

# Git & GitHub Assignment

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## Section 0 – Steps to follow:

### 1. Create a directory 'project\_dir' & cd to 'project\_dir'.

- I used VS Code as the editor
- To create a directory/folder **mkdir** command is used
- To change the directory **cd** command is used

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment> mkdir project_dir

Directory: C:\Users\Himanshu\Desktop\Git & GitHub Assignment

Mode                LastWriteTime         Length Name
----                -
d-----          26-10-2021   06:55 PM             project_dir

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment> cd project_dir
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> |
```

### 2. Initialize git version database. (git init)

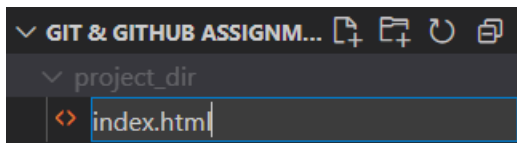
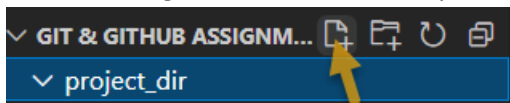
**git init** command is used to initialize the git database (repository) in the folder 'project\_dir'

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> git init
Initialized empty Git repository in C:/Users/Himanshu/Desktop/Git & GitHub Assignment/project_dir/.git/
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> |
```

### 3. Create a new file index.html.

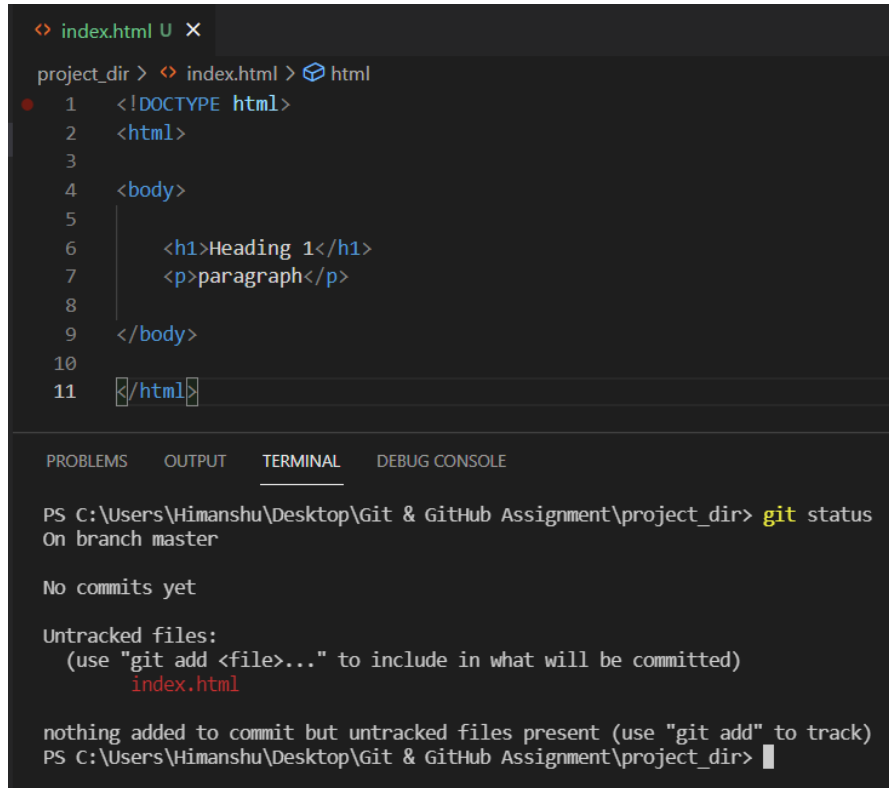
To create a new file in git bash or Linux OS command terminal we can use the **touch** command.

But I am using VS Code so, I manually created the file.



#### 4. Check the git status. You should find index.html as untracked file.

To check the status of the git the command used is **git status**, after clicking the enter key the file index.html shows as an untracked file.



```
index.html U X
project_dir > index.html > html
1 <!DOCTYPE html>
2 <html>
3
4 <body>
5
6     <h1>Heading 1</h1>
7     <p>paragraph</p>
8
9 </body>
10
11 </html>

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> git status
On branch master

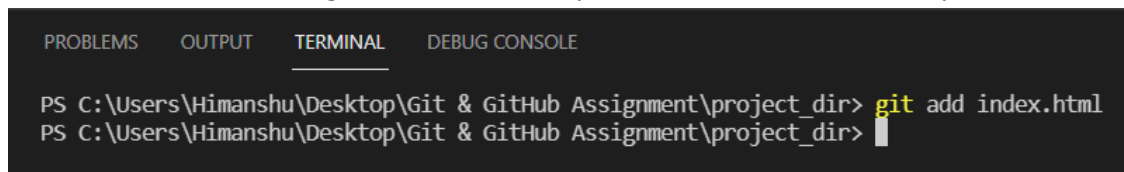
No commits yet

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

nothing added to commit but untracked files present (use "git add" to track)
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir>
```

#### 5. Stage the index.html file.

- To stage the index.html file the command **git add index.html** is used
- If one wants to stage all the files that is present in the current directory the command **git add .** can be used.

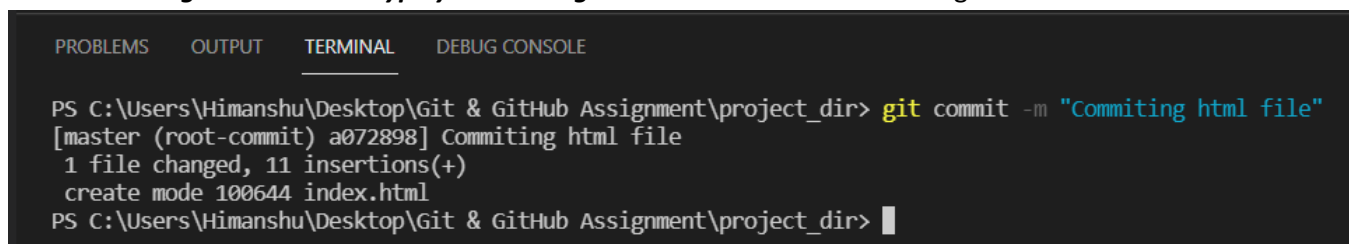


```
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> git add index.html
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir>
```

#### 6. Commit index.html

After the staging step is done, one can opt to commit the file(s) to git local repository, and that can be done using the command **git commit -m "Type your message here"** ' -m' indicates message

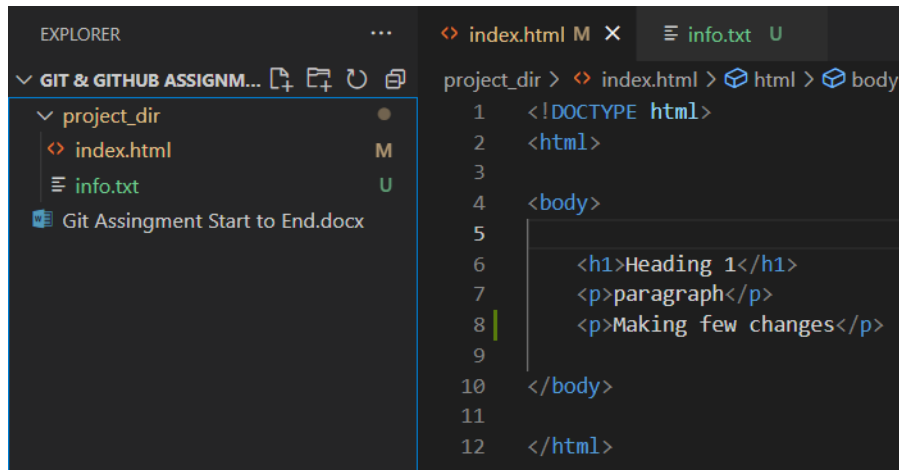


```
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> git commit -m "Committing html file"
[master (root-commit) a072898] Committing html file
1 file changed, 11 insertions(+)
create mode 100644 index.html
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir>
```

## 7. Make few changes in index.html & create a new file info.txt file.

A new file is manually created as info.txt

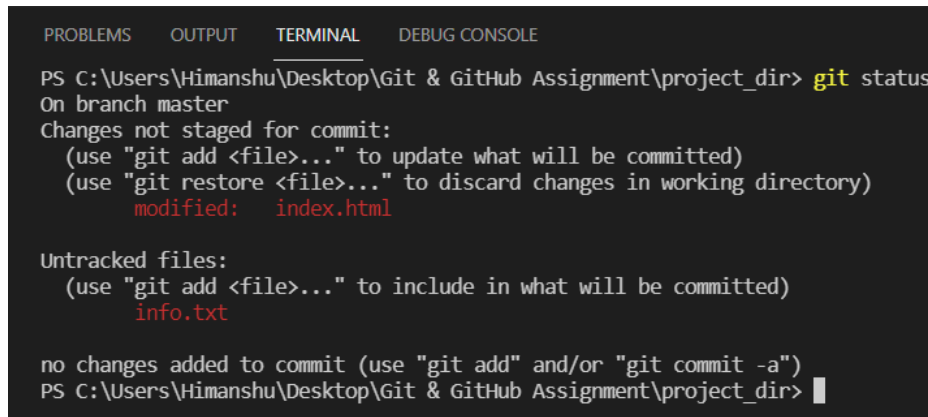


The screenshot shows the VS Code interface. The Explorer sidebar on the left displays the file structure: 'project\_dir' containing 'index.html' (modified) and 'info.txt' (untracked). The main editor area shows the content of 'index.html' with the following code:

```
1 <!DOCTYPE html>
2 <html>
3
4 <body>
5
6   <h1>Heading 1</h1>
7   <p>paragraph</p>
8   <p>Making few changes</p>
9
10 </body>
11
12 </html>
```

## 8. Check git status. You should find index.html & info.txt as untracked files.

After using the git status command, the terminal gives out the message as both the files is untracked or in simple word the files which aren't staged yet.



The screenshot shows the VS Code Terminal with the following output:

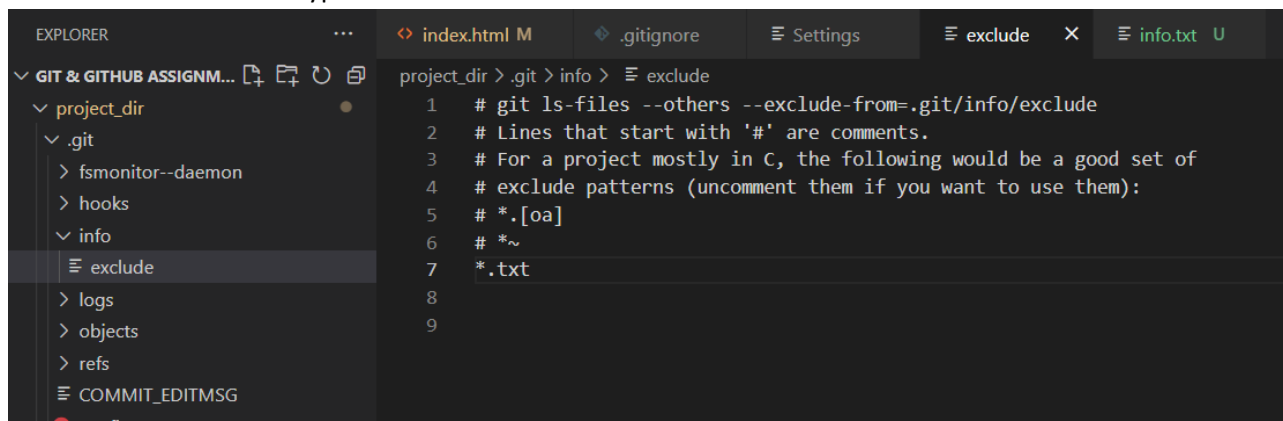
```
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> git status
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   index.html

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

no changes added to commit (use "git add" and/or "git commit -a")
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir>
```

## 9. Configure GIT to ignore all txt files.

- One can opt to ignore some specific file like 'info.txt' or all files of same extension '\*.txt'
- First a **'.gitignore'** file should be created and type the files that needs to be excluded.
- In VS Code the method I used is quite different, I navigated to the directory: **.git/info** and clicked open the exclude file and typed in the last line: **'\*.txt'**



The screenshot shows the VS Code interface. The Explorer sidebar on the left displays the file structure: 'project\_dir' containing '.git' (which includes 'fsmonitor--daemon', 'hooks', 'info', 'logs', 'objects', 'refs', and 'COMMIT\_EDITMSG') and 'exclude' (under 'info'). The main editor area shows the content of the '.git/info/exclude' file with the following code:

```
1 # git ls-files --others --exclude-from=.git/info/exclude
2 # Lines that start with '#' are comments.
3 # For a project mostly in C, the following would be a good set of
4 # exclude patterns (uncomment them if you want to use them):
5 # *.o
6 # *~
7 *.txt
8
9
```

#### 10. Again check the git status. You should find only index.html as untracked file.

Now, all the filetypes of .txt are excluded so, only index.html is untracked now.

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> dir

Directory: C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir

Mode                LastWriteTime         Length Name
----                -
-a----            26-10-2021  07:34 PM             134 index.html
-a----            26-10-2021  07:46 PM              7 info.txt

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> git status
On branch master
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

no changes added to commit (use "git add" and/or "git commit -a")
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> █
```

#### 11. Stage & commit index.html

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> git add index.html
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> git commit -m "Committing html file for the second time"
[master afbb4e3] Committing html file for the second time
1 file changed, 1 insertion(+)
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> █
```

#### 12. Log all your comments so far.

To check the logs about the changes that has been made to the repository the command **git log** can be used.

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> git log
commit afbb4e3b718c937782ced51ef3fd7554bcd0050b (HEAD -> master)
Author: Himanshu <himanshubai19@outlook.com>
Date:   Tue Oct 26 20:02:25 2021 +0530

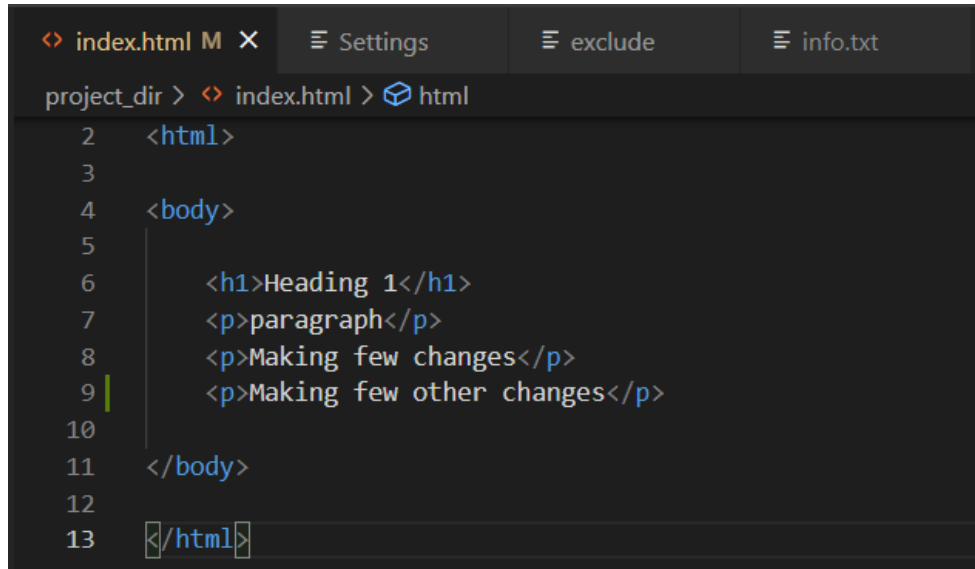
    Committing html file for the second time

commit a07289852fc5f7cc24df2d8fff65fc23d63dbd03
Author: Himanshu <himanshubai19@outlook.com>
Date:   Tue Oct 26 19:30:50 2021 +0530

    Committing html file
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> █
```

### 13. Make some changes in index.html.

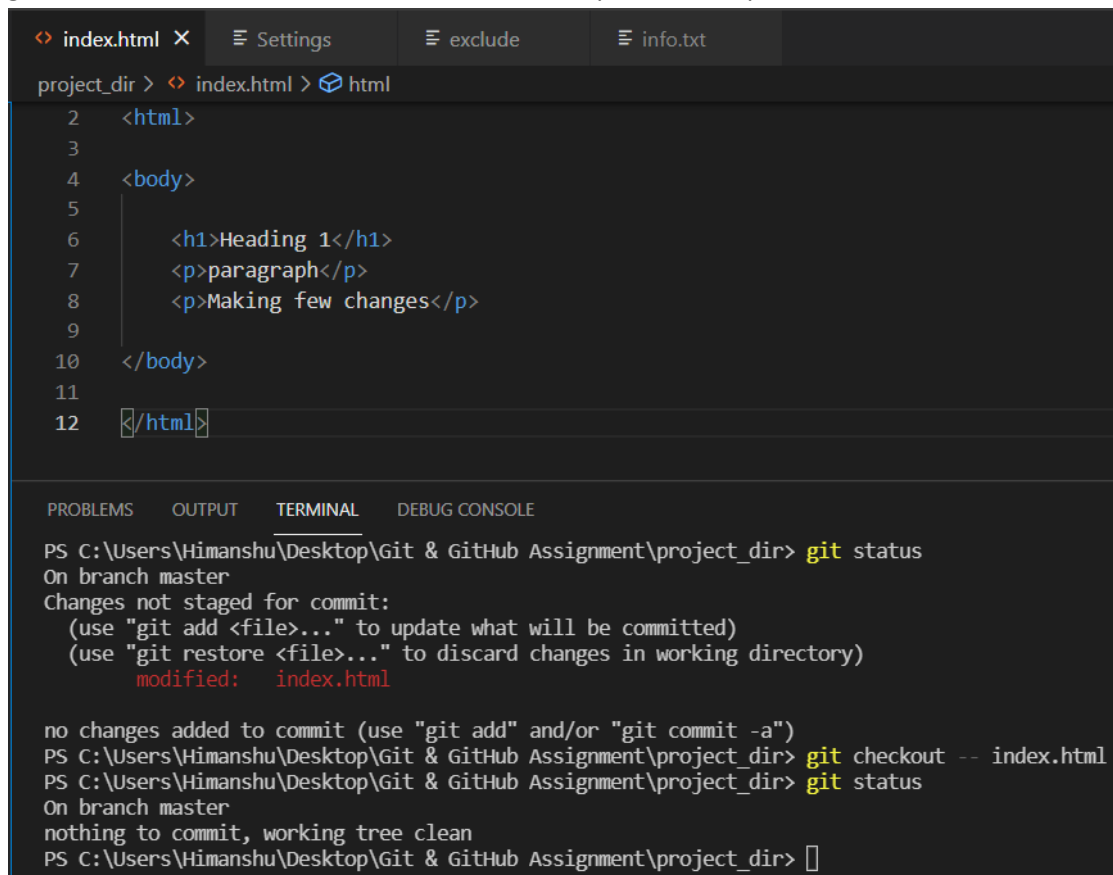
While making the changes in the file, in VS Code: if a new line is added a green vertical line is indicated beside the line number. If a line is truncated a small red box appears beside the line number.



```
index.html M X Settings exclude info.txt
project_dir > index.html > html
2 <html>
3
4 <body>
5
6     <h1>Heading 1</h1>
7     <p>paragraph</p>
8     <p>Making few changes</p>
9     <p>Making few other changes</p>
10
11 </body>
12
13 </html>
```

### 14. Revert the change made in the previous step using git command.

We can also use the reset command to revert back to the saved one. Here I used the command: **git checkout -- index.html** then the 9<sup>th</sup> line in the previous snapshot is deleted or reverts back.



```
index.html X Settings exclude info.txt
project_dir > index.html > html
2 <html>
3
4 <body>
5
6     <h1>Heading 1</h1>
7     <p>paragraph</p>
8     <p>Making few changes</p>
9
10 </body>
11
12 </html>
```

```
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> git status
On branch master
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

no changes added to commit (use "git add" and/or "git commit -a")
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> git checkout -- index.html
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> git status
On branch master
nothing to commit, working tree clean
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir>
```

## 15. Again change index.html.

```
index.html M X Settings exclude info.txt
project_dir > index.html > html > body > p
1 <!DOCTYPE html>
2 <html>
3
4 <body>
5
6 <h1>Heading 1</h1>
7 <p>paragraph</p>
8 <p>Making few changes</p>
9 <p>Making few other changes</p>
10
11 </body>
12
13 </html>
```

## 16. Stage index.html

```
index.html M X Settings exclude info.txt
project_dir > index.html > html > body > p
1 <!DOCTYPE html>
2 <html>
3
4 <body>
5
6 <h1>Heading 1</h1>
7 <p>paragraph</p>
8 <p>Making few changes</p>
9 <p>Making few other changes</p>
10
11 </body>
12
13 </html>
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> git add index.html
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir>
```

## 17. Revert back the last stage.

Here to revert back to last stage the command ***git reset HEAD index.html*** is used.

```
index.html M X Settings exclude info.txt
project_dir > index.html > html > body > p
1 <!DOCTYPE html>
2 <html>
3
4 <body>
5
6 <h1>Heading 1</h1>
7 <p>paragraph</p>
8 <p>Making few changes</p>
9 <p>Making few other changes</p>
10
11 </body>
12
13 </html>
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> git add index.html
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> git reset HEAD index.html
Unstaged changes after reset:
M    index.html
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir>
```

### 18. Rename 'add' command to 'my-add'.

Here we can use an alias for the add command

By using **git --global alias.my-add add**

The alias name for the add command is add now

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> git config --global alias.my-add add
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> 
```

### 19. Using my\_add command Stage index.html again & commit the changes.

By using the alias given previously one can stage the files.

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> git config --global alias.my-add add
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> git my-add index.html
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> git commit -m "Final commit"
[master 9aa7935] Final commit
 1 file changed, 1 insertion(+)
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> 
```

### 20. Revert the last commit.

By using the command **git reset HEAD**

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> git reset HEAD
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> 
```

# **GIT Branching**

Objective: Commit HTML, CSS & JavaScript assignments into GIT.

SECTION-1 (HTML assignments) - Steps to follow:

21. First take a backup of your assignments & projects. This is required because due to incorrect GIT operation you may lose your files.
22. Create an empty directory 'Assignments' & cd to 'Assignments'.

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> mkdir Assignments

Directory: C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir

Mode                LastWriteTime         Length Name
----                -
d-----          26-10-2021   09:40 PM              Assignments

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir> cd Assignments
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\project_dir\Assignments> |
```

23. Create a file README.txt inside 'Assignments' & write few lines about the contents of 'Assignments' folder.

```
≡ README.txt X

project_dir > Assignments > ≡ README.txt
  1  This folder consists of three kinds of files HTML, CSS and JavaScript.
  2  Going through the branching part in Git.
```

24. Commit README.txt file.

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git commit -m "First commit(README.txt)"
[master (root-commit) ae8c9ab] First commit(README.txt)
1 file changed, 2 insertions(+)
create mode 100644 README.txt
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> |
```



## 25. Now create a new branch 'html-assignments'.

By default, there will be branch called master or main branch.

To create a new branch the command which should be used is **git branch <branchname>**

And to know in which branch currently you're working in you can type in the command **git branch**

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git branch html-assignments
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git branch
html-assignments
* master
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> 
```

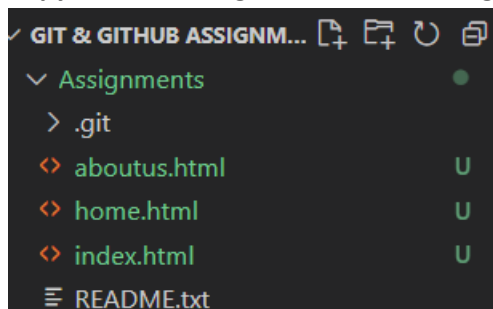
## 26. Switch to 'html-assignments' branch.

To switch or shift to other branch you will need to use the command **git checkout <branchname>**

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git checkout html-assignments
Switched to branch 'html-assignments'
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git branch
* html-assignments
  master
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> 
```

## 27. Copy all HTML assignments inside 'Assignments' folder.



## 28. Commit HTML assignments into 'html-assignments' branch.

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git add .
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git commit -m "First Commit(html files)"
[html-assignments 6b1cc4d] First Commit(html files)
3 files changed, 0 insertions(+), 0 deletions(-)
create mode 100644 aboutus.html
create mode 100644 home.html
create mode 100644 index.html
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> 
```

## 29. Make minor changes into few files belonging to 'html-assignments' branch.

## 30. Commit those changed files.

```
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git add .
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git commit -m "Second commit(html files)"
[html-assignments c254880] Second commit(html files)
 3 files changed, 39 insertions(+)
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments>
```

## 31. Switch to master branch.

To switch back to master branch the command is: **git checkout master**

```
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git checkout master
Switched to branch 'master'
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments>
```

## 32. Make minor changes into README.txt file & commit those changes into master.

```
Assignments > README.txt
1 This folder consists of three kinds of files HTML, CSS and JavaScript.
2 Going through the branching part in Git.
3 Three html files are added:
4 aboutus.html,
5 home.html
6 index.html
```

### Committing the README.txt file

```
Assignments > ≡ README.txt
1 This folder consists of three kinds of files HTML, CSS and JavaScript.
2 Going through the branching part in Git.
3 Three html files are added:
4 aboutus.html,
5 home.html
6 index.html
```

---

```
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git add README.txt
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git commit -m "committing README.txt(2)"
[master 2d46705] committing README.txt(2)
1 file changed, 5 insertions(+), 1 deletion(-)
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> █
```

### 33. Again switch to 'html-assignments' branch.

```
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git add README.txt
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git commit -m "committing README.txt(2)"
[master 2d46705] committing README.txt(2)
1 file changed, 5 insertions(+), 1 deletion(-)
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git checkout html-assignments
Switched to branch 'html-assignments'
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> █
```

### 34. Make minor changes into few files belonging to 'html-assignments' branch.

Minor changes were made

### 35. Commit those changes.

```
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git add .
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git commit -m "committing html files for the third time"
[html-assignments fa37c48] committing html files for the third time
3 files changed, 3 insertions(+)
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> █
```

### 36. Switch to master.

```
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git checkout master
Switched to branch 'master'
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> █
```

### 37. Merge 'html-assignments' branch into master. Confirm all html assignments are shown in master.

To merge the branch into master the command used is: **git merge <branchname>**

And to list the contents the command used is: **git ls-files**

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git merge html-assignments
Updating 9cbc7dd..45c2d46
Fast-forward
 aboutus.html | 14 ++++++++
 home.html   | 14 ++++++++
 index.html  | 14 ++++++++
 3 files changed, 42 insertions(+)
 create mode 100644 aboutus.html
 create mode 100644 home.html
 create mode 100644 index.html
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git ls-files
README.txt
aboutus.html
home.html
index.html
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> █
```

### 38. Finally delete the 'html-assignments' branch.

To delete a branch the command used is: **git branch -d <branchname>**

```
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git branch -d html-assignments
Deleted branch html-assignments (was 45c2d46).
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> █
```

## SECTION-2 - (CSS assignments) Steps to follow:

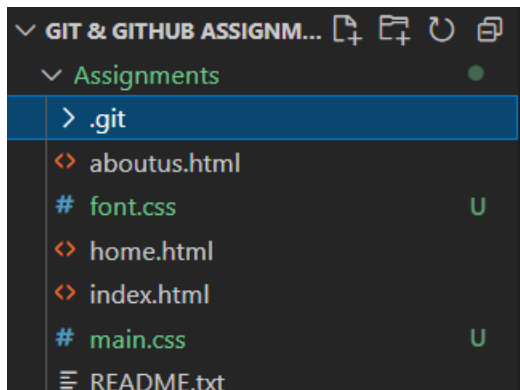
1. Create a new branch 'css-assignments'.

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git branch css-assignments
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> 
```

2. Switch to 'css-assignments' branch.

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git branch css-assignments
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git checkout css-assignments
Switched to branch 'css-assignments'
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> 
```

3. Copy all CSS assignments inside 'Assignments' folder.



4. Commit CSS assignments into 'css-assignments' branch.

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git commit -m "committing css files"
[css-assignments c73eb77] committing css files
2 files changed, 41 insertions(+)
create mode 100644 font.css
create mode 100644 main.css
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> 
```

5. Make minor changes into README.txt file on line 1 belonging to 'css-assignments' branch.

```
Assignments > README.txt
1 | This folder consists of three kinds of files HTML, CSS(minor changes) and JavaScript.
2 | Going through the branching part in git
3 | Three html files are added:
4 | aboutus.html,
5 | home.html
6 | index.html
```

6. Commit those changed files.

```
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git commit -m "README.txt changed"
[css-assignments df544a5] README.txt changed
1 file changed, 1 insertion(+), 1 deletion(-)
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> █
```

7. Switch to master branch.

```
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git checkout master
Switched to branch 'master'
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> █
```

8. Make minor changes into README.txt file on line 3 & commit those changes into master.

```
# main.css # font.css README.txt M X
Assignments > README.txt
1 This folder consists of three kinds of files HTML, CSS and JavaScript.
2 Going through the branching part in git
3 | (3rd line changed)
4 Three html files are added:
5 aboutus.html,
6 home.html
7 index.html
```

Committing the changes

```
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git checkout master
Switched to branch 'master'
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git add .
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git commit -m "3rd line README.txt"
[master e64548a] 3rd line README.txt
1 file changed, 1 insertion(+)
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> █
```

9. Again switch to 'css-assignments' branch.

```
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git checkout css-assignments
Switched to branch 'css-assignments'
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> █
```

10. Make minor changes into few files belonging to 'css-assignments' branch.

Changes were made.

### 11. Commit those changes.

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git checkout css-assignments
Switched to branch 'css-assignments'
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git add .
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git commit -m "Changes made"
[css-assignments f452a83] Changes made
2 files changed, 2 deletions(-)
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> █
```

### 12. Switch to master.

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git checkout master
Switched to branch 'master'
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> █
```

### 13. Merge 'css-assignments' branch into master. Confirm all css assignments are shown in master.

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git checkout master
Switched to branch 'master'
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git merge css-assignments
Auto-merging README.txt
Merge made by the 'recursive' strategy.
 README.txt | 2 +-
 font.css   | 19 ++++++
 main.css   | 20 ++++++
3 files changed, 40 insertions(+), 1 deletion(-)
create mode 100644 font.css
create mode 100644 main.css
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git ls-files
README.txt
aboutus.html
font.css
home.html
index.html
main.css
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> █
```

### 14. Finally delete the 'css-assignments' branch.

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git branch -d css-assignments
Deleted branch css-assignments (was f452a83).
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> █
```

### SECTION-3 - (JavaScript assignments) Steps to follow:

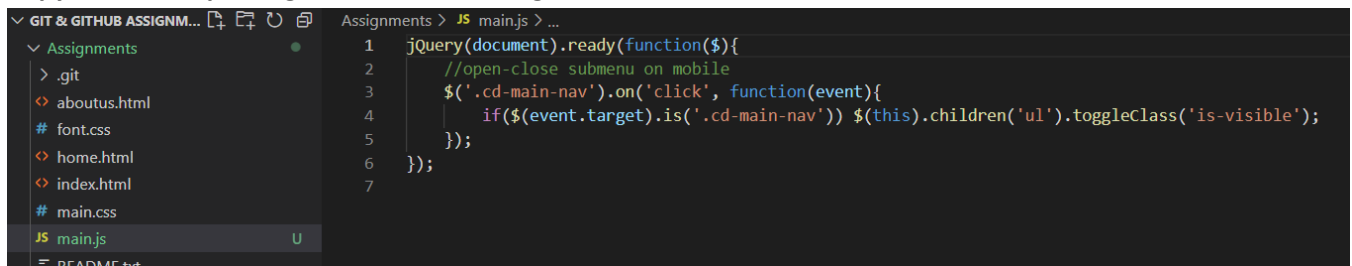
1. Create a new branch 'js-assignments'.

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git branch js-assignments
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> 
```

2. Switch to 'js-assignments' branch.

```
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git checkout js-assignments
Switched to branch 'js-assignments'
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> 
```

3. Copy all JavaScript assignments inside 'Assignments' folder.



```
Assignments > JS main.js > ...
1  jQuery(document).ready(function($){
2    //open-close submenu on mobile
3    $('.cd-main-nav').on('click', function(event){
4      if($(event.target).is('.cd-main-nav')) $(this).children('ul').toggleClass('is-visible');
5    });
6  });
7  
```

4. Commit JavaScript assignments into 'js-assignments' branch.

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git add .
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git commit -m "committing js files"
[js-assignments 661962d] committing js files
1 file changed, 6 insertions(+)
create mode 100644 main.js
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> 
```

5. Make minor changes into README.txt file on line 1 belonging to 'js-assignments' branch.

```
Assignments > README.txt
1  This folder consists of three kinds of files HTML, CSS(minor changes) and JavaScript(changes made).
2  Going through the branching part in git
3  (3rd line changed)
4  Three html files are added:
5  aboutus.html,
6  home.html
7  index.html
```



6. Commit those changed files.

```
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git add .
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git commit -m "README.txt changed"
[js-assignments dd8d69c] README.txt changed
1 file changed, 1 insertion(+), 1 deletion(-)
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> █
```

7. Switch to master branch.

```
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git checkout master
Switched to branch 'master'
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> █
```

8. Make minor changes into README.txt file on line 1 & commit those changes into master.

```
Assignments > ☰ README.txt
1 (Minor changes) This folder consists of three kinds of files HTML, CSS(minor changes) and JavaScript.
2 Going through the branching part in git
3 (3rd line changed)
4 Three html files are added:
5 aboutus.html,
6 home.html
7 index.html
```

```
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git checkout master
Switched to branch 'master'
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git add .
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git commit -m "line 1 changed"
[master d27298a] line 1 changed
1 file changed, 1 insertion(+), 1 deletion(-)
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> █
```

9. Again switch to 'js-assignments' branch.

```
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git checkout js-assignments
Switched to branch 'js-assignments'
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> █
```

10. Make minor changes into few files belonging to 'js-assignments' branch.

Changes were made.

### 11. Commit those changes.

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git checkout js-assignments
Switched to branch 'js-assignments'
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git add .
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git commit -m "changes made"
[js-assignments 08dc67a] changes made
1 file changed, 7 insertions(+)
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> █
```

### 12. Switch to master.

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git checkout master
Switched to branch 'master'
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> █
```

### 13. Merge 'js-assignments' branch into master. Confirm all JavaScript assignments are shown in master.

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git checkout master
Switched to branch 'master'
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git merge js-assignments
Updating a288f68..d8d07e6
Fast-forward
 main.js | 13 ++++++++
1 file changed, 13 insertions(+)
create mode 100644 main.js
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> █
```

### 14. Finally delete the 'js-assignments' branch.

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> git branch -d js-assignments
Deleted branch js-assignments (was 08dc67a).
PS C:\Users\Himanshu\Desktop\Git & GitHub Assignment\Assignments> █
```

# **GIT Remoting**

**Objective:** Pushing source code into GITHUB & collaborate team members.

**SECTION-3 (Pushing assignments to remote repository) - Steps to follow:**

**39. Create a github account if you do not have already.**

**40. Login on into github account.**

**41. Create new public repository 'freshersbatch-oct16'.**

Created a new public repository in my github account as 'freshersbatch-oct21'

**42. Commit & push any sample file to this repository under 'Assignments' directory.**

First, I tried pushing a single file, after committing the file, the command to connect the repository is:

***git remote add origin <repository link>***

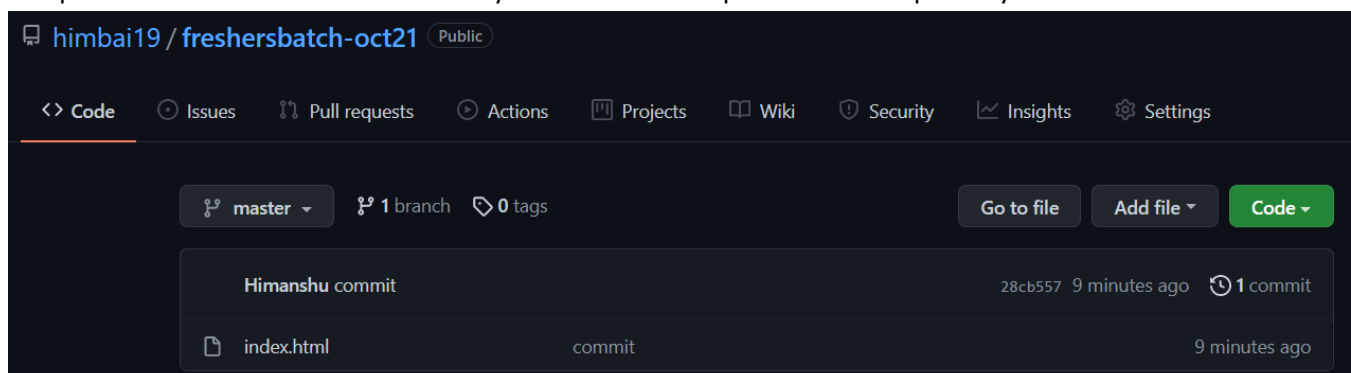
As the connection was successful then the command to push is:

***git push -u origin master***

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\New folder> git init
Initialized empty Git repository in C:/Users/Himanshu/Desktop/New folder/.git/
PS C:\Users\Himanshu\Desktop\New folder> git config user.name Himanshu Bai
PS C:\Users\Himanshu\Desktop\New folder> git config user.mail himanshubai19@outlook.com
PS C:\Users\Himanshu\Desktop\New folder> git add .
PS C:\Users\Himanshu\Desktop\New folder> git commit -m "commit"
[master (root-commit) 28cb557] commit
1 file changed, 14 insertions(+)
create mode 100644 index.html
PS C:\Users\Himanshu\Desktop\New folder> git remote add origin https://github.com/himbai19/freshersbatch-oct21.git
PS C:\Users\Himanshu\Desktop\New folder> git push -u origin master
info: please complete authentication in your browser...
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 315 bytes | 39.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/himbai19/freshersbatch-oct21.git
 * [new branch]      master -> master
Branch 'master' set up to track remote branch 'master' from 'origin'.
PS C:\Users\Himanshu\Desktop\New folder> █
```

The push command executed successfully and the file was updated in the repository



Then, I tried with a directory named assignment containing a file

```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE

PS C:\Users\Himanshu\Desktop\New folder> git add .
PS C:\Users\Himanshu\Desktop\New folder> git commit -m "comitted"
[master 2dd5ea5] comitted
 1 file changed, 14 insertions(+)
 create mode 100644 Assignments/index.html
PS C:\Users\Himanshu\Desktop\New folder> git push -u origin master
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (2/2), 266 bytes | 44.00 KiB/s, done.
Total 2 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/himbai19/freshersbatch-oct21.git
 28cb557..2dd5ea5  master -> master
Branch 'master' set up to track remote branch 'master' from 'origin'.
PS C:\Users\Himanshu\Desktop\New folder> █
```

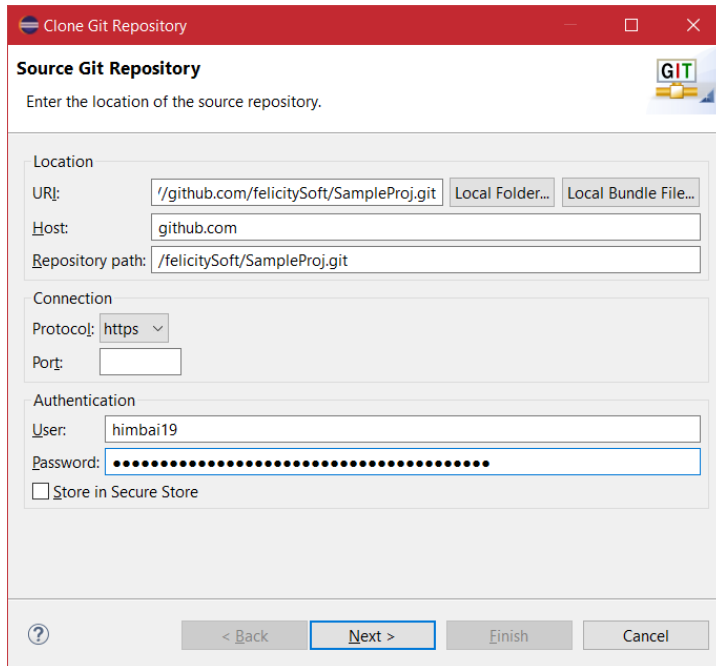
After the execution of the push command the directory with file were uploaded successfully.

The screenshot shows the GitHub interface for the repository 'himbai19 / freshersbatch-oct21'. The repository is public. The main navigation bar includes links for Code, Issues, Pull requests, Actions, Projects, Wiki, Security, Insights, and Settings. Below the navigation bar, there are buttons for 'Go to file', 'Add file', and 'Code'. The repository status shows 'master' branch with 1 branch and 0 tags. A commit by 'Himanshu' is displayed, titled 'comitted' (note the typo), with commit hash '2dd5ea5' and a timestamp of '2 minutes ago'. The commit details show two files: 'Assignments' (comitted, 2 minutes ago) and 'index.html' (commit, 16 minutes ago).

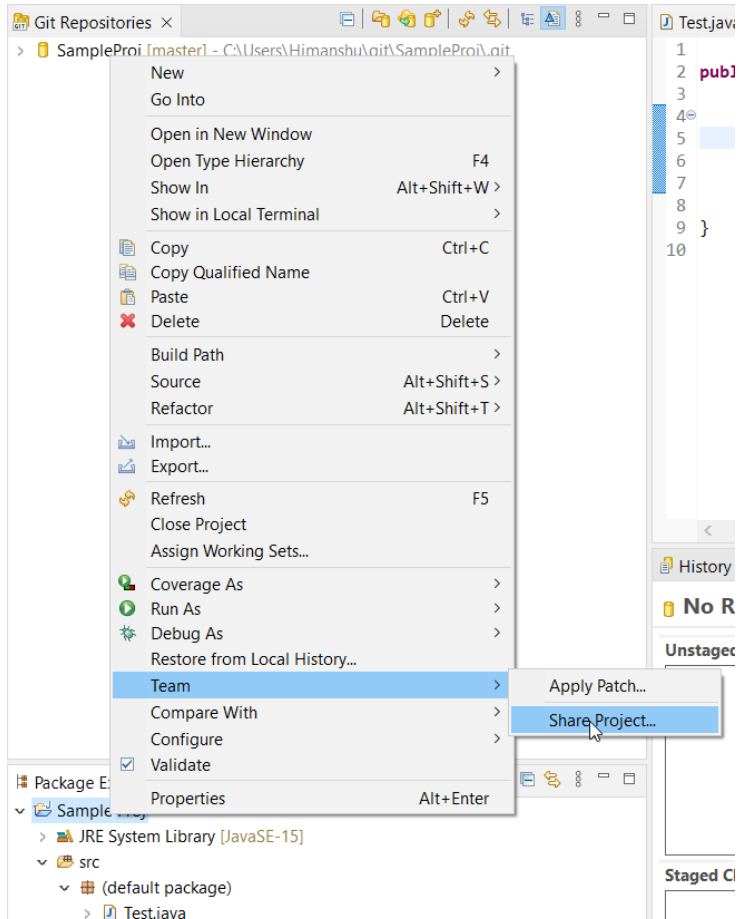
## SECTION-4 (Pushing source code to remote repository using Eclipse GIT plugin) - Steps to follow:

1. One developer from project team will create eclipse projects 'SampleProj' & add sample source code files. Then commit all files through eclipse GIT plugin.

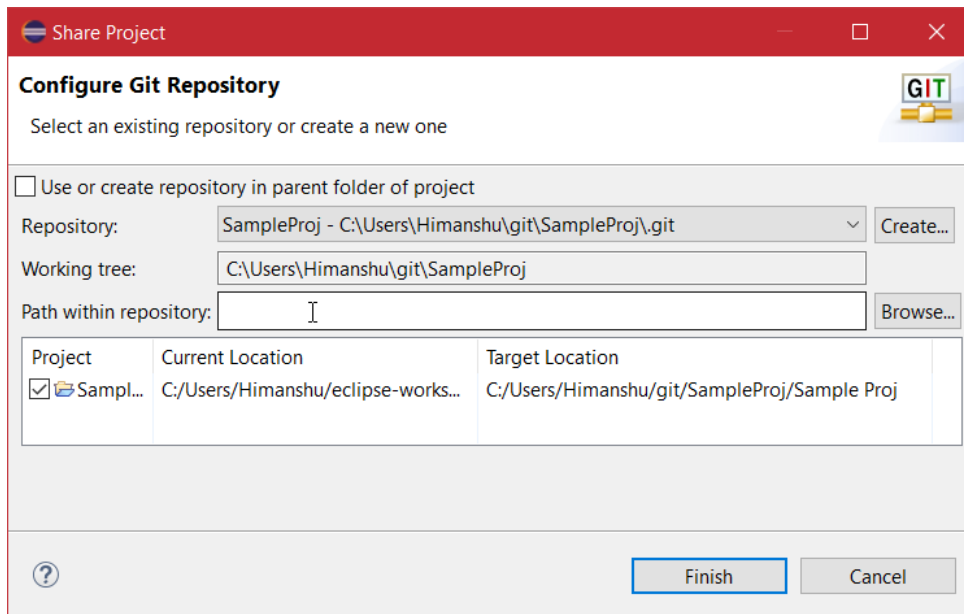
After creating the project, the first step is to clone a repository by giving the GitHub repository link.



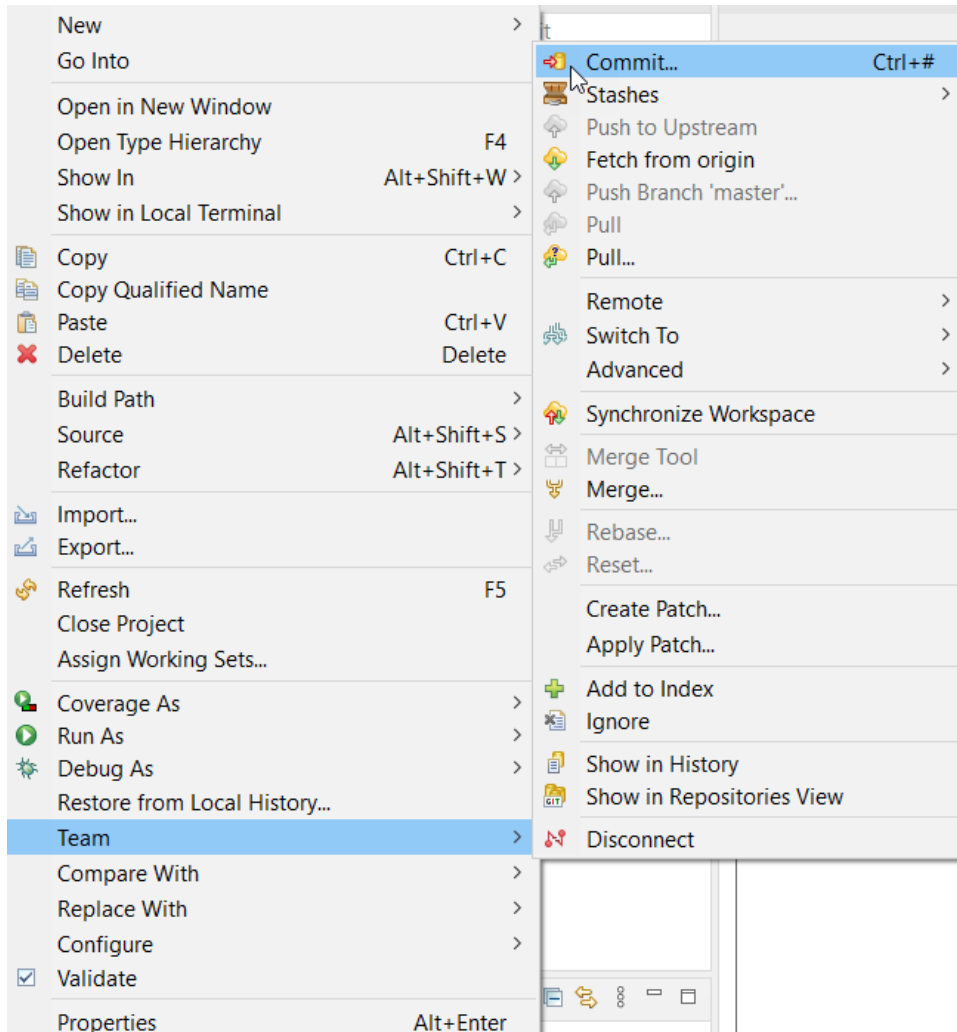
After the cloning process is done, right click on the project and share the project depicted in the below snapshot.



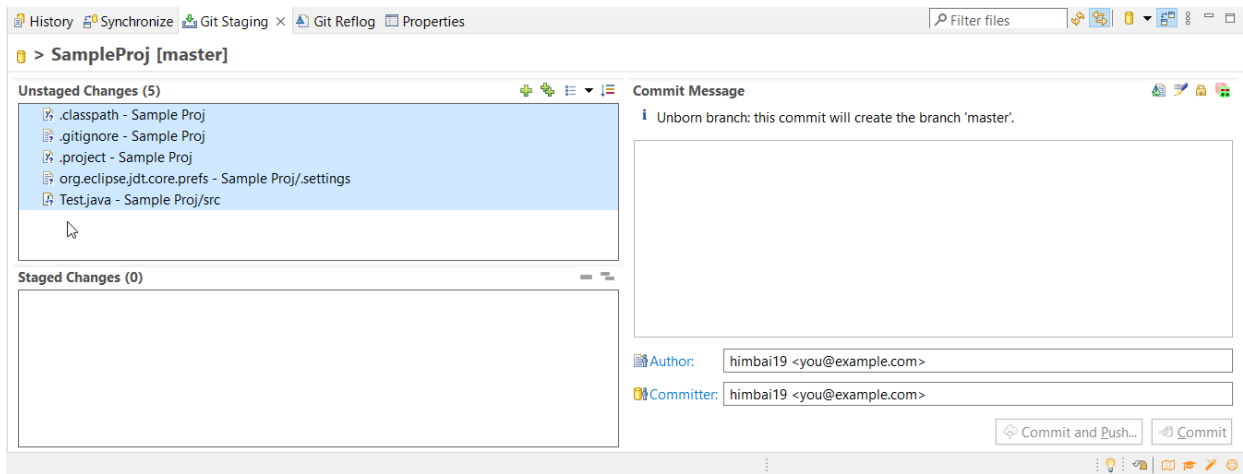
A window will ask to configure the repository for the project.



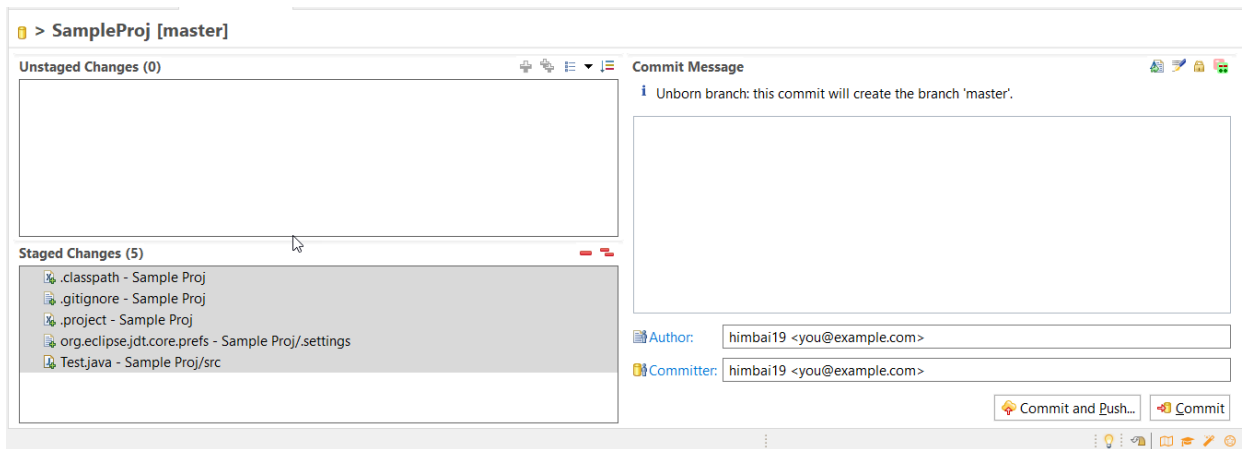
After configuring, now we can again right click on the project and click on the commit option.



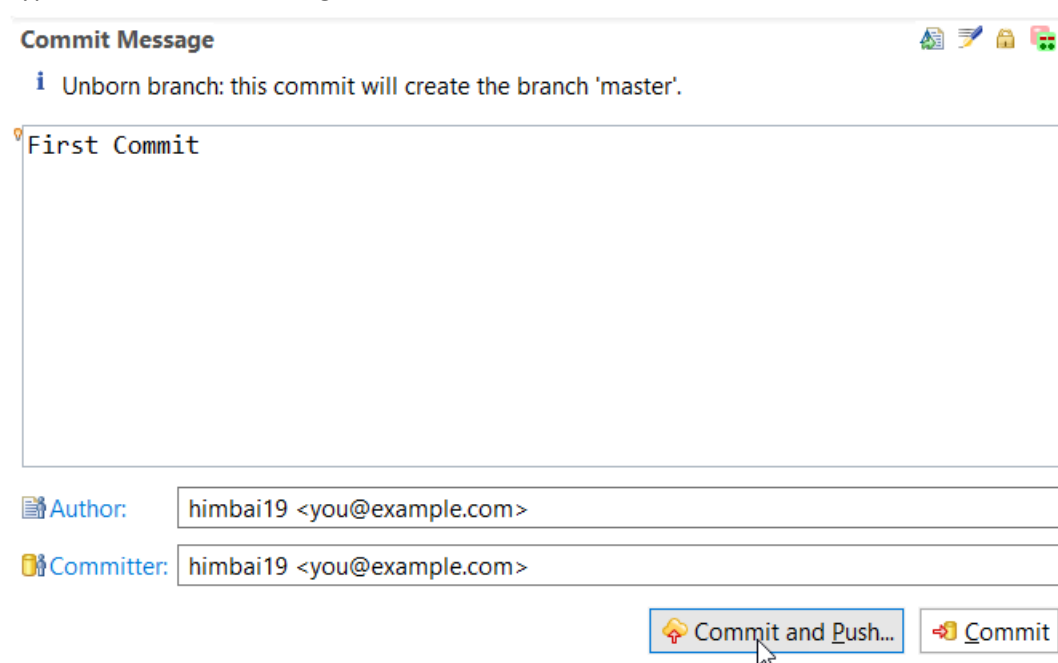
The files will popup in the unstaged area.



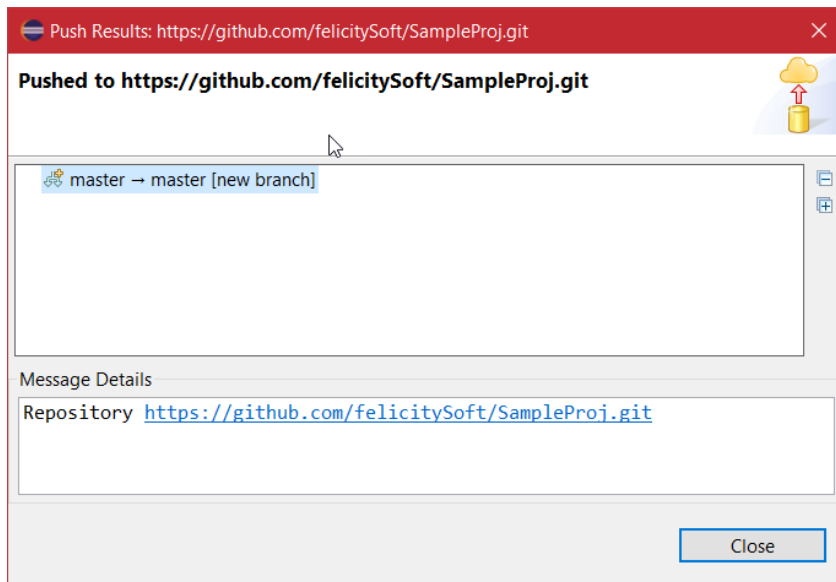
Select all, then drag and drop to the staged changes.



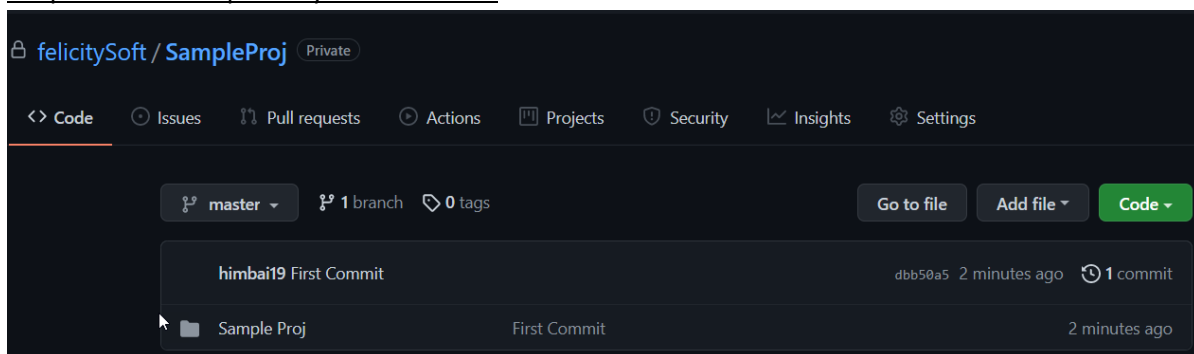
Type in the commit message and click on Commit and Push.



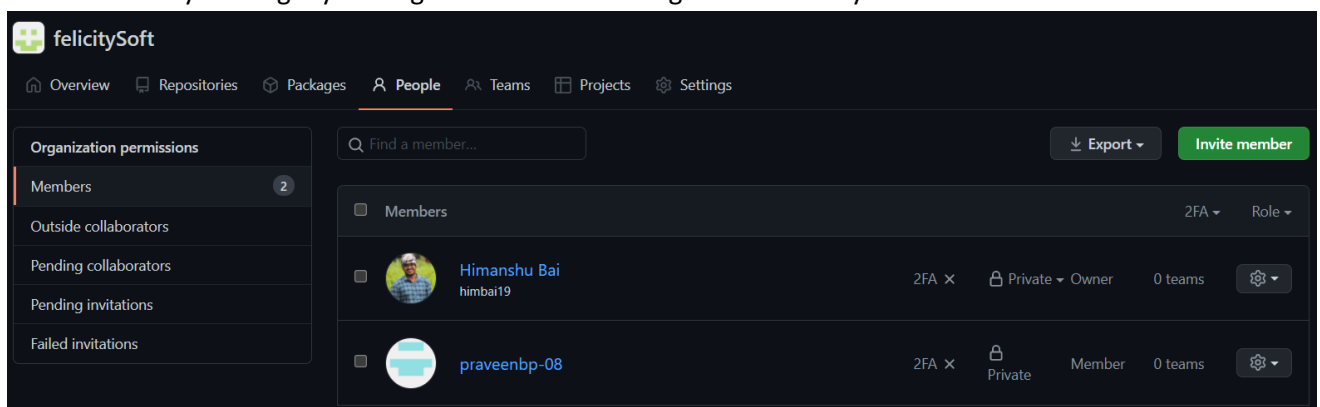
After the authentication process, the files will be pushed to the repository.



Snapshot of the repository in the GitHub.



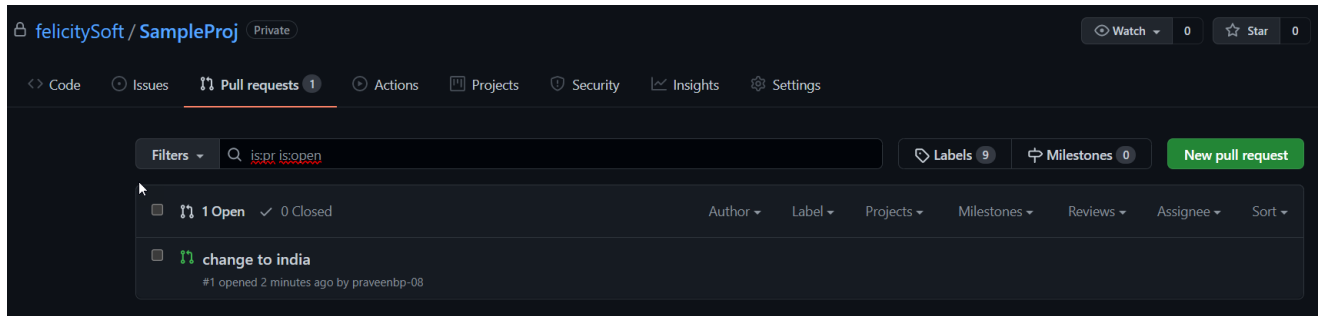
2. Collaborate other team members with your github account so that they can also modify the committed files. Collaborated by inviting my colleague Praveen to the organization in my GitHub account.



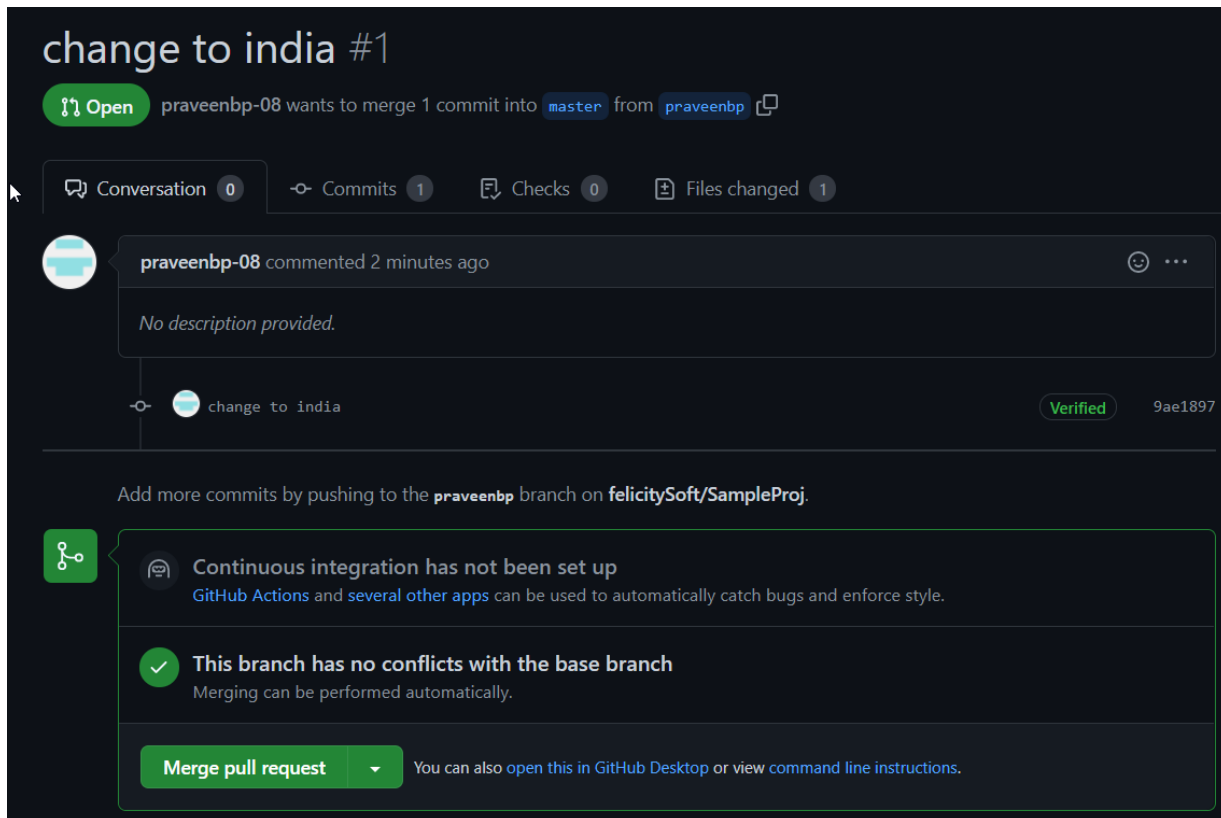


3. Other developers from same team will checkout all files from remote repository. This might get conflicts since certain files fail to merge. In such case, merge it manually.

My team member changed the code and committed and asked for a pull request. And the same was notified to me.



So, there were no conflicts between the branch, so I merged the pull request to the master branch.



Snapshot of confirming the merge.



#### 4. Commit & push the 'SampleProj' project.

Pull request was successfully merged and closed, after that we have the option of reverting the changes or deleting the branch.

