Git - Documentation

Introduction to Git

Git is a distributed version control system used to track changes in source code during software development.

It allows multiple developers to work on the same project simultaneously without interfering with each other.

Why Use Git?

- Tracks changes in code

- Enables collaboration among developers

- Allows branching and merging for feature development

- Maintains a history of every change

Installing Git on Windows

1. Visit https://git-scm.com/download/win

2. Download the installer and run it.

3. Follow the setup instructions (recommended options are usually fine).

4. After installation, open 'Git Bash' to start using Git CLI.

Basic Git Commands

1. git init - Initialize a new Git repository

2. git clone <url> - Clone an existing repository

3. git status - Check the status of files

4. git add <file> - Stage file(s) for commit

5. git commit -m 'message' - Commit staged changes

6. git push - Push changes to remote repository

7. git pull - Fetch and merge changes from remote

Using Git in Projects

1. Start by initializing Git in your project folder using 'git init'.

2. Track files with 'git add' and commit using 'git commit'.

3. Connect to remote repository (e.g., GitHub) using 'git remote add origin <URL>'.

4. Push your code using 'git push -u origin main'.

Git Branching

1. git branch <branch-name> - Create a new branch

2. git checkout <branch-name> - Switch to that branch

3. git merge <branch-name> - Merge branch into current branch4. git branch -d <branch-name> - Delete branch