Phase A

Step 1: Install Git

- git-scm.com
- CMD: git -- version
- (optional) Configure Git identity:
git config --global user.name "Your Name"
git config --global user.emaile "your.email@example.com"

Step 2: Create a Github Account and Repository

Install Visual Studio Code

- in VS Code terminal:
git --version

Phase B

Clone a Repository onto Your Local Machine

- VS Code, open Command Palette (Ctrl+Shift+P)
- Select "Git: Clone"
- Paste repo URL (GitHub: Click "Code > Copy the HTTPS URL)
- Choose local folder and save it
- *can see the files in the Explorer sidebar

OR, in terminal (in VS Code or separately):
git clone https://github.com/yourusername/my-first-repo.git
- VS Code: File > Open Folder

Make changes, Commit and Push to Github

- Make changes
- Stage changes: Source Control sidebar (git icon on the left), click "+" next to files to stage them
- Commit: Enter message like "Updated README", then click the checkmark icon (or press Ctrl+Enter)

- Push: click sync icon (arows) in Source Control view, or Command Palette > "Git: Push"

OR, in terminal (in VS Code or separately):
git add . # Stages all changes
git commit -m "Your commit message"
git push origin main # "main" is the default branch; use "master" if your is older

Pull changes from Github

- VS Code Source Control view, click sync icon (or down arrow for pull specifically)
- VS Code will highlight conflicts if present

OR, in terminal (in VS Code or separately):
git pull origin main

Phase C

Working w/ branches

- Terms: Main branch, feature branch, merging
- Common workflow: Create branch > Work > Commit > Push branch > Create pull request on GitHub > Merge

Steps in VS Code:
1. Create a branch: Source Control view, click the branch name at the bottom-left status bar, then "Create Branch...".
2. Switch branches: Click the branch name in the status bar +select one. Work on the branch: Make changes, stage, commit as usual.
3. Push the branch: Use "Git: Push" (it will push to a remote branch with the same name).
4. Merge back to main: Switch to main branch. Command Palette > "Git: Merge Branch..." > Select your feature branch. Resolve any conflicts if prompted.
5. (Optional) Delete branch: After merging, right-click in Source Control > Branches > Delete.

OR, in terminal (in VS Code or separately):
git checkout -b feature-new-page # Create and switch to new branch
Make changes, then:
git add .
git commit -m "Added new feature"
git push origin feature-new-page
To merge:
git checkout main
git merge feature-new-page
git push origin main
git branch -d feature-new-page # Delete local branch

On GitHub, for collaboration, use Pull Requests: After pushing a branch, go to your repo on GitHub > "Pull requests" > "New pull request" > Select branches > Create > Review and merge.

Common commands

- git status: See what's changed.
- git log: View commit history.
- git branch: List branches.
Undoing mistakes:
- git checkout -- file.txt: revert a file
- git reset --hard: undo commits (destructive)