

Install GIT & make sure it is added into PATH.

Section 0 -Use GIT as local VCS. Steps to follow:

1. Create a directory 'project\_dir' & cd to 'project\_dir'.
2. Initialize git version database. (git init)
3. Create a new file index.html.
4. Check the git status. You should find index.html as untracked file.
5. Stage the index.html file.
6. Commit index.html
7. Make few changes in index.html & create a new file info.txt file.
8. Check git status. You should find index.html & info.txt as untracked files.
9. Configure GIT to ignore all txt files.
10. Again check the git status. You should find only index.html as untracked file.
11. State & commit index.html
12. Log all your comments so far.
13. Make some changes in index.html.
14. Revert the change made in the previous step using git command.
15. Again change index.html.
16. Stage index.html
17. Revert back the last stage.
18. Rename 'add' command to 'my-add'.
19. Using my\_add command Stage index.html again & commit the changes.
- 20.
21. Revert the last commi

```
MINGW64/c/Users/Pratiksha/desktop/project_dir
Pratiksha@LAPTOP-V6QATN8G MINGW64 ~
$ cd desktop
Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop
$ mkdir project_dir
Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop
$ cd project_dir
Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/project_dir
$ git init
Initialized empty Git repository in C:/Users/Pratiksha/Desktop/project_dir/.git/
Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/project_dir (master)
$ touch index.html
Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/project_dir (master)
$ 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)
Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/project_dir (master)
$ git add index.html
Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/project_dir (master)
$ git commit -m "Creating empty html file."
[master (root-commit) 334b846] Creating empty html file.
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 index.html
Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/project_dir (master)
$ 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")
Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/project_dir (master)
$ touch .gitignore
```



```
MINGW64:/c/Users/Pratiksha/desktop/project_dir
Revert "Commit after renaming the add command"

This reverts commit 0876939b68e515088efbb57656f3a4d953b7df50.

# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
#
# On branch master
# Changes to be committed:
#   modified:   index.html
#
# Untracked files:
#   .gitignore
#
```

## *GIT Branching*

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

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

22. First take a backup of your assignments & projects. This is required because due to incorrect GIT operation you may lose your files.
23. Create an empty directory 'Assignments' & cd to 'Assignments'.
24. Create a file README.txt inside 'Assignments' & write few lines about the contents of 'Assignments' folder.
25. Commit README.txt file.
26. Now create a new branch 'html-assignments'.
27. Switch to 'html-assignments' branch.
28. Copy all HTML assignments inside 'Assignments' folder.
29. Commit HTML assignments into 'html-assignments' branch.
30. Make minor changes into few files belonging to 'html-assignments' branch.
31. Commit those changed files.
32. Switch to master branch.
33. Make minor changes into README.txt file & commit those changes into master.
34. Again switch to 'html-assignments' branch.
35. Make minor changes into few files belonging to 'html-assignments' branch.
36. Commit those changes.
37. Switch to master.
38. Merge 'html-assignments' branch into master. Confirm all html assignments are shown in master.
39. Finally delete the 'html-assignments' branch.

```

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~
$ cd desktop

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop
$ mkdir Assignments

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop
$ cd Assignments

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/Assignments
$ git init
Initialized empty Git repository in C:/Users/Pratiksha/Desktop/Assignments/.git/

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/Assignments (master)
$ touch README.txt

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/Assignments (master)
$ git add README.txt

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/Assignments (master)
$ |

```

```

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/Assignments (master)
$ git branch html-assignments
fatal: not a valid object name: 'master'

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/Assignments (master)
$ git commit -m "Create README file"
[master (root-commit) 591e4a7] Create README file
1 file changed, 1 insertion(+)
create mode 100644 README.txt

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/Assignments (master)
$ git branch html-assignments

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/Assignments (master)
$ git branch
  html-assignments
* master

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/Assignments (master)
$ git checkout html-assignments
Switched to branch 'html-assignments'

```

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Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/Assignments (html-assignments)
$ git checkout master C:/users/pratiksha/desktop/assignments
Updated 0 paths from aedb7f

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/Assignments (html-assignments)
$

```

```

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/Assignments (html-assignments)
$ git commit -m "Changes made in index.html file in html-assignment folder"
On branch html-assignments
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    vscode/
    index.html

nothing added to commit but untracked files present (use "git add" to track)

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/Assignments (html-assignments)
$ git checkout master
Switched to branch 'master'

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/Assignments (master)
$ git commit -m "Changes in README file"
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:   README.txt

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

no changes added to commit (use "git add" and/or "git commit -a")

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/Assignments (master)
$ git checkout html-assignments
bash: git: command not found

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/Assignments (master)
$ git checkout html-assignments
Switched to branch 'html-assignments'
M   README.txt

```



```

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/Assignments (html-assignments)
$ git commit -m "2nd time made changes in html-assignment file."
On branch html-assignments
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:   README.txt

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

no changes added to commit (use "git add" and/or "git commit -a")

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/Assignments (html-assignments)
$ git checkout master
Switched to branch 'master'
M   README.txt

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/Assignments (master)
$ git merge html-assignments
Already up to date.

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/Assignments (master)
$ git branch -d html-assignments
Deleted branch html-assignments (was 591e4a7).

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/Assignments (master)
$

```

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

1. Create a new branch 'css-assignments'.
2. Switch to 'css-assignments' branch.
3. Copy all CSS assignments inside 'Assignments' folder.
4. Commit CSS assignments into 'css-assignments' branch.
5. Make minor changes into README.txt file on line 1 belonging to 'css-assignments' branch.
6. Commit those changed files.
7. Switch to master branch.
8. Make minor changes into README.txt file on line 3 & commit those changes into master.
9. Again switch to 'css-assignments' branch.
10. Make minor changes into few files belonging to 'css-assignments' branch.
11. Commit those changes.
12. Switch to master.
13. Merge 'css-assignments' branch into master. Confirm all css assignments are shown in master.
14. Finally delete the 'css-assignments' branch.

MINGW64:/c/Users/Pratiksha/desktop/assignments

```
Pratiksha@LAPTOP-V6QATN8G MINGW64 ~
$ cd desktop/assignments

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (master)
$ touch style.css

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (master)
$ git checkout -b css-assignments
Switched to a new branch 'css-assignments'

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (css-assignments)
$ git checkout master c:/users/pratiksha/desktop/assignments/styles.css
error: pathspec 'c:/users/pratiksha/desktop/assignments/styles.css' did not match
any file(s) known to git

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (css-assignments)
$ git checkout master c:/users/pratiksha/desktop/assignments/style.css
error: pathspec 'c:/users/pratiksha/desktop/assignments/style.css' did not match
any file(s) known to git

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (css-assignments)
$ git checkout master c:/users/pratiksha/desktop/assignments
Updated 1 path from aeddb7f

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (css-assignments)
$ git commit -m "Changes in css file in css-assignment branch"
On branch css-assignments
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    index.html
    style.css

nothing added to commit but untracked files present (use "git add" to track)

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (css-assignments)
$ git log
commit 591e4a782087576845b24c6622c673fcb059135e (HEAD -> css-assignments, master
, hello)
Author: Pratiksha Kalokhe <kalokhepratiksha5050@gmail.com>
Date: Sat Oct 7 11:00:03 2023 +0530

    Create README file

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (css-assignments)
$ git status
On branch css-assignments
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:   README.txt

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

no changes added to commit (use "git add" and/or "git commit -a")
```

MINGW64:/c/Users/Pratiksha/desktop/assignments

```
Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (css-assignments)
$ git commit -m "Changes in Readme file in css-assignment"
On branch css-assignments
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:   README.txt

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

no changes added to commit (use "git add" and/or "git commit -a")

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (css-assignments)
$ git checkout master
Switched to branch 'master'
M   README.txt

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (master)
$ git commit -m "Changes in Readme file in master"
On branch css-assignments
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:   README.txt

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

no changes added to commit (use "git add" and/or "git commit -a")

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (css-assignments)
$ git checkout css-assignments
Already on 'css-assignments'
M   README.txt

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (css-assignments)
$ git commit -m "Changes in css files in css-assignment ranch"
On branch css-assignments
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:   README.txt

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

no changes added to commit (use "git add" and/or "git commit -a")

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (css-assignments)
$ git checkout master
```

```
Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (css-assignments)
$ git checkout master
Switched to branch 'master'
M    README.txt

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (master)
$ git merge css-assignments
Already up to date.

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (master)
$ git branch -d css-assignments
Deleted branch css-assignments (was 591e4a7).

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (master)
$
```

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

1. Create a new branch 'js-assignments'.
2. Switch to 'js-assignments' branch.
3. Copy all JavaScript assignments inside 'Assignments' folder.
4. Commit JavaScript assignments into 'js-assignments' branch.
5. Make minor changes into README.txt file on line 1 belonging to 'js-assignments' branch.
6. Commit those changed files.
7. Switch to master branch.
8. Make minor changes into README.txt file on line 1 & commit those changes into master.
9. Again switch to 'js-assignments' branch.
10. Make minor changes into few files belonging to 'js-assignments' branch.
11. Commit those changes.
12. Switch to master.
13. Merge 'js-assignments' branch into master. Confirm all JavaScript assignments are shown in master.
14. Finally delete the 'js-assignments' branch.



MINGW64:/c/Users/Pratiksha/desktop/assignments

```
Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (master)
$ git branch js-assignments

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (master)
$ git checkout js-assignments
Switched to branch 'js-assignments'
M   README.txt

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (js-assignments)
$ git checkout master c:/users/pratiksha/desktop/assignments
Updated 1 path from aaedb7f

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (js-assignments)
$ git commit -m "Coping files from master to js-assignments"
On branch js-assignments
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        index.html
        java.js
        style.css

nothing added to commit but untracked files present (use "git add" to track)

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (js-assignments)
$ git checkout master c:/users/pratiksha/desktop/assignments/README.txt
Updated 1 path from aaedb7f

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (js-assignments)
$ git commit -m "Coping files from master to js-assignments"
On branch js-assignments
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        index.html
        java.js
        style.css

nothing added to commit but untracked files present (use "git add" to track)

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (js-assignments)
$ git commit -m "Making chnages in Readme file from js-assignment file"
On branch js-assignments
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:   README.txt

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

no changes added to commit (use "git add" and/or "git commit -a")

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (js-assignments)
$ git checkout master
Switched to branch 'master'
```

MINGW64:/c/Users/Pratiksha/desktop/assignments

```
Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (js-assignments)
$ git checkout master
Switched to branch 'master'
M   README.txt

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (master)
$ git commit -m "Making chnages in Readme file from master"
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:   README.txt

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

no changes added to commit (use "git add" and/or "git commit -a")

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (master)
$ git checkout js-assignments
Switched to branch 'js-assignments'
M   README.txt

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (js-assignments)
$ git commit -m "Making chnages in js file from js-assignment"
On branch js-assignments
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:   README.txt

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

no changes added to commit (use "git add" and/or "git commit -a")

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (js-assignments)
$ git checkout master
Switched to branch 'master'
M   README.txt

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (master)
$ git checkout js-assignments
Switched to branch 'js-assignments'
M   README.txt

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (js-assignments)
$ touch javascriptt.js

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (js-assignments)
$ git commit -m "Making chnages in javascriptt.js file From js-assignment"
```



```

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (js-assignments)
$ git commit -m "Making chnages in javascriptt.js file from js-assignment"
On branch js-assignments
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:   README.txt

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

no changes added to commit (use "git add" and/or "git commit -a")

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (js-assignments)
$ git checkout master
Switched to branch 'master'
M   README.txt

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (master)
$ git merge js-assignments
Already up to date.

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (master)
$ git branch -d js-assignments
Deleted branch js-assignments (was 591e4a7).

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (master)
$

```

## *GIT Remoting*

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

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

40. Create a github account if you do not have already.
41. Login on into github account.
42. Create new public repository 'freshersbatch-oct16'.
43. Commit & push any sample file to this repository under 'Assignments' directory.

```

MINGW64:/c/Users/Pratiksha/desktop/assignments

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~
$ cd desktop

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop (new)
$ cd assignments

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (master)
$ git init
Reinitialized existing Git repository in C:/Users/Pratiksha/Desktop/Assignments/.git/

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (master)
$ git add .

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (master)
$ git commit -m "Initial commit"
On branch master
nothing to commit, working tree clean

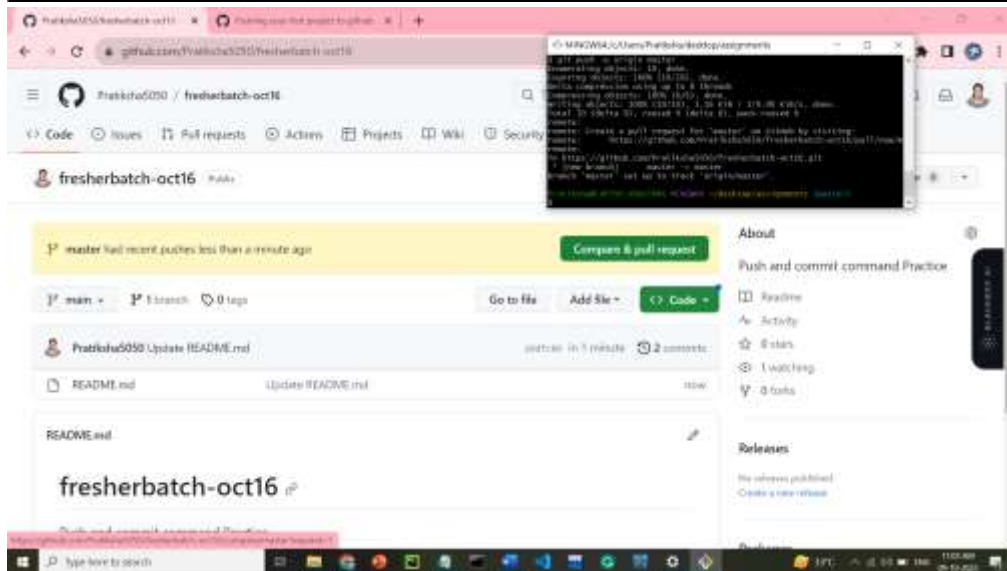
Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (master)
$ git remote add origin https://github.com/Pratiksha5050/freshersbatch-oct16.git
error: remote origin already exists.

```

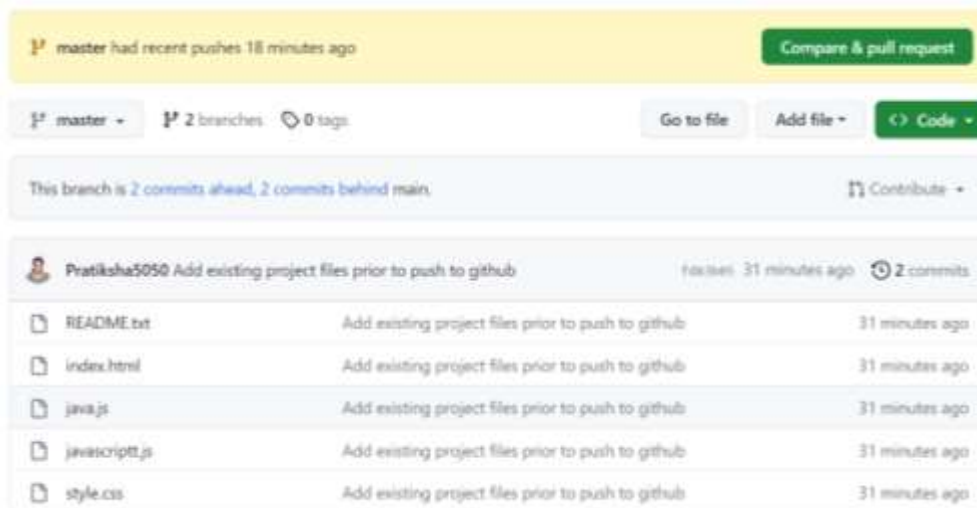
```

Pratiksha@LAPTOP-V6QATN8G MINGW64 ~/desktop/assignments (master)
$ git push -u origin master
Enumerating objects: 10, done.
Counting objects: 100% (10/10), done.
Delta compression using up to 8 threads
Compressing objects: 100% (6/6), done.
Writing objects: 100% (10/10), 1.16 KiB | 170.00 KiB/s, done.
Total 10 (delta 0), reused 0 (delta 0), pack-reused 0
remote:
remote: Create a pull request for 'master' on GitHub by visiting:
remote:   https://github.com/Pratiksha5050/fresherbatch-oct16/pull/new/master
remote:
To https://github.com/Pratiksha5050/fresherbatch-oct16.git
 * [new branch]      master -> master
branch 'master' set up to track 'origin/master'.

```



After changing branch from main to master



#### 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.
2. Collaborate other team members with your github account so that they can also modify the committed files.

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