Use appropriate Git Commands to Execute the following case studies in VS Code

Case Study 1: New Project Version Control Setup

Scenario: You are assigned to develop a Library Management System. Before coding, your team decides to enable version control.

Tasks:
- Create a project folder and open it in VS Code
- Initialize a Git repository
- Create a Python file and track it using Git
- Commit the initial version

Case Study 2: Tracking Daily Code Changes

Scenario: You are working on a Student Registration Module. You make small updates daily and need to record them.

Tasks:
- Modify an existing file
- Check file differences
- Stage and commit changes
- View commit history

Case Study 3: Feature Development Using Branches

Scenario: A new Login feature must be developed without disturbing main code.

Tasks:
- Create a new branch
- Add login-related code
- Commit changes
- Switch between branches

Case Study 4: Merging Feature into Main Code

Scenario: The login feature is tested and approved.

Tasks:
- Switch to main branch
- Merge feature branch
- Verify merged content

Case Study 5: Working with Remote Repository

Scenario: The project must be shared using GitHub.

Tasks:
- Create remote repository
- Add remote origin
- Push code to GitHub

Case Study 6: Undoing Mistakes

Scenario: A file is modified incorrectly.

Tasks:
- View file changes
- Discard uncommitted changes

Case Study 7: Handling Merge Conflicts

Scenario: Two developers edited the same file.

Tasks:
- Merge branches
- Resolve conflicts
- Commit resolved changes

Case Study 8: Ignoring Unwanted Files

Scenario: Log and temporary files should not be tracked.

Tasks:
- Create .gitignore file
- Add ignore patterns

Case Study 9: Collaborating with Team

Scenario: A teammate pushed new changes.

Tasks:
- Fetch latest changes
- Pull updates
- Resolve conflicts if any

Case Study 10: Final Project Release

Scenario:

Project is ready for final submission.

Tasks:
- Review commit history
- Push final code
- Prepare release version