# INTRODUCTION TO THE TERMINAL, GITHUB, AND VSCODE

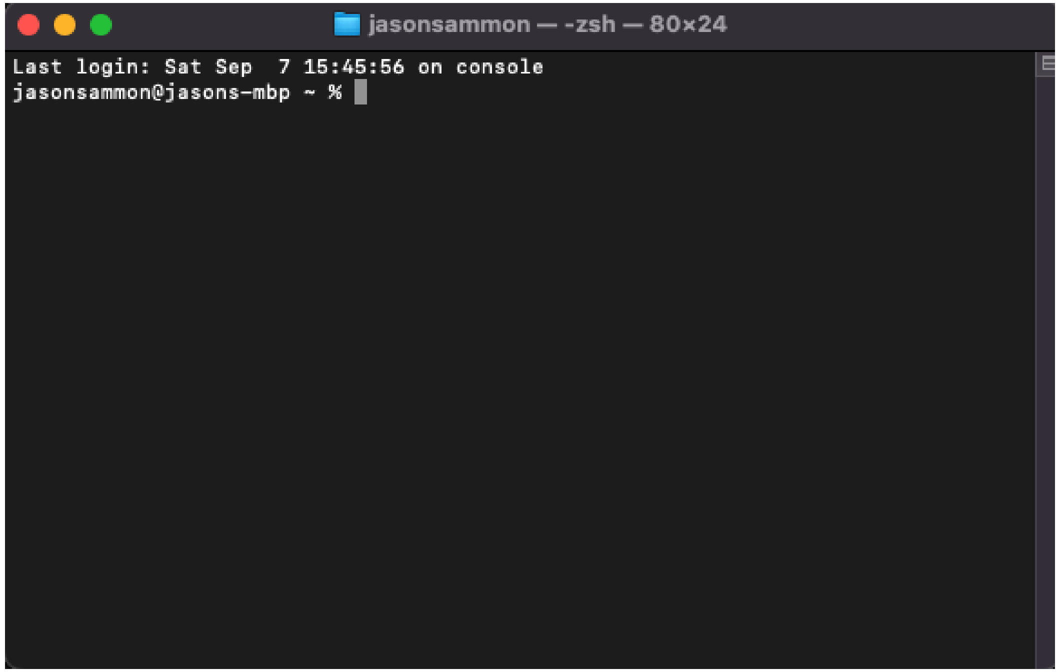
FULL STACK SKILLS BOOTCAMP

# INTRODUCTION TO THE TERMINAL, GITHUB, AND VSCODE

- **Lesson Overview:**
- This lesson will introduce us to the terminal, basic terminal commands, GitHub, and how to use GitHub with VSCode.
- By the end of the lesson, we will understand how to navigate the file system via the terminal, use GitHub to manage repositories, and integrate GitHub with VSCode for an efficient development workflow.

# WHAT IS THE TERMINAL?

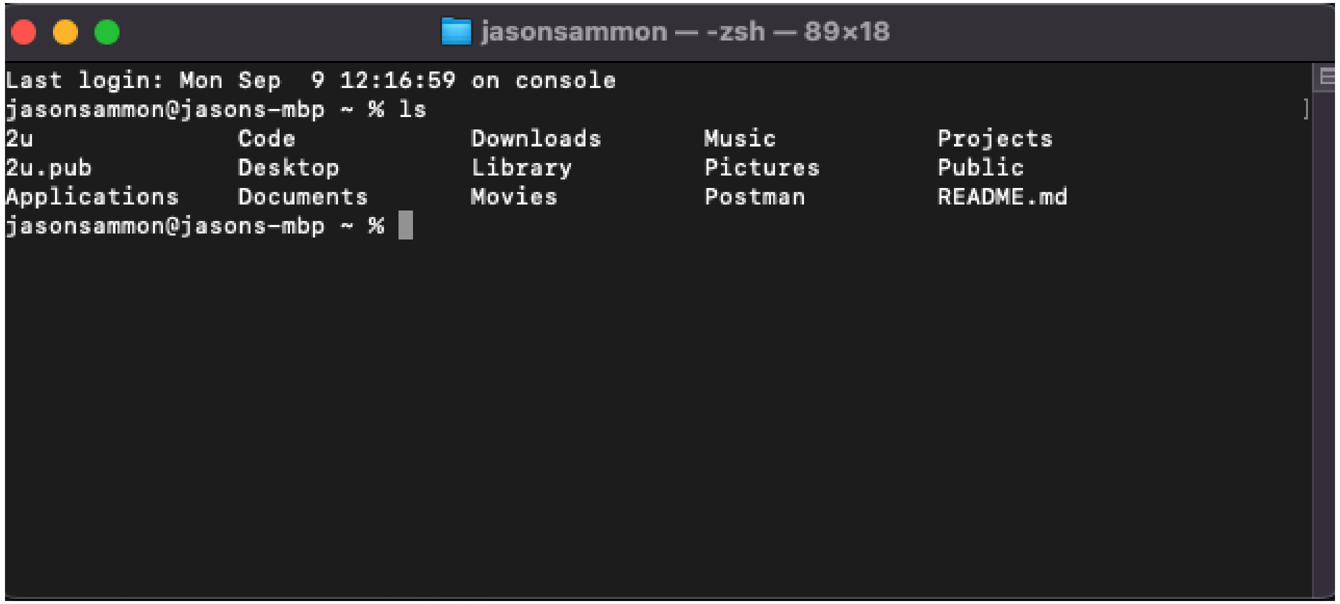
- Definition: The terminal is a text-based interface used to interact with the computer’s file system and run commands.
- Uses: Navigate directories, create/delete files, run scripts, and control your environment.
- Key Point: Understanding the terminal is fundamental to working with version control systems like Git and programming in general.



```
Last login: Sat Sep  7 15:45:56 on console
jasonsammon@jasons-mbp ~ %
```

# BASIC TERMINAL COMMANDS

- **ls** – Lists files and directories in the current directory.
  Example: ls
- **mkdir** – Creates a new directory
  Example: mkdir project-folder
- **touch** – Creates a new, empty file.
  Example: touch index. Html
- **cd** – Changes the current directory.
  Example: cd project-folder



```
Last login: Mon Sep  9 12:16:59 on console
jasonsammon@jasons-mbp ~ % ls
2u              Code            Downloads       Music           Projects
2u.pub          Desktop         Library         Pictures        Public
Applications    Documents       Movies          Postman         README.md
jasonsammon@jasons-mbp ~ %
```

# DEMO OF BASIC COMMANDS

- Live demo of using ls, mkdir, touch, and cd commands.
- Example workflow:

1. List files in a folder: ls
2. Create a folder: mkdir demo
3. Navigate into the folder: cd demo
4. Create a file: touch hello.txt
5. Verify the file was created: ls

demo....

# INTRODUCTION TO GITHUB AND VERSION CONTROL

- **Learning Objective:**

  You will understand what GitHub is, why it is useful, and how to create, clone, commit, and push changes to a repository.

# WHAT IS GITHUB?

- Definition: GitHub is a cloud-based platform for version control using Git.
- Uses: Collaborating on projects, tracking changes to code, and backing up projects online.
- Key Point: GitHub enables teams to work on code together while keeping track of every change.

# GIT WORKFLOW OVERVIEW

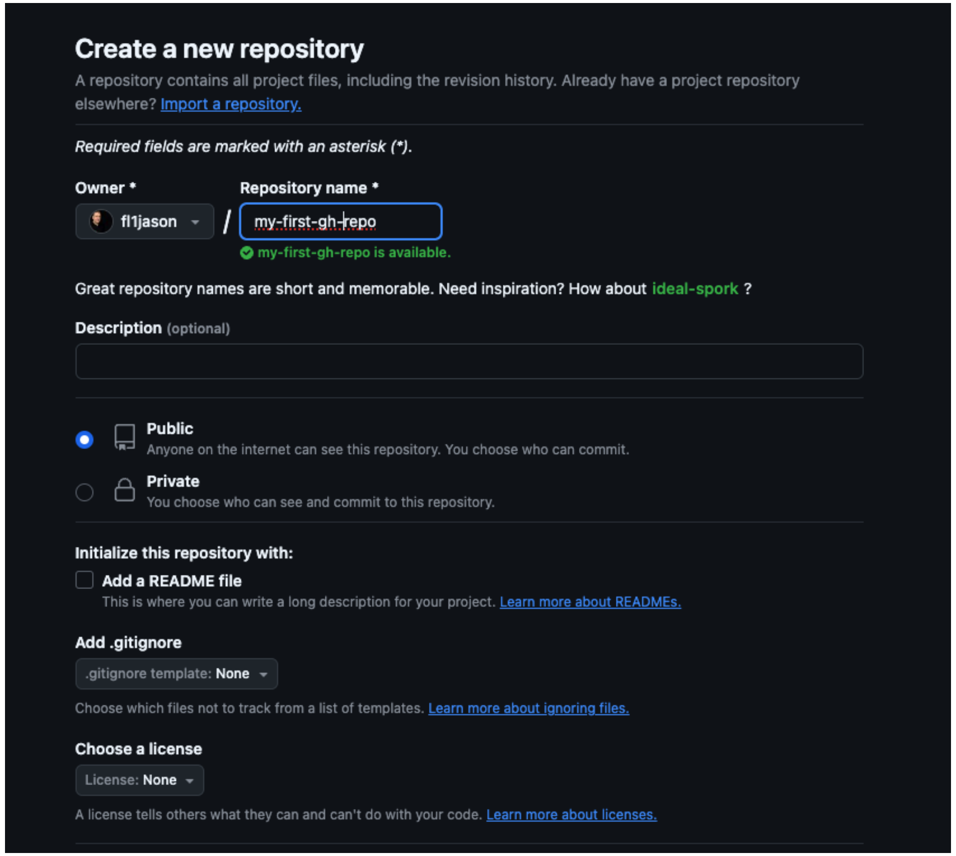
- **Git**: The version control system used to track changes.
- **Repository (repo)**: A storage space where the project files live.
- **Local vs Remote Repo**:
  - Local repo is on your machine.
  - Remote repo is on GitHub.

GitHub

# CREATING A REPOSITORY ON GITHUB

Steps to create a new repository:

1. Go to GitHub and log in.
2. Click the "New" button to create a new repo.
3. Name the repository and choose its visibility (public/private).
4. Click "Create Repository".



## Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? Import a repository.

*Required fields are marked with an asterisk (*).*

Owner * fl1jason / Repository name * my-first-gh-repo

✓ my-first-gh-repo is available.

Great repository names are short and memorable. Need inspiration? How about ideal-spork ?

Description (optional)

● Public
Anyone on the internet can see this repository. You choose who can commit.

○ Private
You choose who can see and commit to this repository.

Initialize this repository with:

□ Add a README file
This is where you can write a long description for your project. Learn more about READMEs.

Add .gitignore

.gitignore template: None

Choose which files not to track from a list of templates. Learn more about ignoring files.

Choose a license

License: None

A license tells others what they can and can't do with your code. Learn more about licenses.

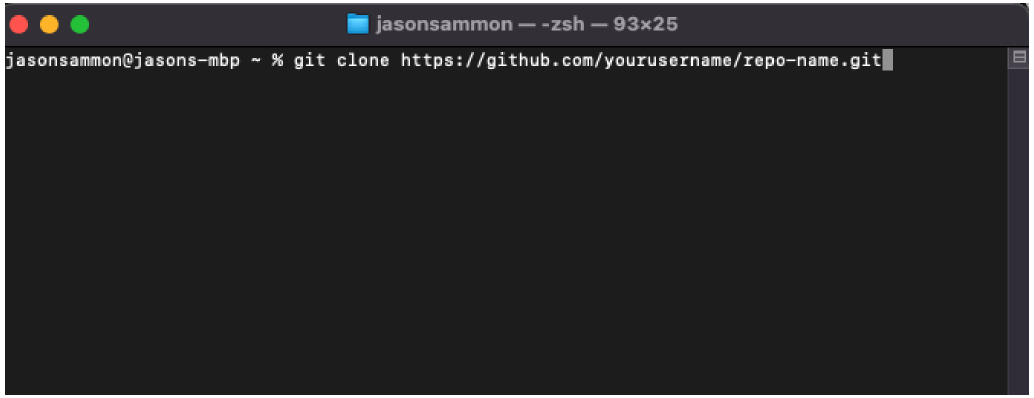
# CLONING A REPOSITORY LOCALLY

- After creating a repository, you can clone it to your local machine:

  Example command:

  git clone https://github.com/yourusername/repo-name.git

- Cloning downloads the entire project to the local machine.



```
jasonsammon@jasons-mbp ~ % git clone https://github.com/yourusername/repo-name.git
```

# CREATING A README.MD FILE

- A README.md describes the project and its usage.
  Command to create a README.md file using the terminal:

  ```
  touch README.md
  ```

- Add content using a text editor or VSCode.

  ```
  code .
  ```

# COMMITTING AND PUSHING CHANGES

- **Commit**: Save a snapshot of changes.

  Command:
  git add . (to stage changes)
  git commit -m "Add README.md"
- **Push**:
  Send changes to the remote GitHub repository.
  Command: git push
- Key Point:
  Committing and pushing ensure your changes are safely stored on GitHub.

# DEMO: GITHUB WORKFLOW

- Now we’ll walk through creating a repo on GitHub, cloning it, adding a README.md, committing the changes, and pushing to GitHub.

1. Create a repository.
2. Clone it locally.
3. Create a README.md file.
4. Add content, commit, and push.

Demo…

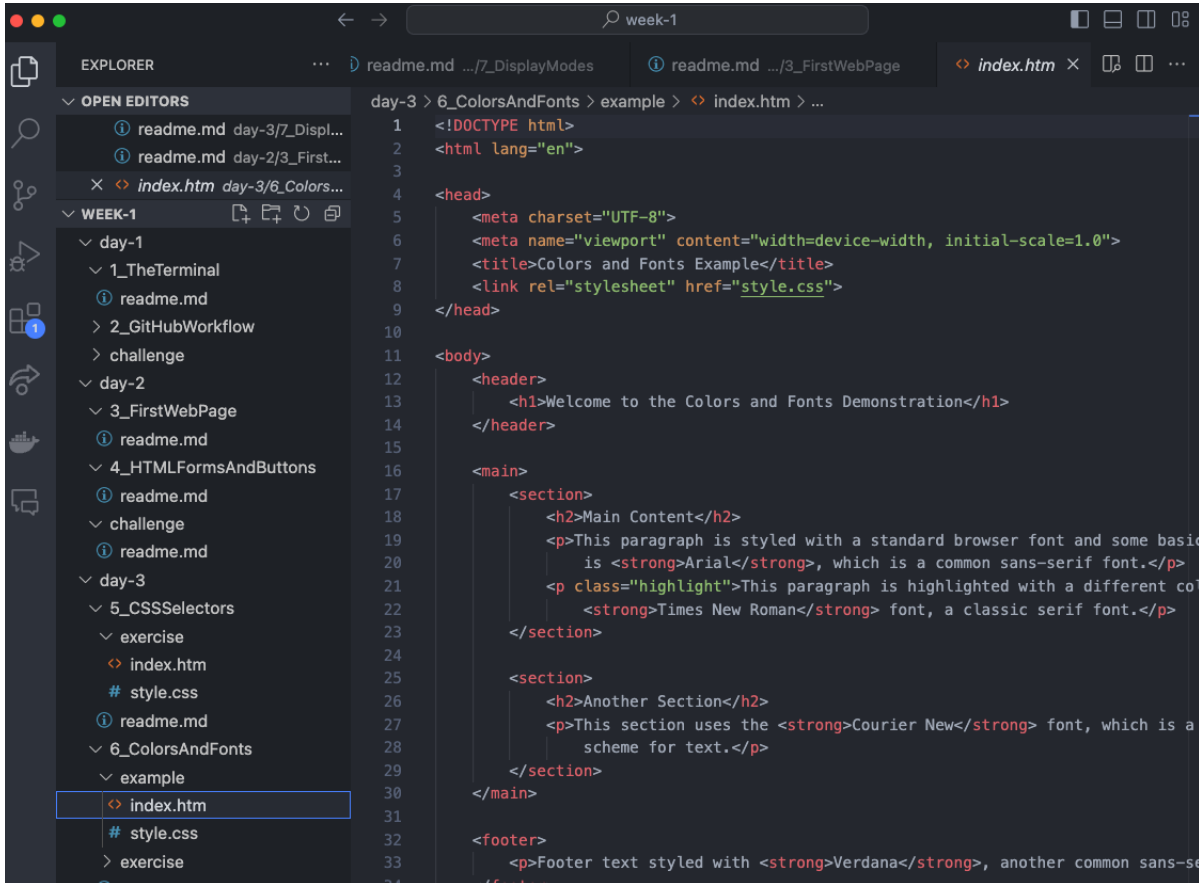
# USING GITHUB WITH VSCODE

- **Learning Objective:**

  We will learn how to integrate GitHub with Visual Studio Code (VSCode) for a streamlined development workflow.

# INTRODUCTION TO VSCODE

- VSCode is a popular code editor that integrates with Git and GitHub.
- Features: Git integration, terminal access, and powerful extensions.



```html
<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Colors and Fonts Example</title>
    <link rel="stylesheet" href="style.css">
</head>

<body>
    <header>
        <h1>Welcome to the Colors and Fonts Demonstration</h1>
    </header>

    <main>
        <section>
            <h2>Main Content</h2>
            <p>This paragraph is styled with a standard browser font and some basi
                is <strong>Arial</strong>, which is a common sans-serif font.</p>
            <p class="highlight">This paragraph is highlighted with a different co
                <strong>Times New Roman</strong> font, a classic serif font.</p>
        </section>

        <section>
            <h2>Another Section</h2>
            <p>This section uses the <strong>Courier New</strong> font, which is a
                scheme for text.</p>
        </section>
    </main>

    <footer>
        <p>Footer text styled with <strong>Verdana</strong>, another common sans-se
```

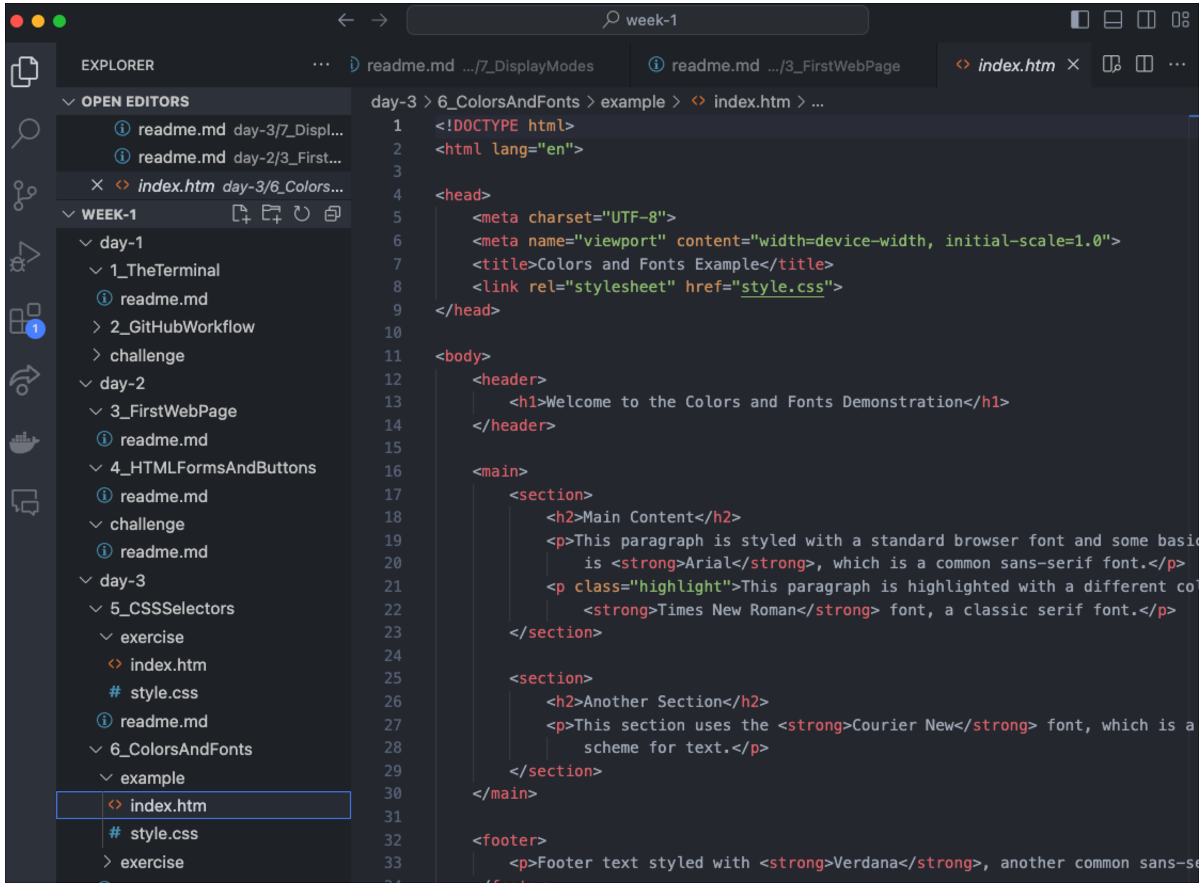
# SETTING UP GITHUB IN VSCODE

- Installing Git and ensuring it's configured in VSCode.

1. Git needs to be installed on the machine.
2. VSCode automatically detects Git repositories.

- Open a cloned GitHub repo in VSCode:

1. Use the terminal or file explorer to open the folder in VSCode.
2. Navigate to the terminal in VSCode with Ctrl + ` or from the menu.



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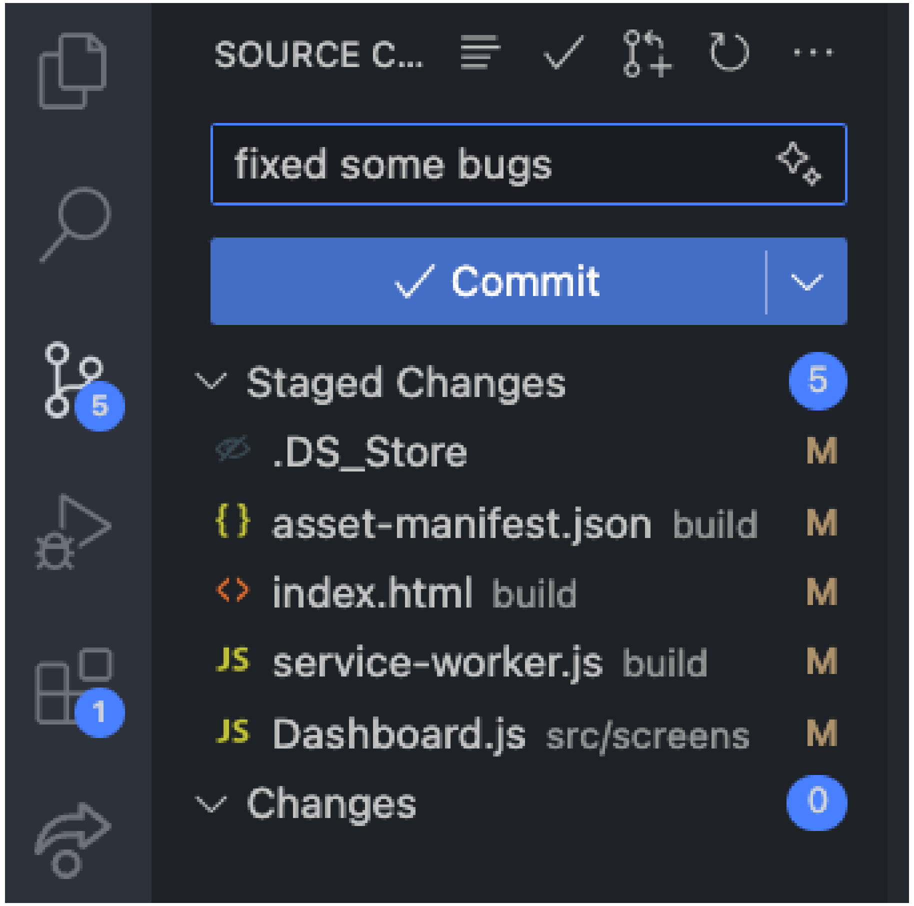
# GIT COMMANDS IN VSCODE

- VSCode provides a graphical interface for Git commands:

1. **Staging Changes**: You can select files and stage them by clicking the "+" icon next to each file.
2. **Committing**: Write a commit message in the text box and click the checkmark to commit.
3. **Pushing**: Click the "Push" button to send changes to GitHub.



fixed some bugs

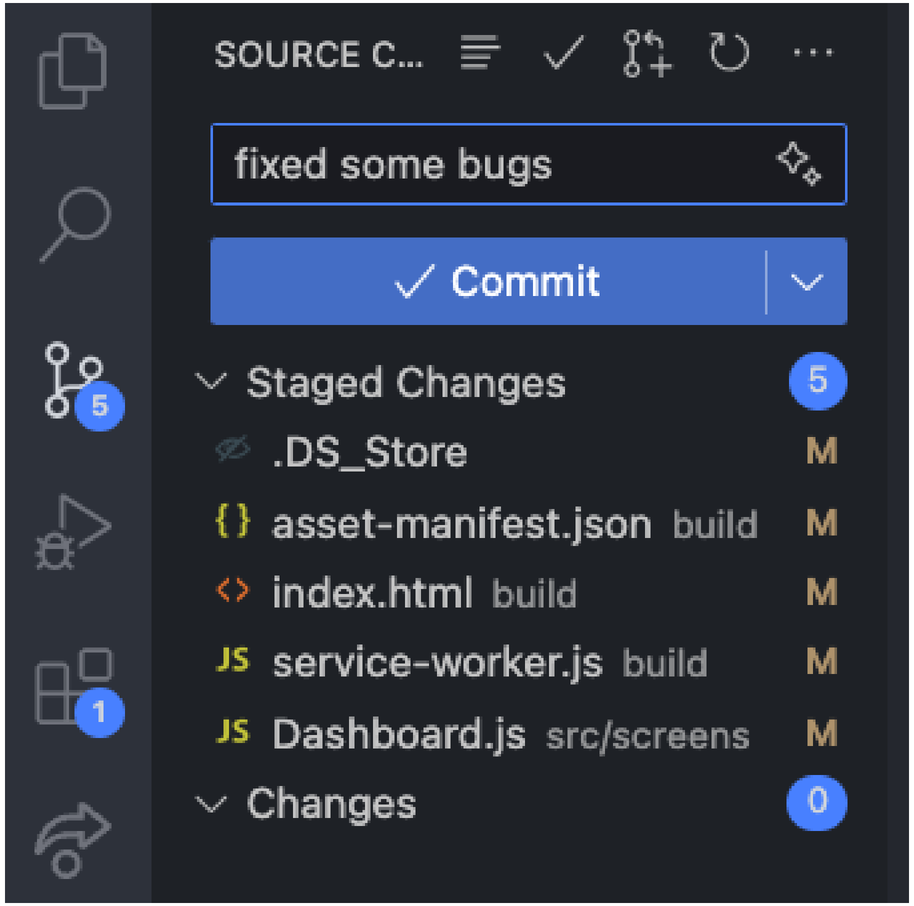
Staged Changes 5

| | | |
|---|---|---|
| .DS_Store | | M |
| asset-manifest.json | build | M |
| index.html | build | M |
| service-worker.js | build | M |
| Dashboard.js | src/screens | M |

Changes 0

# DEMO: VSCODE GITHUB WORKFLOW

- Making a change to a file (e.g., editing README.md).
- Staging, committing, and pushing the change—all within VSCode's interface.



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Changes 0

# CONCLUSION AND Q&A

- Navigating the terminal and using basic commands.
- Creating and managing repositories on GitHub.
- Using GitHub efficiently with VSCode.

# QUESTIONS?