**Git CheatSheet**

1. **Basic workflow**

# Initialize a repo

*git init*

# Clone a repo

*git clone* [*https://github*](https://github)*.com/user/repo.git*

# Check status

*git status*

1. **Branching**

# Create a branch

*git branch feature-x*

# Switch branches

*git checkout feature-x*

# OR (shortcut)

*git checkout -b feature-x*

1. **Staging & Commits**

# Stage all changes

*git add*

# Commit with message

*git commit -m "Fixed login bug"*

# Amend last commit

*git commit –amend*

1. **Remote Repos**

# Push to remote

*git push origin main*

# Pull latest changes

*git pull origin main*

# Set upstream branch

*git push --set-upstream origin feature-x*

1. **Undo**

# Discard local changes

*git checkout – file.txt*

# Reset to last commit (hard)

*git reset –hard HEAD*

# Revert a commit

*git revert <commit-hash>*

1. **Stashing**

# Stash with message

*git stash push -m "WIP: auth feature"*

# List stashes

*git stash list*

# Apply stash without dropping

*git stash apply stash@{1}*

# Create branch from stash

*git stash branch new-branch stash@{0}*

1. **Logging**

# Show changes between branches

*git log --left-right --graph main...feature-x*

# Find commits by message

*git log --grep="fix login"*

# Show changes in a file

*git log -p filename.txt*

1. **Find Broken Commit**

# Find which commit broke a line

*git blame filename.txt*

# Binary search for bugs

*git bisect start*

*git bisect bad*

*git bisect good v1.0*

*git bisect reset*

# Recover deleted branch

*git reflog*

*git checkout -b recovered-branch HEAD@{5}*

1. **Advanced Branching**

# List all branches (including remote)

*git branch -a*

# Delete merged branches

*git branch --merged | grep -v "main" | xargs git branch -d*

# Rename branch (local and remote)

*git branch -m old-name new-name*

*git push origin :old-name new-name*

*git push origin -u new-name*