Tutorial Activity-IB: Creating and Pushing Code to GitHub with .gitignore

Duration: 45 minutes

This is graded (2%) in-person activity and students must show the output to the TA during tutorial hours.

Learning Objectives

- Create a new GitHub repository.
- Write and save a basic HTML file in Visual Studio Code.
- Initialize a Git repository locally and connect it to GitHub.
- Push local code changes to a remote GitHub repository.
- Create and apply a .gitignore file to exclude unnecessary files, for this tutorial, this could be any sample file.

Materials & Software Required

- Computer with Visual Studio Code installed
- Internet connection
- Git installed on the machine (check with git --version)
- Active GitHub account (students must log in beforehand)

Safety Notes

Do not upload sensitive or personal files to public repositories. Ignore them through .gitignore.

Background / Theory

Git is a version control system that tracks changes in code. GitHub is a platform for hosting and sharing Git repositories. The .gitignore file tells Git which files/folders should not be tracked (e.g., system files, temporary build files).

Procedure

1. Part 1: Create a GitHub Repository

   - Log in to GitHub.
   - Click the New repository button.
   - Name it: Tutorial-Activity-II.
   - Leave it public and do NOT initialize with README.
   - Click Create repository.

2. Part 2: Create HTML File in VS Code

   - Open Visual Studio Code.
   - Create a new folder: Tutorial-Activity-II (same as GitHub repo).

- Inside VS Code, create a new file named index.html.
- Add the following code:

```
<!DOCTYPE html>
<html>
<head>
  <title>My First Website</title>
</head>
<body>
  <h1>Hello, GitHub!</h1>
  <p>This is my first website pushed to GitHub.</p>
</body>
</html>
```

3. Part 3: Initialize Git and Connect to GitHub

- Open VS Code Terminal (Ctrl + ~).
- Run:
- git init
- git add .
- git commit -m "Initial commit"
- git branch -M main
- git remote add origin https://github.com/<your-username>/Tutorial-Activity-II.git
- git push -u origin main

4. Part 4: Use .gitignore

- In the project folder, create a file named .gitignore.
- Add:
- node_modules/
- *.log
- Save the file.
- **Make a new commit**:
- git add .gitignore
- git commit -m "Add gitignore file"
- git push

5. Part 5: Verify on GitHub

- Refresh your GitHub repository page.
- Confirm index.html and .gitignore are visible.
- Confirm excluded files are not pushed.

Assessment / Deliverables

Pass if student:

- Creates repo
- Pushes HTML code
- Implements .gitignore correctly

Show output to the TA before leaving the class.