

# **GIT LAB 1**

## **1. Basic Initialization**

### **Scenario:**

**You are starting a new project called CalculatorApp. Initialize a new Git repository in the project directory and set up a .gitignore file to ignore any temporary files ending with .tmp.**

### **Questions:**

**What command will you use to initialize a Git repository?**

**How will you create a .gitignore file to exclude .tmp files?**

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## **2. Tracking Changes**

### **Scenario:**

**You created two files: index.html and style.css. Make Git track these files and commit them with the message "Initial commit with HTML and CSS files."**

### **Questions:**

**What commands will you use to add the files to the staging area?**

**How will you commit the changes?**

**How will you retrieve the stashed changes later?**

### 3. Branching

#### Scenario:

You need to add a new feature to your project but don't want to disrupt the main branch.  
Create a branch named feature-login.

#### Questions:

How will you create a new branch?

How will you switch to the newly created branch?

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### 4. Merging

#### Scenario:

After completing the feature-login branch, merge it back into the main branch.

#### Questions:

What command will you use to merge the feature-login branch into the main branch?

What will you do if there are merge conflicts?

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### 5. Undoing Changes

#### Scenario:

You accidentally added a file called debug.log to the staging area, but you don't want to include it in the commit.

#### Questions:

How will you remove the file from the staging area without deleting it from your working directory?

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### 6. Viewing History

#### Scenario:

You want to see the commit history of the project to review past changes.

#### Questions:

What command will you use to view the commit history?

How can you display detailed information about a specific commit?

## **7. Reverting a Commit**

### **Scenario:**

A recent commit introduced a bug, and you want to revert it without removing the commit from history.

### **Questions:**

How will you identify the commit to revert?

What command will you use to create a new commit that undoes the changes?

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## **8. Stashing**

### **Scenario:**

You made some changes to script.js but need to switch branches without committing your changes. Use Git's stashing feature to save your work temporarily.

### **Questions:**

What command will you use to stash your changes?