

Git/Github Project

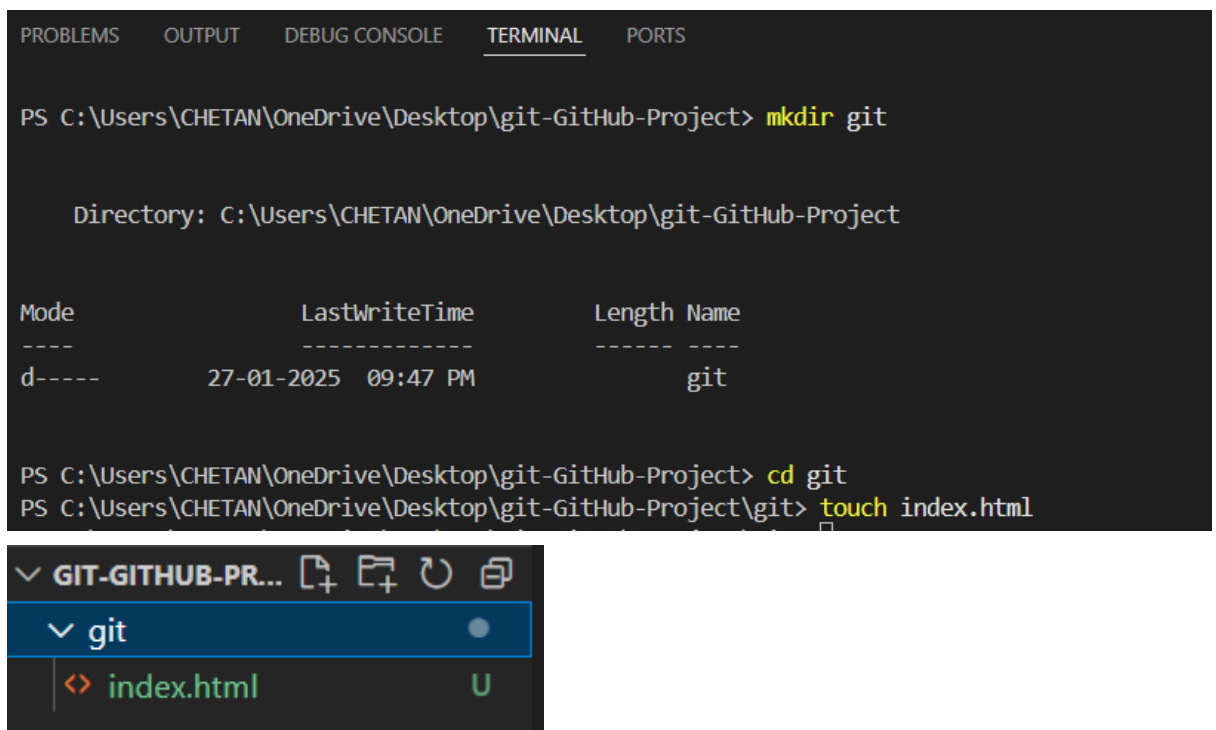
Project Name

Git Version Control Workflow

Steps to Complete the Project

1. Initialize Local Repository

- I have created a folder named "git" and within it, I have created an index.html file.



The screenshot shows a Windows terminal window with the following commands and output:

```
PS C:\Users\CHETAN\OneDrive\Desktop\git-GitHub-Project> mkdir git

Directory: C:\Users\CHETAN\OneDrive\Desktop\git-GitHub-Project

Mode                LastWriteTime         Length Name
----                -
d-----          27-01-2025   09:47 PM             git

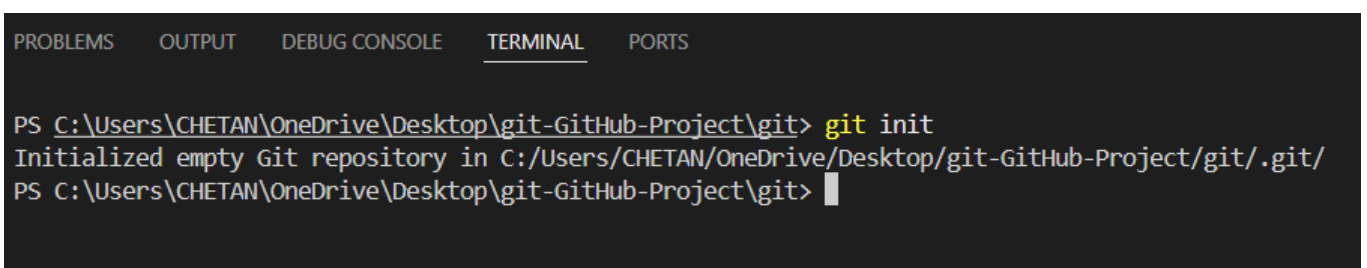
PS C:\Users\CHETAN\OneDrive\Desktop\git-GitHub-Project> cd git
PS C:\Users\CHETAN\OneDrive\Desktop\git-GitHub-Project\git> touch index.html
```

Below the terminal, a VS Code file explorer shows the project structure:

- Git-GitHub-PR... (expanded)
 - git
 - index.html (modified)

- Initialize Git Repository:

I have initialized the Git repository using the `git init` command.



The screenshot shows a Windows terminal window with the following command and output:

```
PS C:\Users\CHETAN\OneDrive\Desktop\git-GitHub-Project\git> git init
Initialized empty Git repository in C:/Users/CHETAN/OneDrive/Desktop/git-GitHub-Project/git/.git/
PS C:\Users\CHETAN\OneDrive\Desktop\git-GitHub-Project\git> 
```

2. Stage and Commit Changes

Stage Changes:

To stage the `index.html` file, use the following command:

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

PS C:\Users\CHETAN\OneDrive\Desktop\git-GitHub-Project\git> git add index.html
PS C:\Users\CHETAN\OneDrive\Desktop\git-GitHub-Project\git> ls

Directory: C:\Users\CHETAN\OneDrive\Desktop\git-GitHub-Project\git

Mode                LastWriteTime         Length Name
----                -
-a----            27-01-2025   07:53 PM             0 index.html
-a----            27-01-2025   07:52 PM            57 README.md

PS C:\Users\CHETAN\OneDrive\Desktop\git-GitHub-Project\git> |
```

I have provided meaningful commit messages for the `index.html` file.

```
git > index.html > html > body > p
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4  |   <meta charset="UTF-8">
5  |   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6  |   <title>Document</title>
7  </head>
8  <body>
9  |   <p>Heyy, This is paragraph tag .</p>
10 </body>
11 </html>

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

PS C:\Users\CHETAN\OneDrive\Desktop\git-GitHub-Project\git> git commit -m "Add introductory paragraph to index.html"
[main (root-commit) ac0dc57] Add introductory paragraph to index.html
1 file changed, 11 insertions(+)
create mode 100644 index.html
PS C:\Users\CHETAN\OneDrive\Desktop\git-GitHub-Project\git> |
```

3. Setup Git Ignore

Create a **.gitignore** File:

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

PS C:\Users\CHETAN\OneDrive\Desktop\git-GitHub-Project\git> touch .gitignore
PS C:\Users\CHETAN\OneDrive\Desktop\git-GitHub-Project\git> ls

Directory: C:\Users\CHETAN\OneDrive\Desktop\git-GitHub-Project\git

Mode                LastWriteTime         Length Name
----                -
-a-----         27-01-2025   10:25 PM             0 .gitignore
-a-----         27-01-2025   10:08 PM          251 index.html
```

I have created a **temp.log** file and a **dir** folder.

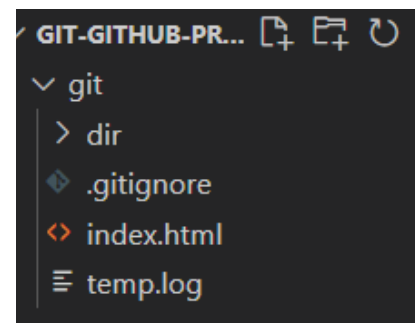
```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

PS C:\Users\CHETAN\OneDrive\Desktop\git-GitHub-Project\git> mkdir dir

Directory: C:\Users\CHETAN\OneDrive\Desktop\git-GitHub-Project\git

Mode                LastWriteTime         Length Name
----                -
d-----         27-01-2025   10:32 PM             dir

PS C:\Users\CHETAN\OneDrive\Desktop\git-GitHub-Project\git> touch temp.log
PS C:\Users\CHETAN\OneDrive\Desktop\git-GitHub-Project\git> 
```



```
EXPLORER  ...  index.html  .gitignore  X

OPEN EDITORS
  index.html git
  .gitignore git

GIT-GITHUB-PROJECT
  git
  > dir
  .gitignore
  index.html
  temp.log

git > .gitignore
1 dir/
2 temp.log

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

PS C:\Users\CHETAN\OneDrive\Desktop\git-GitHub-Project\git> git status
On branch main
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   index.html

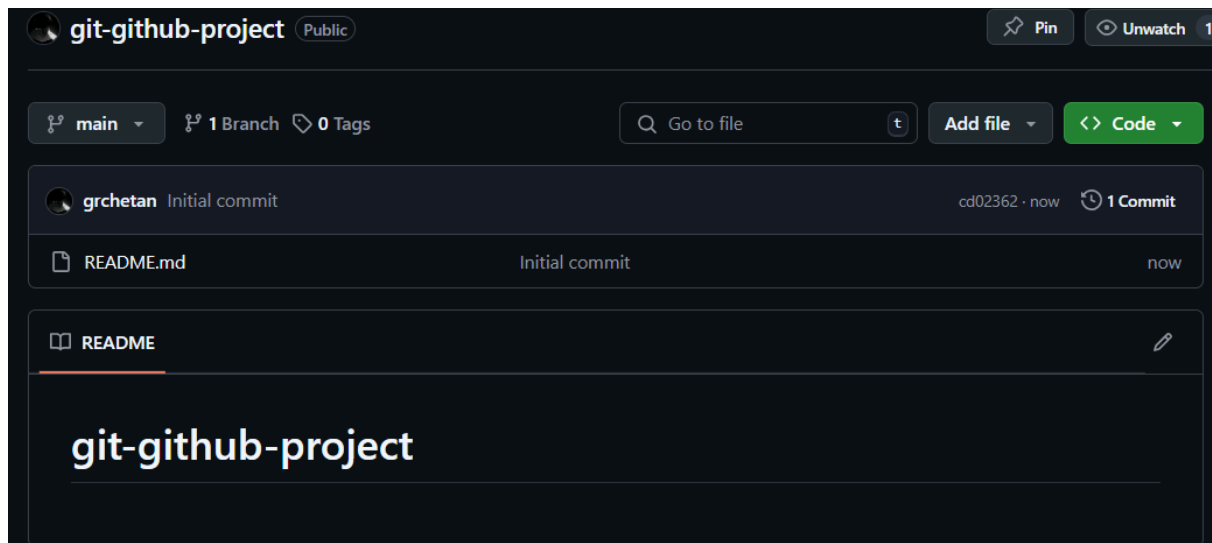
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        .gitignore

no changes added to commit (use "git add" and/or "git commit -a")
PS C:\Users\CHETAN\OneDrive\Desktop\git-GitHub-Project\git> 
```

The **temp.log file and **dir** folder will now be ignored and not tracked by Git.**

4. Push to GitHub:

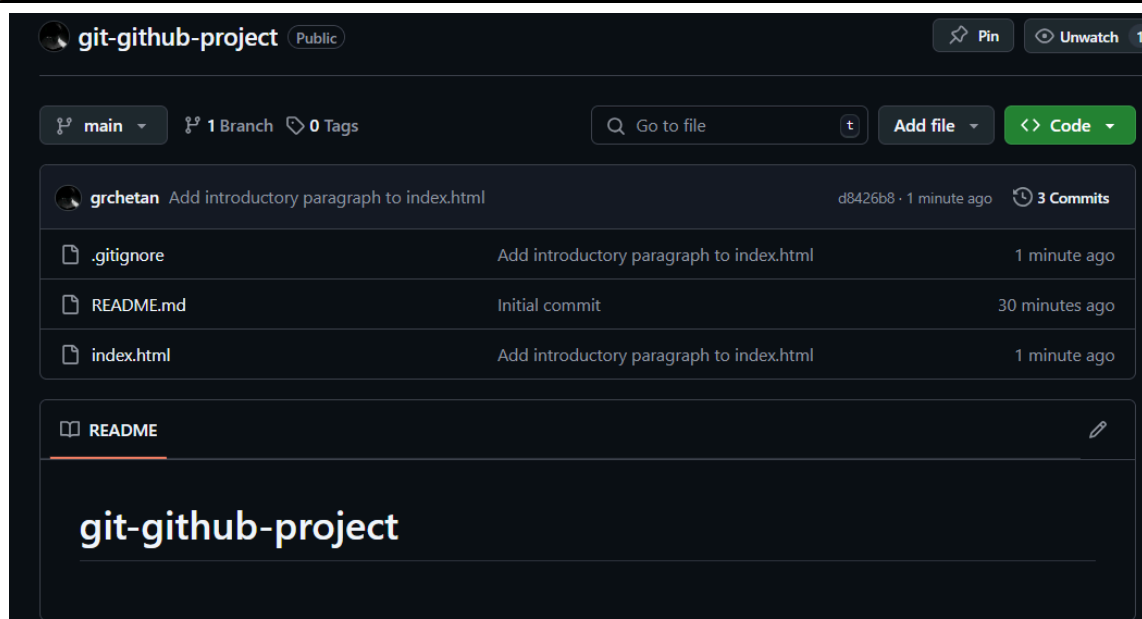
Create a GitHub Repository:



Push Local Repository to GitHub:

```
CHETAN@LAPTOP-TIQMNKVG MINGW64 ~/onedrive/desktop/Git_Github_Project/git (main)
$ git push origin main
Enumerating objects: 8, done.
Counting objects: 100% (8/8), done.
Delta compression using up to 20 threads
Compressing objects: 100% (5/5), done.
Writing objects: 100% (7/7), 766 bytes | 255.00 KiB/s, done.
Total 7 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), done.
To https://github.com:grchetan/git-github-project
   cd02362..d8426b8  main -> main

CHETAN@LAPTOP-TIQMNKVG MINGW64 ~/onedrive/desktop/Git_Github_Project/git (main)
$
```



5. Create and Work on a New Branch:

Create a new branch called `develop`

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

PS C:\Users\CHETAN\OneDrive\Desktop\Git_Github_Project\git> git branch
* main
PS C:\Users\CHETAN\OneDrive\Desktop\Git_Github_Project\git> git branch develop
PS C:\Users\CHETAN\OneDrive\Desktop\Git_Github_Project\git> git branch
develop
* main
PS C:\Users\CHETAN\OneDrive\Desktop\Git_Github_Project\git> 
```

Update files in the develop branch and commit the changes.

```
PS C:\Users\CHETAN\OneDrive\Desktop\Git_Github_Project\git> git add .
PS C:\Users\CHETAN\OneDrive\Desktop\Git_Github_Project\git> git status
On branch develop
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   index.html
        new file:   style.css

PS C:\Users\CHETAN\OneDrive\Desktop\Git_Github_Project\git> git commit -m "I have added a CSS file and modified the index file"
[develop 0abd552] I have added a CSS file and modified the index file
 2 files changed, 13 insertions(+), 7 deletions(-)
 create mode 100644 style.css
PS C:\Users\CHETAN\OneDrive\Desktop\Git_Github_Project\git> 
```

6. Merge Branches:

Push `develop` Branch to GitHub

```
create mode 100644 style.css
PS C:\Users\CHETAN\OneDrive\Desktop\Git_Github_Project\git> git push origin develop
Enumerating objects: 6, done.
Counting objects: 100% (6/6), done.
Delta compression using up to 20 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (4/4), 545 bytes | 545.00 KiB/s, done.
Total 4 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
remote:
remote: Create a pull request for 'develop' on GitHub by visiting:
remote:   https://github.com/grchetan/git-github-project/pull/new/develop
remote:
To https://github.com/grchetan/git-github-project
 * [new branch]      develop -> develop
PS C:\Users\CHETAN\OneDrive\Desktop\Git_Github_Project\git> 
```

Branches New branch

Overview Yours Active Stale All

Q Search branches...

Default

Branch	Updated	Check status	Behind	Ahead	Pull request
main	33 minutes ago			Default	...

Your branches

Branch	Updated	Check status	Behind	Ahead	Pull request
develop	1 minute ago		0	1	...

Active branches

Branch	Updated	Check status	Behind	Ahead	Pull request
develop	1 minute ago		0	1	...

*In
Github*

Merge **develop** Branch into **main**:

```

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

PS C:\Users\CHETAN\OneDrive\Desktop\Git_Github_Project\git> git checkout main
Switched to branch 'main'
PS C:\Users\CHETAN\OneDrive\Desktop\Git_Github_Project\git> git merge develop
Updating d8426b8..0abd552
Fast-forward
 index.html | 15 ++++++-----
 style.css  | 5 +++++
 2 files changed, 13 insertions(+), 7 deletions(-)
 create mode 100644 style.css
PS C:\Users\CHETAN\OneDrive\Desktop\Git_Github_Project\git>

```

Push Merged Changes to GitHub:

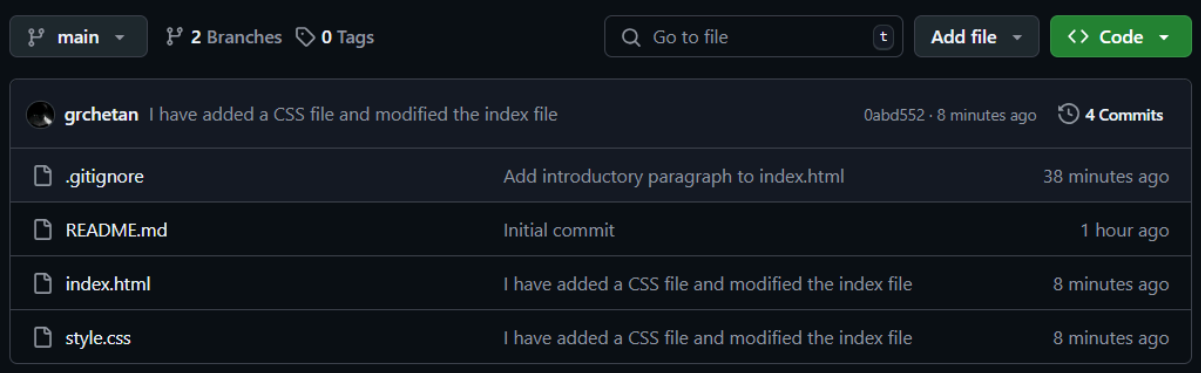
```

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

PS C:\Users\CHETAN\OneDrive\Desktop\Git_Github_Project\git> git push origin main
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/grchetan/git-github-project
 d8426b8..0abd552  main -> main
PS C:\Users\CHETAN\OneDrive\Desktop\Git_Github_Project\git>
PS C:\Users\CHETAN\OneDrive\Desktop\Git_Github_Project\git>

```

The CSS file has been added to the main branch after merging



The screenshot shows the GitHub repository interface for the 'main' branch. At the top, there are navigation elements: a dropdown for 'main', a link to '2 Branches', a link to '0 Tags', a search bar 'Go to file', an 'Add file' button, and a 'Code' button. Below this, a commit summary for user 'grchetan' is displayed: 'I have added a CSS file and modified the index file', with commit hash '0abd552' and a timestamp of '8 minutes ago'. It also shows '4 Commits'. The commit history table below lists four commits:

File	Commit Message	Time Ago
.gitignore	Add introductory paragraph to index.html	38 minutes ago
README.md	Initial commit	1 hour ago
index.html	I have added a CSS file and modified the index file	8 minutes ago
style.css	I have added a CSS file and modified the index file	8 minutes ago

Github Repository main branch link

<https://github.com/grchetan/git-github-project>

Github Repository develop branch link

<https://github.com/grchetan/git-github-project/tree/develop>