**Task 1**: Initialize a Git Repository "Scenario: You just created a new project folder called PortfolioWebsite. You want to start tracking it with Git

# **Commands:**

\$ cd PortfolioWebsite

\$ git init

**Task 2:** Create a New Branch for Feature Development "Scenario: You're adding a "Contact Us" form to your site. Instead of working on main, you want to isolate changes.

### **Commands:**

\$ git checkout -b contact-form

**Task 3:** Commit Code with Message "You created the HTML form and want to save it with a descriptive message

### **Commands:**

\$ git status

\$ git add.

\$ git add index.html

\$ git commit -m "Add Contact Us form to index.html"

**Task 4:** Pull Before Push to Avoid Conflicts "You and your teammate are working on the same branch. Before pushing, you want to ensure you have the latest code.

# Commands:

\$ git checkout contact-form

\$ git pull origin contact-form

\$ git push origin contact-form

**Task 5:** Resolve Merge Conflicts and Push "Scenario: After pulling, you hit a conflict in style.css that you and your teammate edited. You fix it manually.

#### Commands:

\$ git add Style.css

\$ git commit -m "Resolve merge conflict in style.css"

\$ git push origin contact-form

Everything up-to-date

**Task 6:** Initializing and Committing a Project Scenario-Based Question: You've just created a project directory and a couple of files. What Git commands would you use to start tracking the project and save your initial version?

### Commands:

\$ cd newproject

\$ git init

\$ git checkout -b main-form

Switched to a new branch 'main-form'

\$ git add.

\$ git commit -m "Initial commit"

**Task 7:** Connecting Local Repository to GitHub Scenario-Based Question: You've completed your local project setup and want to upload it to a new GitHub repository. Which Git commands will you use to connect the remote and push the changes?

### Commands:

\$ git remote add origin https://github.com/MukartihalHarsha/Material.git

\$ git push -b origin main

**Task 8:** Creating and Switching to a New Feature Branch Scenario-Based Question: Your team lead has asked you to develop a new login feature without disturbing the main code. What Git commands should you use to create and switch to a new branch?

# **Commands:**

\$ git status

\$ git checkout -b login-feature

**Task 9:** Temporarily Saving Work in Progress Scenario-Based Question: You were working on a new feature but suddenly need to switch branches to fix a bug. How do you temporarily save your work without committing?

# **Commands:**

\$ git stash

\$ git checkout bugfix-branch

\$ git checkout your-feature-branch

\$ git stash pop

**Task 10:** Merging Feature Branch into Main Branch Scenario-Based Question: You completed a feature in a separate branch and now need to combine it with the main branch after verifying the changes. Which Git commands will help you inspect and perform this merge

#### Commands:

\$ git checkout main

\$ git pull origin main

\$ git merge login-feature

\$ git push origin main