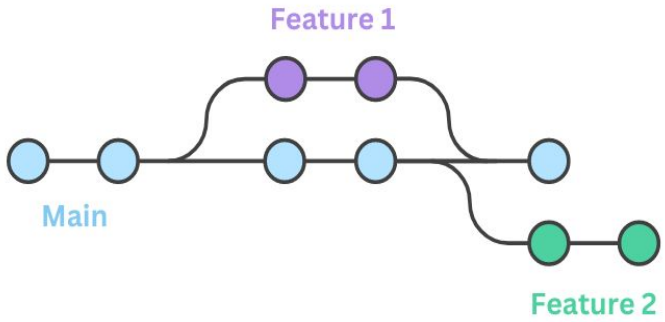
Git Concepts

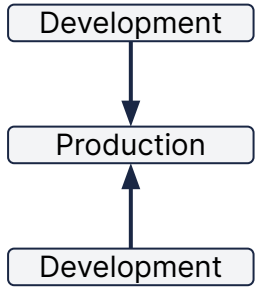
- Repository
- Commit
- Branch
- Merge
- Pull Request



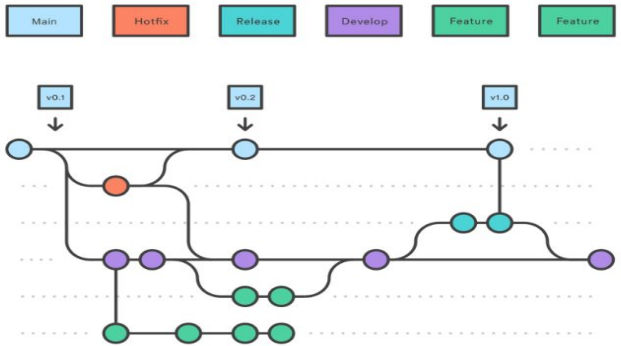
Branching Strategy

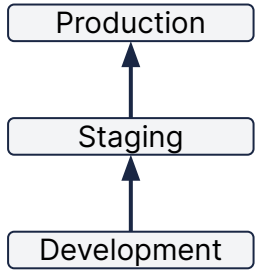
Feature





Workflow





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Best Practices

- Frequent Commits
- Meaningful Commit Messages
- Branching Strategy
- Code Review: Utilize pull requests for code review
- Ignore Unnecessary Files: Use .gitignore
- Avoid Force Push
- Use Issue Tracking
- Backup and Recovery
- Documentation of environment and process
- Continuous Learning: Stay updated with Git's features


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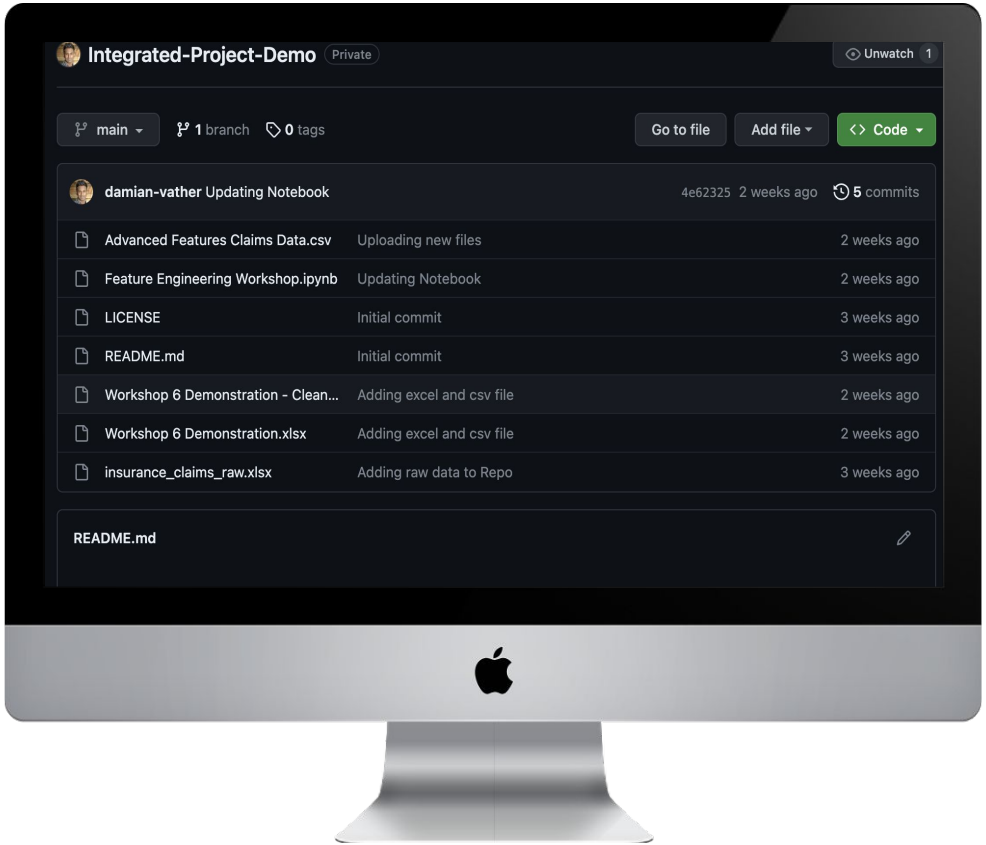
Example Repository



Contains all data I have created or used

Contains notebook used for project

Contains a README.md file explaining my repo

Conclusion

> The main objective of Git is to ensure the safety and control of your work

Practice → **Consistency** → **Discipline**