1. Create a directory 'project_dir' & cd to 'project_dir'.

```
USER@HP MINGW64 ~
$ mkdir project_dir
USER@HP MINGW64 ~
$ cd project_dir
```

2. Initialize git version database. (git init)

```
USER@HP MINGW64 ~/project_dir
$ git init
Initialized empty Git repository in C:/Users/USER/project_dir/.git/
```

3. Create a new file index.html.

```
USER@HP MINGW64 ~/project_dir (master)
$ touch index.html
```

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

```
USER@HP MINGW64 ~/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)
```

5. Stage the index.html file.

```
USER@HP MINGW64 ~/project_dir (master)
$ git add index.html
```

6. Commit index.html

```
USER@HP MINGW64 ~/project_dir (master)
$ git commit -m "created index.html"
[master (root-commit) 047ba52] created index.html
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 index.html
```

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

```
USER@HP MINGW64 ~/project_dir (master)
$ vi index.html
```

```
<html>
<body>
<h1>My First Heading</h1>
</body>
</html>

--
index.html[+] [unix] (13:01 20/01/2022)
-- INSERT --
```

```
USER@HP MINGW64 ~/project_dir (master)
$ touch info.txt
```

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

```
USER@HP MINGW64 ~/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")
```

9. Configure GIT to ignore all txt files.

```
USER@HP MINGW64 ~/project_dir (master)
$ touch .gitignore
```

```
USER@HP MINGW64 ~/project_dir (master)
$ vi .gitignore|
```

```
*.txt
~
~
~
~
.gitignore[+] [unix] (13:36 20/01/2022)
-- INSERT --
```

```
USER@HP MINGW64 ~/project_dir (master)
$ git add .gitignore
warning: LF will be replaced by CRLF in .gitignore.
The file will have its original line endings in your working directory
```

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

11. State & commit index.html

```
USER@HP MINGW64 ~/project_dir (master)
$ git add index.html; git commit -m "added first heading"
warning: LF will be replaced by CRLF in index.html.
The file will have its original line endings in your working directory
[master 07c3af9] added first heading
2 files changed, 8 insertions(+)
create mode 100644 .gitignore
```

12. Log all your comments so far.

```
USER@HP MINGW64 ~/project_dir (master)

$ git log
commit 07c3af93b262094006cf9cdfbc98c7ce34aa9408 (HEAD -> master)
Author: Anirban7857 <mailtoani.1203940@gmail.com>
Date: Thu Jan 20 13:58:15 2022 +0530

added first heading

commit 047ba529450b654d88269f3eb8fd12f4daceb2a3
Author: Anirban7857 <mailtoani.1203940@gmail.com>
Date: Thu Jan 20 13:14:19 2022 +0530

created index.html
```

13. Make some changes in index.html.

```
USER@HP MINGW64 ~/project_dir (master)
$ cat index.html
<html>
<body>
<h1>My First Heading</h1>
</body>
</html>
```

```
USER@HP MINGW64 ~/project_dir (master)
$ vi index.html
```

```
<html>
<body>
<h1>My First Heading</h1>
<h1>My Second Heading</h1>
</body>
</html>

--
index.html[+] [unix] (13:28 20/01/2022)
-- INSERT --
```

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

15. Again change index.html.

```
USER@HP MINGW64 ~/project_dir (master)
$ vi index.html
```

```
<html>
<body>
<h1>My First Heading</h1>
<h2>My Second Heading</h2>
</body>
</body>
</html>
~

index.html[+] [dos] (14:22 20/01/2022)
-- INSERT --
```

16. Stage index.html

17. Revert back the last stage.

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

```
USER@HP MINGW64 ~/project_dir (master)
$ git config --global alias.my-add add
```

19. Using my_add command Stage index.html again & commit the changes.

```
USER@HP MINGW64 ~/project_dir (master)
$ git my-add index.html; git commit -m "added second heading"
[master 3692a78] added second heading
1 file changed, 1 insertion(+)
```

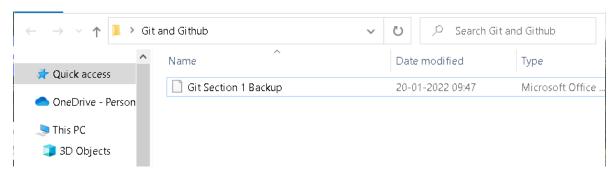
20. Revert the last commit.

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.



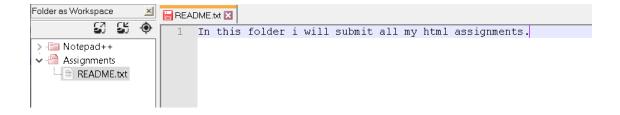
22. Create an empty directory 'Assignments' & cd to 'Assignments'.

```
USER@HP MINGW64 ~
$ mkdir Assignments
USER@HP MINGW64 ~
$ cd Assignments
```

```
USER@HP MINGW64 ~/Assignments
$ git init
Initialized empty Git repository in C:/Users/USER/Assignments/.git/
```

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

```
USER@HP MINGW64 ~/Assignments
$ touch README.txt
```



24. Commit README.txt file.

```
USER@HP MINGW64 ~/Assignments (master)
$ git add README.txt ; git commit -m "created README.txt file"
[master (root-commit) 5457199] created README.txt file
1 file changed, 1 insertion(+)
create mode 100644 README.txt
```

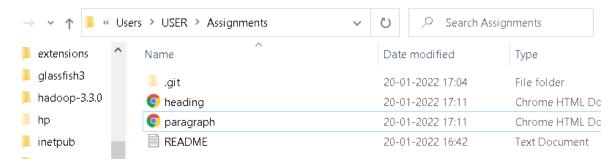
25. Now create a new branch 'html-assignments'.

```
USER@HP MINGW64 ~/Assignments (master)
$ git branch html-assignments
```

26. Switch to 'html-assignments' branch.

```
USER@HP MINGW64 ~/Assignments (master)
$ git checkout html-assignments
Switched to branch 'html-assignments'
```

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



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

```
USER@HP MINGW64 ~/Assignments (html-assignments)

$ git status
On branch html-assignments
Untracked files:
    (use "git add <file>..." to include in what will be committed)
        heading.html
        paragraph.html

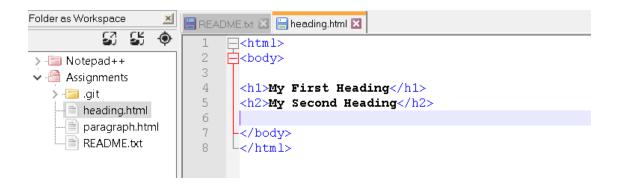
nothing added to commit but untracked files present (use "git add" to track)

USER@HP MINGW64 ~/Assignments (html-assignments)

$ git add . ; git commit -m "added all html-assignments"
[html-assignments b91a435] added all html-assignments
2 files changed, 14 insertions(+)
    create mode 100644 heading.html
    create mode 100644 paragraph.html
```

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

```
USER@HP MINGW64 ~/Assignments (html-assignments)
$ cat heading.html
<html>
<body>
<h1>My First Heading</h1>
</body>
</html>
```



30. Commit those changed files.

```
USER@HP MINGW64 ~/Assignments (html-assignments)

$ git status
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: heading.html

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

USER@HP MINGW64 ~/Assignments (html-assignments)

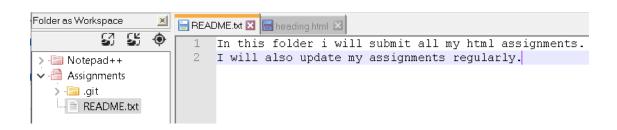
$ git add . ; git commit -m "added all modified html-assignments"
[html-assignments 1b62710] added all modified html-assignments
1 file changed, 1 insertion(+)
```

31. Switch to master branch.

```
USER@HP MINGW64 ~/Assignments (html-assignments)
$ git checkout master
Switched to branch 'master'
```

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

```
USER@HP MINGW64 ~/Assignments (master)
$ cat README.txt
Here i will submit all my html assignments.
```



```
USER@HP MINGw64 ~/Assignments (master)
$ git add README.txt ; git commit -m "modified README.txt file|"
[master f7f3ce7] modified README.txt file
1 file changed, 2 insertions(+), 1 deletion(-)
```

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

```
USER@HP MINGW64 ~/Assignments (master)
$ git checkout html-assignments
Switched to branch 'html-assignments'
```

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



35. Commit those changes.

```
USER@HP MINGW64 ~/Assignments (html-assignments)

$ git status
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: paragraph.html

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

USER@HP MINGW64 ~/Assignments (html-assignments)

$ git add . ; git commit -m "modified paragraph.html"
[html-assignments 262571d] modified paragraph.html

1 file changed, 1 insertion(+)
```

36. Switch to master.

```
USER@HP MINGW64 ~/Assignments (html-assignments)
$ git checkout master
Switched to branch 'master'
```

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

```
USER@HP MINGW64 ~/Assignments

$ git merge html-assignments

Merge made by the 'ort' strategy.

heading.html | 8 +++++++

paragraph.html | 8 +++++++

2 files changed, 16 insertions(+)

create mode 100644 heading.html

create mode 100644 paragraph.html
```

```
USER@HP MINGW64 ~/Assignments (master)

$ git log --all --decorate --oneline --graph

* b4f1984 (HEAD -> master) Merge branch 'html-assignments'

| * 262571d (html-assignments) modified paragraph.html

| * 1b62710 added all modified html-assignments

| * b91a435 added all html-assignments

* | f7f3ce7 modified README.txt file

|/

* 5457199 created README.txt file

USER@HP MINGW64 ~/Assignments (master)

$ git ls-files

README.txt
heading.html
paragraph.html
```

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

```
USER@HP MINGW64 ~/Assignments (master)

$ git branch -d html-assignments
Deleted branch html-assignments (was 262571d).

USER@HP MINGW64 ~/Assignments (master)

$ git log --all --decorate --oneline --graph

* b4f1984 (HEAD -> master) Merge branch 'html-assignments'

| * 262571d modified paragraph.html
| * 1b62710 added all modified html-assignments
| * b91a435 added all html-assignments
* | f7f3ce7 modified README.txt file

|/

* 5457199 created README.txt file
```

<u>SECTION-2 - (CSS assignments) Steps to follow:</u>

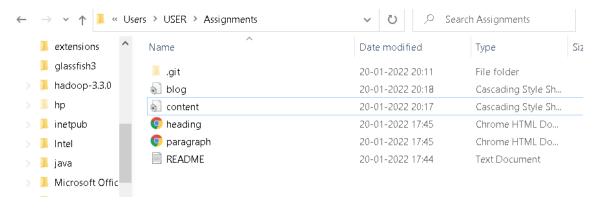
1. Create a new branch 'css-assignments'.

```
USER@HP MINGW64 ~/Assignments (master)
$ git branch css-assignments
```

2. Switch to 'css-assignments' branch.

```
USER@HP MINGW64 ~/Assignments (master)
$ git checkout css-assignments
Switched to branch 'css-assignments'
```

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



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

```
USER@HP MINGW64 ~/Assignments (css-assignments)
$ git add . ; git commit -m "committed all css files"
[css-assignments a9358cd] committed all css files
2 files changed, 31 insertions(+)
create mode 100644 blog.css
create mode 100644 content.css
```

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

```
USER@HP MINGW64 ~/Assignments (css-assignments)
$ cat README.txt
In this folder i will submit all my html assignments.
I will also update my assignments regularly.
```

```
USER@HP MINGW64 ~/Assignments (css-assignments)
$ vi README.txt
```

```
In this folder i will submit all my html and css assignments.
I will also update my assignments regularly.
~
~
~
~
~
README.txt[+] [dos] (17:44 20/01/2022)
-- INSERT --
```

6. Commit those changed files.

7. Switch to master branch.

```
USER@HP MINGW64 ~/Assignments (css-assignments)
$ git checkout master
Switched to branch 'master'
```

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

```
USER@HP MINGW64 ~/Assignments (master)
$ cat README.txt
In this folder i will submit all my html assignments.
I will also update my assignments regularly.
USER@HP MINGW64 ~/Assignments (master)
$ vi README.txt
```

```
In this folder i will submit all my html assignments.
I will also update my assignments regularly.
I promise to complete all assignments in time.|
~
~
~
~
~
README.txt[+] [dos] (20:38 20/01/2022)
-- INSERT --
```

```
USER@HP MINGW64 ~/Assignments (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: README.txt

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

USER@HP MINGW64 ~/Assignments (master)

$ git add README.txt; git commit -m "modified 3rd line in README.txt"

[master eb62933] modified 3rd line in README.txt
1 file changed, 2 insertions(+), 1 deletion(-)
```

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

```
USER@HP MINGW64 ~/Assignments (master)
$ git checkout css-assignments
Switched to branch 'css-assignments'
```

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

```
USER@HP MINGW64 ~/Assignments (css-assignments)
$ cat blog.css
<html>
<head>
<style>
p {
  color: red;
  text-align: center;
</style>
</head>
<body>
Blog
</body>
</html>
USER@HP MINGW64 ~/Assignments (css-assignments)
$ vi blog.css
```

11. Commit those changes.

```
USER@HP MINGW64 ~/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: blog.css

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

USER@HP MINGW64 ~/Assignments (css-assignments)
$ git add blog.css ; git commit -m "modified blog.css "
[css-assignments ad35222] modified blog.css
1 file changed, 2 insertions(+), 1 deletion(-)
```

12. Switch to master.

```
USER@HP MINGW64 ~/Assignments (css-assignments)
$ git checkout master
Switched to branch 'master'
```

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

```
USER@HP MINGW64 ~/Assignments (master)

$ git merge css-assignments
Auto-merging README.txt
CONFLICT (content): Merge conflict in README.txt
Automatic merge failed; fix conflicts and then commit the result.

USER@HP MINGW64 ~/Assignments (master|MERGING)

$ git status
On branch master
You have unmerged paths.
    (fix conflicts and run "git commit")
    (use "git merge --abort" to abort the merge)

Changes to be committed:
    new file: blog.css
    new file: content.css

Unmerged paths:
    (use "git add <file>..." to mark resolution)
    both modified: README.txt

USER@HP MINGW64 ~/Assignments (master|MERGING)

$ vi README.txt|
```

```
<<<<<< HEAD
In this folder i will submit all my html assignments.
I will also update my assignments regularly.
I promise to complete all assignments in time.
======
In this folder i will submit all my html and css assignments.
I will also update my assignments regularly.
>>>>>> css-assignments
~
~
~
README.txt[+] [dos] (20:52 20/01/2022)
-- INSERT --
```

```
In this folder i will submit all my html and css assignments.
I will also update my assignments regularly.
I promise to complete all assignments in time.
|
~
~
~
~
~
~
~
~
README.txt[+] [dos] (20:52 20/01/2022)
-- INSERT --
```

```
Merge branch 'css-assignments'
# Conflicts:
        README.txt
# It looks like you may be committing a merge.
# If this is not correct, please run
        git update-ref -d MERGE_HEAD
# and try again.
# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
# On branch master
# All conflicts fixed but you are still merging.
# Changes to be committed:
                   README.txt
       modified:
       new file:
                    blog.css
C:/Users/USER/Assignments/.git/COMMIT_EDITMSG [unix] (21:08 20/01/2022)
```

```
JSER@HP MINGW64 ~/Assignments (master)
 git log --all --decorate --oneline --graph
    28b5bc0 (HEAD -> master) Merge branch 'css-assignments'
   ad35222 (css-assignments) modified blog.css
  * 933811c modified README.txt in css-assignments
   a9358cd committed all css files
   eb62933 modified 3rd line in README.txt
    b4f1984 Merge branch 'html-assignments'
  * 262571d modified paragraph.html
  * 1b62710 added all modified html-assignments
  * b91a435 added all html-assignments
  | f7f3ce7 modified README.txt file
 5457199 created README.txt file
USER@HP MINGW64 ~/Assignments (master)
|$ git ls-files
README.txt
blog.css
content.css
heading.html
paragraph.html
```

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

<u>SECTION-3 - (JavaScript assignments) Steps to follow:</u>

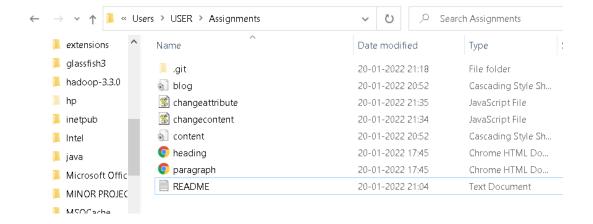
1. Create a new branch 'js-assignments'.

```
USER@HP MINGW64 ~/Assignments (master)
$ git branch js-assignments
```

2. Switch to 'js-assignments' branch.

```
USER@HP MINGW64 ~/Assignments (master)
$ git checkout js-assignments
Switched to branch 'js-assignments'
```

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



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

```
USER@HP MINGW64 ~/Assignments (js-assignments)
$ git add . ; git commit -m "committed all js files "
[js-assignments 16a0c32] committed all js files
2 files changed, 28 insertions(+)
create mode 100644 changeattribute.js
create mode 100644 changecontent.js
```

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

```
USER@HP MINGW64 ~/Assignments (js-assignments)
$ cat README.txt
In this folder i will submit all my html and css assignments.
I will also update my assignments regularly.
I promise to complete all assignments in time.

USER@HP MINGW64 ~/Assignments (js-assignments)
$ vi README.txt
```

```
In this folder i will submit all my html, css and js assignments.
I will also update my assignments regularly.
I promise to complete all assignments in time.
~
~
README.txt[+] [dos] (21:04 20/01/2022)
-- INSERT --
```

6. Commit those changed files.

```
USER@HP MINGW64 ~/Assignments (js-assignments)
$ git add README.txt ; git commit -m "changed line 1 in README.txt"
[js-assignments eba99e2] changed line 1 in README.txt
1 file changed, 1 insertion(+), 1 deletion(-)
```

7. Switch to master branch.

```
USER@HP MINGW64 ~/Assignments (js-assignments)
$ git checkout master
Switched to branch 'master'
```

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

```
USER@HP MINGW64 ~/Assignments (master)
$ cat README.txt
In this folder i will submit all my html and css assignments.
I will also update my assignments regularly.
I promise to complete all assignments in time.

USER@HP MINGW64 ~/Assignments (master)
$ vi README.txt
```

```
I have completed my html, css and js assignments.
I will also update my assignments regularly.
I promise to complete all assignments in time.
~
~
README.txt[+] [dos] (21:45 20/01/2022)
-- INSERT --
```

```
USER@HP MINGW64 ~/Assignments (master)

$ git add README.txt ; git commit -m "modified README.txt"

[master e3c5080] modified README.txt

1 file changed, 1 insertion(+), 1 deletion(-)
```

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

```
USER@HP MINGW64 ~/Assignments (master)
$ git checkout js-assignments
Switched to branch 'js-assignments'
```

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

```
USER@HP MINGW64 ~/Assignments (js-assignments)
$ cat changecontent.js
<html>
<body>
<h2>What Can JavaScript Do?</h2>

<pre
```

```
<html>
<body>
<htal>
<br/>
<br/>
<br/>
<h2>What Can JavaScript Do?</h2>
<h3>Let us find out</h3>
<br/>

cp id="demo">JavaScript can change HTML content.
<br/>
<button type="button" onclick='document.getElementById("demo").innerHTML = "Hello JavaScript!"'>Click Me!</button>
</body>
</html>

changecontent.js[+] [dos] (21:53 20/01/2022)
-- INSERT --
```

11. Commit those changes.

```
USER@HP MINGW64 ~/Assignments (js-assignments)
$ git add changecontent.js|; git commit -m "modified changecontent,js"
[js-assignments e1bc0d2] modified changecontent,js
1 file changed, 2 insertions(+), 1 deletion(-)
```

12. Switch to master.

```
USER@HP MINGW64 ~/Assignments (js-assignments)
$ git checkout master
Switched to branch 'master'
```

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

```
USER@HP MINGW64 ~/Assignments (master)
$ git merge js-assignments
Auto-merging README.txt
CONFLICT (content): Merge conflict in README.txt
Automatic merge failed; fix conflicts and then commit the result.

USER@HP MINGW64 ~/Assignments (master|MERGING)
$ vi README.txt
```

```
<<<<<< HEAD
I have completed my html, css and js assignments.
======
In this folder i will submit all my html, css and js assignments.
>>>>>> js-assignments
I will also update my assignments regularly.
I promise to complete all assignments in time.
~
~
~
~
~
~
~
~
README.txt [dos] (22:06 20/01/2022)
"README.txt" [dos] 8L, 261B
```

```
I have completed my html, css and js assignments.|
I will also update my assignments regularly.
I promise to complete all assignments in time.
~
~
~
~
README.txt[+] [dos] (22:06 20/01/2022)
-- INSERT --
```

```
USER@HP MINGW64 ~/Assignments (master|MERGING)
$ git add .
```

```
JSER@HP MINGW64 ~/Assignments (master|MERGING)
$ git commit
[master 9be93d2] Merge branch 'js-assignments'
JSER@HP MINGW64 ~/Assignments (master)
$ git log --all --decorate --oneline --graph
    9be93d2 (HEAD -> master) Merge branch 'js-assignments'
  * e1bc0d2 (js-assignments) modified changecontent, js
  * eba99e2 changed line 1 in README.txt
* 16a0c32 committed all js files
  | e3c5080 modified README.txt
    28b5bc0 Merge branch 'css-assignments'
  * ad35222 modified blog.css
  * 933811c modified README.txt in css-assignments
  * a9358cd committed all css files
    eb62933 modified 3rd line in README.txt
    b4f1984 Merge branch 'html-assignments'
  * 262571d modified paragraph.html
  * 1b62710 added all modified html-assignments
  * b91a435 added all html-assignments
  | f7f3ce7 modified README.txt file
  5457199 created README.txt file
USER@HP MINGW64 ~/Assignments (master)
$ git ls-files
README.txt
blog.css
changeattribute.js
changecontent.js
content.css
heading.html
paragraph.html
```

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

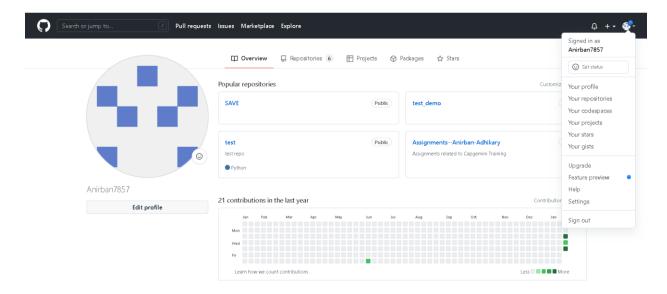
```
JSER@HP MINGW64 ~/Assignments (master)
$ git branch -d js-assignments
Deleted branch js-assignments (was e1bc0d2).
JSER@HP MINGW64 ~/Assignments (master)
 git log --all --decorate --oneline --graph
    9be93d2 (HEAD -> master) Merge branch 'js-assignments'
  * elbc0d2 modified changecontent, js
  * eba99e2 changed line 1 in README.txt
* 16a0c32 committed all js files
    e3c5080 modified README.txt
    28b5bc0 Merge branch 'css-assignments'
  * ad35222 modified blog.css
  * 933811c modified README.txt in css-assignments
  * a9358cd committed all css files
| eb62933 modified 3rd line in README.txt
    b4f1984 Merge branch 'html-assignments'
    262571d modified paragraph.html
    1b62710 added all modified html-assignments
  * b91a435 added all html-assignments
    f7f3ce7 modified README.txt file
  5457199 created README.txt file
```

GIT Remoting

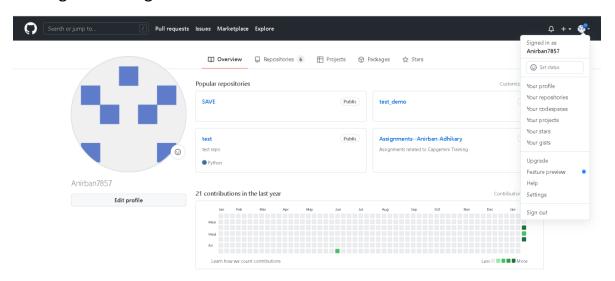
Objective: Pushing source code into GITHUB & collaborate team members.

SECTION-1 (Pushing assignments to remote repository) - Steps to follow:

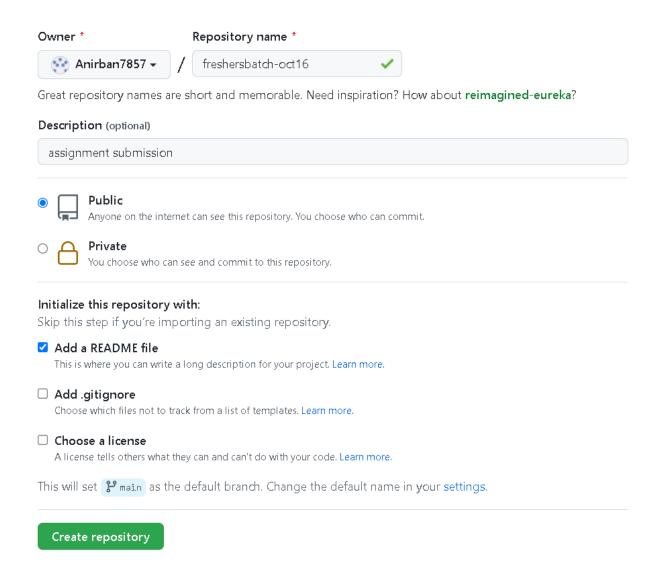
39. Create a github account if you do not have already.



40. Login on into github account.



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



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

```
USER@HP MINGW64 ~/Assignments (master)
$ git push --set-upstream origin master
Everything up-to-date
Branch 'master' set up to track remote branch 'master' from 'origin'.
```

