

# GitHub and Test It

## Prerequisites

- Git: Ensure Git is installed on your machine.
- GitHub Account: Create a repository on GitHub for your project.
- VS Code: Use VS Code as your integrated development project

## Open Your Project in VS Code

- Launch VS Code.
- Open your project folder by going to File Open Folder.

## Initialize Git

- Open the Terminal in VS Code
- Initialize a Git repository: (git init)
- Add all your project files to the staging area: (git add .)
- Commit your changes with a descriptive message  
(git commit -m "Initial commit")

## Connect Your Local Repository to GitHub

- Go to your GitHub account and create a new repository
- In the terminal, link your local repository to the GitHub repository  
(git remote add origin https://github.com/username/repository-name.git)
- **If you ever need to update the remote URL:**  
(EX:git remote set-url origin https://github.com/username/repository-name.git)

## Push Your Code to GitHub

- Push your local changes to the main branch on GitHub  
(git push origin main)

## Verify Your Code on GitHub

- Open your GitHub repository in a web browser.
- Confirm that your project files have been successfully uploaded.

## How to Test Code in GitHub

- Set Up Jest for Node.js Projects
- Install Jest: (npm install --save-dev jest)
- Add a Test Script in package.json:

```
"scripts": {  
  "test": "jest"  
}
```
- Write Your Test Cases:
- Create a tests folder and add test files ( example.test.js).
- Run Tests Locally:  
(npm test)
- Ensure all tests pass before pushing to GitHub.

## Set Up GitHub Actions for Automated Testing

### Create a Workflow File:

- In your project, create a .github/workflows folder.
- Add a file named ci.yml with the following content:
- Commit and Push the Workflow File

### Monitor the Tests on GitHub

- Go to the Actions tab in your GitHub repository.
- Check the status of your workflow runs to ensure all tests pass.

