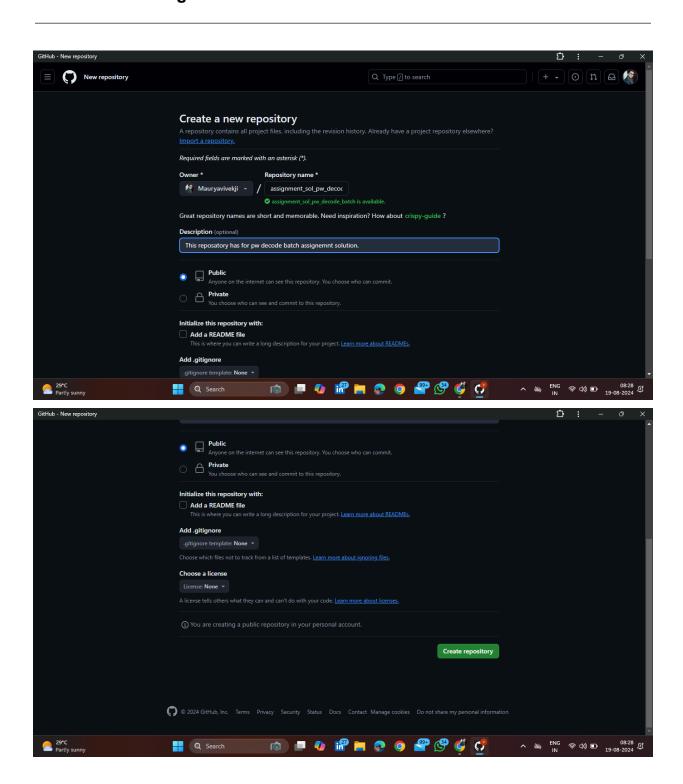
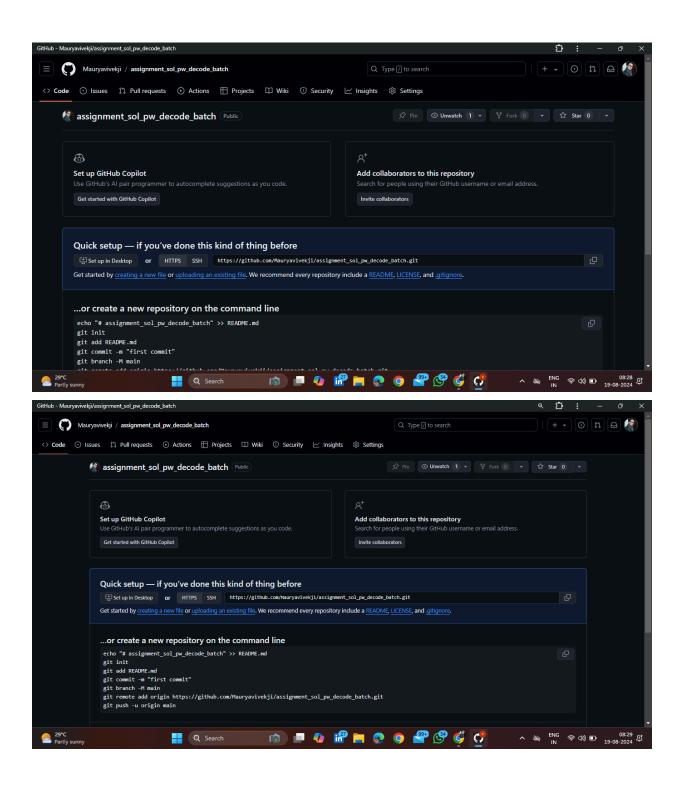
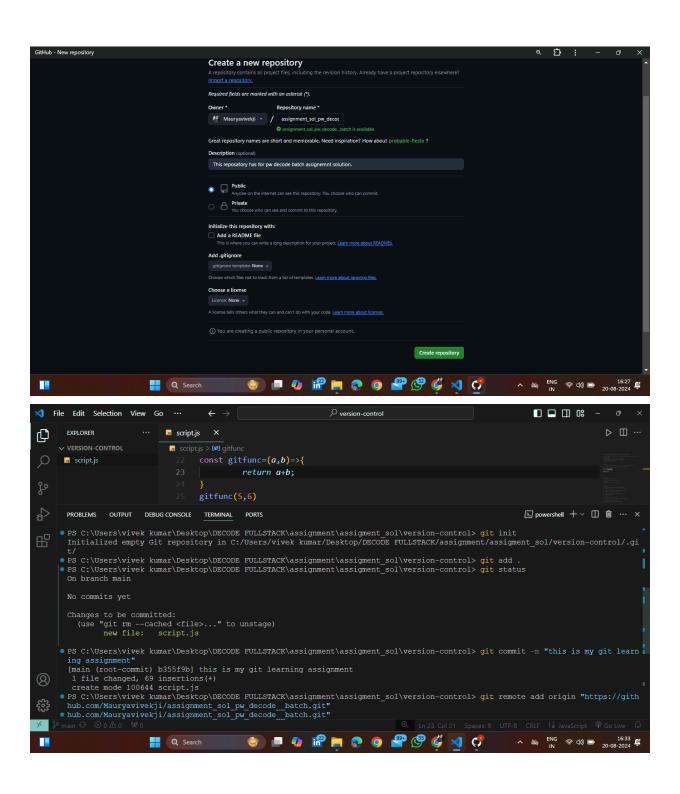
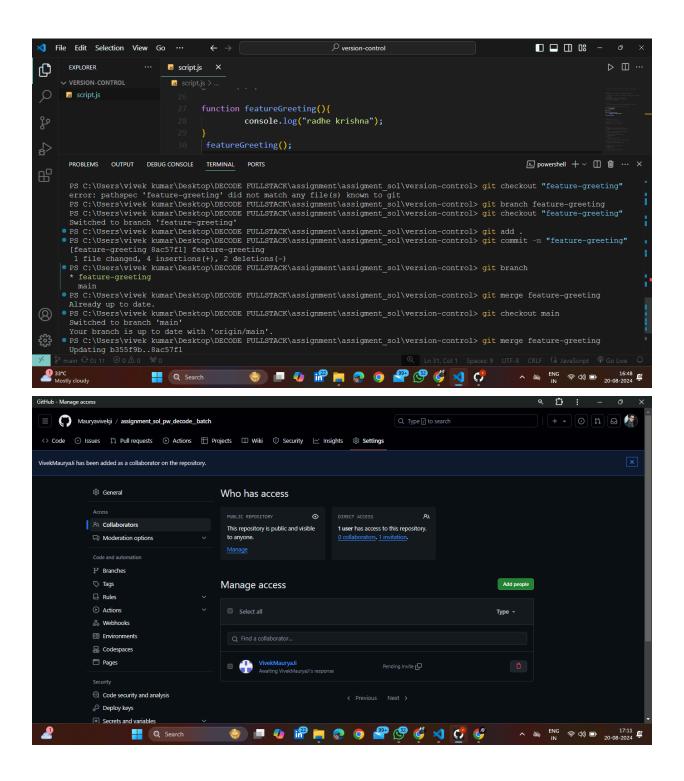
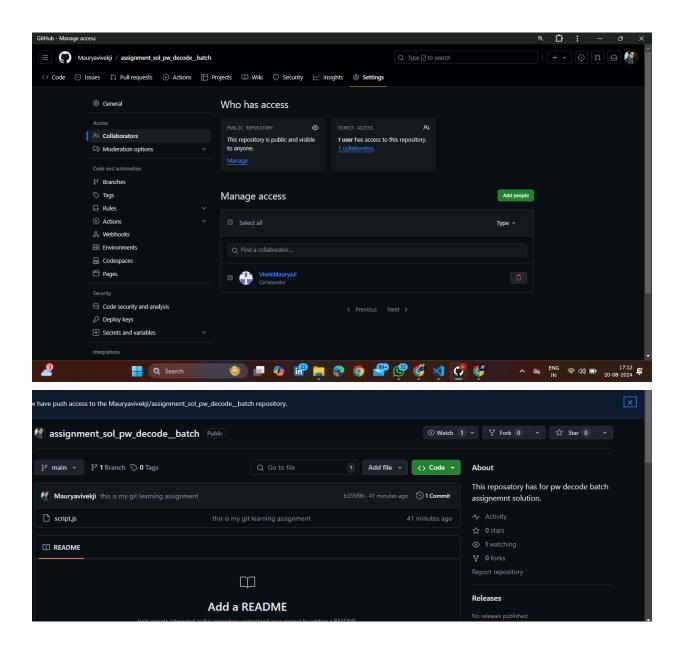
## Git & GitHub Assignment











### Task 1: Initialize a Git repository

- 1. Open your terminal or command prompt.
- 2. Navigate to your project directory.

Run the following command to initialize a Git repository: bash

```
git init
   3.
Task 2: Create a file named script.js
   1. In your project directory, create a new file named script.js.
Add a simple JavaScript function to the file. For example:
javascript
function greet() {
    console.log("Hello, World!");
}
   2.
Task 3: Add and commit the changes
Stage the new file:
bash
git add script.js
   1.
Commit the changes with a message:
bash
git commit -m "Add script.js with a greeting function"
   2.
Creating a New Feature Branch
Task 1: Create a new branch named feature-greeting
In your terminal, run:
bash
git branch feature-greeting
   1.
```

#### Task 2: Switch to the new branch

```
Switch to the feature-greeting branch:
bash
git checkout feature-greeting
   1.
Task 3: Add a new function in script. js for a personalized greeting
Edit script.js to add the following function:
javascript
function personalizedGreet(name) {
    console.log(`Hello, ${name}!`);
}
   1.
Task 4: Commit the changes in the feature branch
Stage and commit your changes:
bash
git add script.js
git commit -m "Add personalizedGreet function"
   1.
Task 5: Merge feature-greeting into the main branch
Switch back to the main branch:
bash
е
git checkout main
   1.
Merge the feature-greeting branch:
bash
git merge feature-greeting
   2.
```

Task 6: Switch back to the main branch

Ensure you are on the main branch: bash

```
git checkout main
```

1.

## **Working with GitHub**

### Task 1: Create a GitHub repository

- 1. On GitHub, create a new repository.
- 2. Follow the instructions provided by GitHub to link your local repository.

## Task 2: Push your local repository to the GitHub repository

Add the GitHub remote repository: bash

```
git remote add origin <your-github-repo-url>
```

1.

Push your changes to GitHub: bash

```
git push -u origin main
```

2.

#### Task 3: Invite a team member to collaborate

- 1. On GitHub, go to the repository settings.
- 2. Invite your team member by adding them as a collaborator.

#### Task 4: Team member clones the repository and makes a change

Your team member should clone the repository: bash

```
git clone <your-github-repo-url>
```

1.

2. They can then make a change, e.g., editing script.js.

#### Task 5: Fetch and merge the changes made by your team member

```
Fetch the changes from the remote repository:
bash
git fetch origin
   1.
Merge the changes:
bash
git merge origin/main
   2.
Handling Branches and Merge Conflicts
Task 1: Create a new branch named feature-update
Create the branch:
bash
git branch feature-update
   1.
Task 2: Switch to the new branch and make changes to script.js
Switch to the branch:
bash
git checkout feature-update
   1.
   Make some changes in script.js.
Task 3: Commit the changes in the feature branch
Stage and commit your changes:
bash
git add script.js
git commit -m "Update script.js in feature-update branch"
   1.
```

Task 4: Switch back to the main branch and make different changes to script.js

Switch to the main branch:
bash

git checkout main

1.
2. Make different changes in script.js.

#### Task 5: Commit the changes in the main branch

Stage and commit your changes: bash

git add script.js
git commit -m "Update script.js in main branch"
1.

#### Task 6: Attempt to merge feature-update into the main branch

Attempt the merge:

bash

```
git merge feature-update
```

- 1.
- 2. If a conflict occurs, Git will indicate which files have conflicts.

#### Task 7: Resolve any merge conflicts

- 1. Open the files with conflicts.
- 2. Edit the files to resolve the conflicts, then save them.

Stage and commit the resolved changes: bash

```
git add script.js
git commit -m "Resolve merge conflict between main and feature-update"
3.
```

# **Managing Obsolete Files**

#### Task 1: Create a new file named obsolete. js

Create obsolete. js in your project directory.

# Task 2: Add and commit the file to the repository

```
Stage and commit the file: bash
```

```
git add obsolete.js
git commit -m "Add obsolete.js"
1.
```

# Task 3: Realize that obsolete. js is unnecessary and should be removed

Remove the file:

bash

```
git rm obsolete.js
1.
```

## Task 4: Undo the last commit where obsolete. js was added

1. Reset the last commit: bash

```
git reset --hard HEAD~1
```