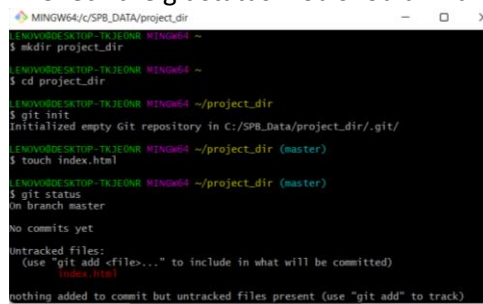


Assignment 1 Git & GitHub

Install GIT & make sure it is added into PATH.

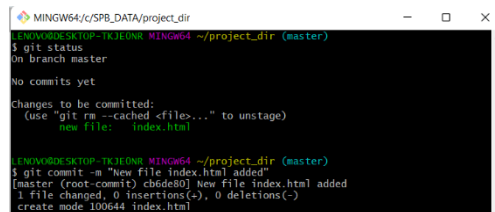
Use GIT as local VCS. Steps to follow:

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.



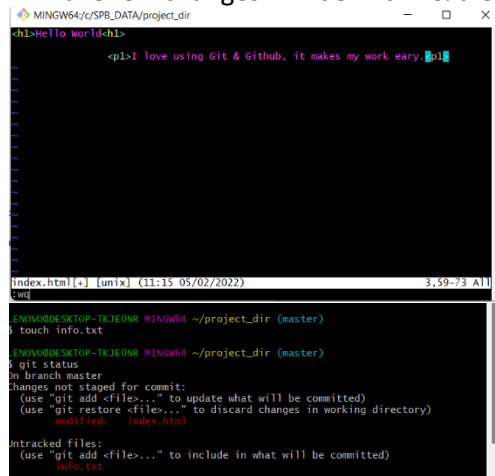
```
MINGW64/c/SPB_DATA/project_dir
$ mkdir project_dir
$ cd project_dir
$ git init
Initialized empty Git repository in C:/SPB_Data/project_dir/.git/
$ touch index.html
$ git status
On branch master
No commits yet
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        index.html
nothing added to commit but untracked files present (use "git add" to track)
```

5. Stage the index.html file.
6. Commit index.html



```
MINGW64/c/SPB_DATA/project_dir
$ git status
On branch master
No commits yet
Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   index.html
$ git commit -m "New file index.html added"
[master (root-commit) cb6de80] New file index.html added
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.



```
MINGW64/c/SPB_DATA/project_dir
ch1>Hello worldch1>
<p>I love using Git & Github, it makes my work eary. </p>
$ touch info.txt
$ 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
```

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

```
MINGW64/c/SPB_DATA/project_dir
ENOVORDESKTOP-TKJEDNR MINGW64 ~/project_dir (master)
$ vi index.html
ENOVORDESKTOP-TKJEDNR 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

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

9. Configure GIT to ignore all txt files.

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

```
MINGW64/c/SPB_DATA/project_dir
no changes added to commit (use "git add" and/or "git commit -a")
ENOVORDESKTOP-TKJEDNR MINGW64 ~/project_dir (master)
$ touch .gitignore
ENOVORDESKTOP-TKJEDNR MINGW64 ~/project_dir (master)
$ vi .gitignore
ENOVORDESKTOP-TKJEDNR 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)
        .gitignore

no changes added to commit (use "git add" and/or "git commit -a")
ENOVORDESKTOP-TKJEDNR MINGW64 ~/project_dir (master)
```

11. State & commit index.html

```
MINGW64/c/SPB_DATA/project_dir
$
ENOVORDESKTOP-TKJEDNR MINGW64 ~/project_dir (master)
$ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   index.html

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

ENOVORDESKTOP-TKJEDNR MINGW64 ~/project_dir (master)
$ git commit -m "added modified file index.html"
[master fe85ca5] added modified file index.html
1 file changed, 3 insertions(+)
ENOVORDESKTOP-TKJEDNR MINGW64 ~/project_dir (master)
$ git log
commit fe85ca5dd5741c8ed623b2d8fdbef91e1162c7d (HEAD -> master)
Author: AkshayAR-11 <arakshay2000@gmail.com>
Date: Sat Feb 5 12:07:43 2022 +0530
```

12. Log all your comments so far.

```
MINGW64/c/SPB_DATA/project_dir
$ git log
ENOVORDESKTOP-TKJEDNR MINGW64 ~/project_dir (master)
$ git commit -m "added modified file index.html"
[master fe85ca5] added modified file index.html
1 file changed, 3 insertions(+)
ENOVORDESKTOP-TKJEDNR MINGW64 ~/project_dir (master)
$ git log
commit fe85ca5dd5741c8ed623b2d8fdbef91e1162c7d (HEAD -> master)
Author: AkshayAR-11 <arakshay2000@gmail.com>
Date: Sat Feb 5 12:07:43 2022 +0530

    added modified File index.html

commit cb6de806b2aee34556a71f5fa1f9a079bd5b443b
Author: AkshayAR-11 <arakshay2000@gmail.com>
Date: Sat Feb 5 11:19:10 2022 +0530

    New File index.html added
ENOVORDESKTOP-TKJEDNR MINGW64 ~/project_dir (master)
$
```

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.

```
MINGW64/c/SPB_DATA/project_dir
ENOVORDESKTOP-TKJEDNR MINGW64 ~/project_dir (main)
$ vi index.html
ENOVORDESKTOP-TKJEDNR MINGW64 ~/project_dir (main)
$ git restore index.html
ENOVORDESKTOP-TKJEDNR MINGW64 ~/project_dir (main)
$ vi index.html
ENOVORDESKTOP-TKJEDNR MINGW64 ~/project_dir (main)
$ git add index.html
ENOVORDESKTOP-TKJEDNR MINGW64 ~/project_dir (main)
$ git reset
Unstaged changes after reset:
M       index.html
ENOVORDESKTOP-TKJEDNR MINGW64 ~/project_dir (main)
$
```

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

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

```
MINGW64/c/SPB_DATA/project_dir
$ git log --oneline
41370d (HEAD -> main) added changed index.html
a9c64df Added changed index.html
84b0a8b Added changes
47dee0a First commit
re83ca5 added modified file index.html
cb6de80 New file index.html added

$ git status
On branch main
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        gitignore
        Assignments/

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

$
```

20. Revert the last commit.

```
MINGW64/c/SPB_DATA/project_dir
$ git log --oneline
41370d (HEAD -> main) added changed index.html
a9c64df Added changed index.html
84b0a8b Added changes
47dee0a First commit
re83ca5 added modified file index.html
cb6de80 New file index.html added

$ git reset HEAD~
Unstaged changes after reset:
M   index.html

$ git log --oneline
a9c64df (HEAD -> main) Added changed index.html
84b0a8b Added changes
47dee0a First commit
re83ca5 added modified file index.html
cb6de80 New file index.html added

$
```

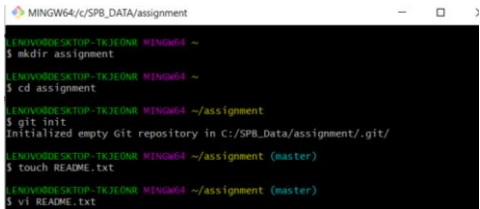
Continued next page.....

GIT Branching

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

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

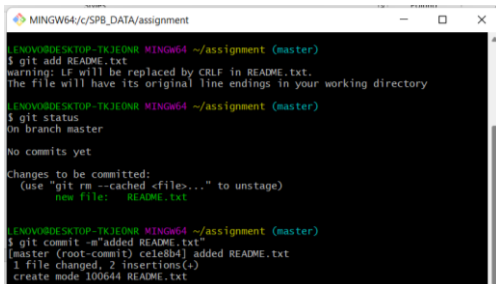
21. First take a backup of your assignments & projects. This is required because due to incorrect GIT operation you may lose your files.
22. Create an empty directory 'Assignments' & cd to 'Assignments'.
23. Create a file README.txt inside 'Assignments' & write few lines about the contents of 'Assignments'



```
MINGW64/c/SPB_DATA/assignment
$ mkdir assignment
$ cd assignment
$ git init
Initialized empty Git repository in C:/SPB_Data/assignment/.git/
$ touch README.txt
$ vi README.txt
```

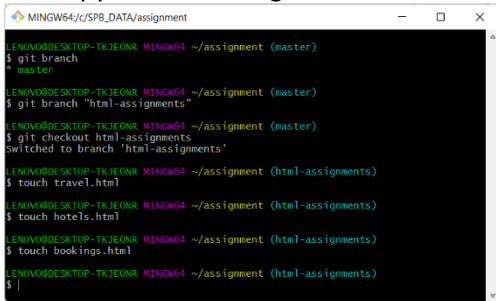
folder.

24. Commit README.txt file.



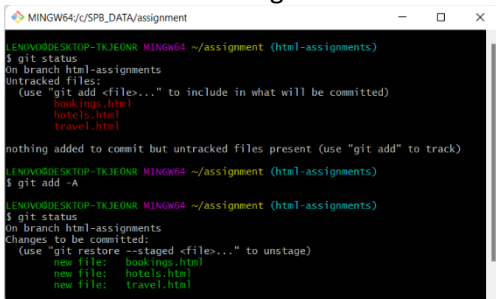
```
MINGW64/c/SPB_DATA/assignment
$ git add README.txt
warning: LF will be replaced by CRLF in README.txt.
The file will have its original line endings in your working directory
$ git status
On branch master
No commits yet
Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
    new file:   README.txt
$ git commit -m "added README.txt"
[master (root-commit) c1e8b41] added README.txt
1 file changed, 2 insertions(+)
create mode 100644 README.txt
```

25. Now create a new branch 'html-assignments'.
26. Switch to 'html-assignments' branch.
27. Copy all HTML assignments inside 'Assignments' folder.



```
MINGW64/c/SPB_DATA/assignment
$ git branch
$ git branch "html-assignments"
$ git checkout html-assignments
Switched to branch 'html-assignments'
$ touch travel.html
$ touch hotels.html
$ touch bookings.html
$ |
```

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



```
MINGW64/c/SPB_DATA/assignment
$ git status
On branch html-assignments
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    bookings.html
    hotels.html
    travel.html
nothing added to commit but untracked files present (use "git add" to track)
$ git add -A
$ git status
On branch html-assignments
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   bookings.html
    new file:   hotels.html
    new file:   travel.html
```

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

```
MINGW64/c/SPB_DATA/assignment
ENOVORDESKTOP-TKJEDNR MINGW64 ~/assignment (html-assignments)
$ vi hotels.html
ENOVORDESKTOP-TKJEDNR MINGW64 ~/assignment (html-assignments)
$ vi bookings.html
ENOVORDESKTOP-TKJEDNR MINGW64 ~/assignment (html-assignments)
$ vi travel.html
```

30. Commit those changed files.

31. Switch to master branch.

```
MINGW64/c/SPB_DATA/assignment
ENOVORDESKTOP-TKJEDNR MINGW64 ~/assignment (html-assignments)
$ git add -A
warning: LF will be replaced by CRLF in bookings.html.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in hotels.html.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in travel.html.
The file will have its original line endings in your working directory
ENOVORDESKTOP-TKJEDNR MINGW64 ~/assignment (html-assignments)
$ git commit -m "Added minor changes to these files"
[html-assignments 249227e] Added minor changes to these files
3 files changed, 3 insertions(+)
create mode 100644 bookings.html
create mode 100644 hotels.html
create mode 100644 travel.html
ENOVORDESKTOP-TKJEDNR MINGW64 ~/assignment (html-assignments)
$ git checkout master
Switched to branch 'master'
```

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

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

```
MINGW64/c/SPB_DATA/assignment
ENOVORDESKTOP-TKJEDNR MINGW64 ~/assignment (master)
$ vi README.txt
ENOVORDESKTOP-TKJEDNR MINGW64 ~/assignment (master)
$ git add -A
warning: LF will be replaced by CRLF in README.txt.
The file will have its original line endings in your working directory
ENOVORDESKTOP-TKJEDNR MINGW64 ~/assignment (master)
$ git commit -m "Changed file"
[master de94c6c] Changed file
1 file changed, 1 insertion(+)
ENOVORDESKTOP-TKJEDNR MINGW64 ~/assignment (master)
$ git checkout html-assignment
error: pathspec 'html-assignment' did not match any file(s) known to git
```

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

35. Commit those changes.

```
MINGW64/c/SPB_DATA/assignment
ENOVORDESKTOP-TKJEDNR MINGW64 ~/assignment (master)
$ git checkout html-assignments
Switched to branch 'html-assignments'
ENOVORDESKTOP-TKJEDNR MINGW64 ~/assignment (html-assignments)
$ vi travels.html
ENOVORDESKTOP-TKJEDNR MINGW64 ~/assignment (html-assignments)
$ vi bookings.html
ENOVORDESKTOP-TKJEDNR MINGW64 ~/assignment (html-assignments)
$ git add -A
warning: LF will be replaced by CRLF in travels.html.
The file will have its original line endings in your working directory
ENOVORDESKTOP-TKJEDNR MINGW64 ~/assignment (html-assignments)
$ git commit -m "made changes to html files"
[html-assignments ef182c5] made changes to html files
2 files changed, 2 insertions(+)
create mode 100644 travels.html
```

36. Switch to master.

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

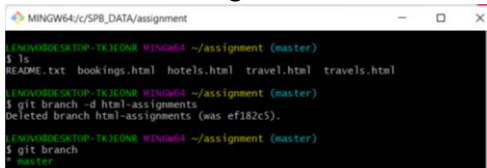
```
MINGW64/c/SPB_DATA/assignment
ENOVORDESKTOP-TKJEDNR MINGW64 ~/assignment (html-assignments)
$ git checkout master
Switched to branch 'master'
ENOVORDESKTOP-TKJEDNR MINGW64 ~/assignment (master)
$ git merge html-assignments
merge made by the 'ort' strategy.
   bookings.html | 2 ++
   hotels.html   | 1 +
   travel.html   | 1 +
   travels.html  | 1 +
  4 files changed, 5 insertions(+)
  create mode 100644 bookings.html
  create mode 100644 hotels.html
  create mode 100644 travel.html
  create mode 100644 travels.html
ENOVORDESKTOP-TKJEDNR MINGW64 ~/assignment (master)
$ git ls
git: 'ls' is not a git command. See 'git --help'.
The most similar command is
  lfs
```

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

```
ENOVORDESKTOP-TKJEDNR MINGW64 ~/assignment (master)
$ ls
README.txt bookings.html hotels.html travel.html travels.html
ENOVORDESKTOP-TKJEDNR MINGW64 ~/assignment (master)
$ git branch -d html-assignments
Deleted branch html-assignments (was ef182c5).
ENOVORDESKTOP-TKJEDNR MINGW64 ~/assignment (master)
$ git branch
* master
```

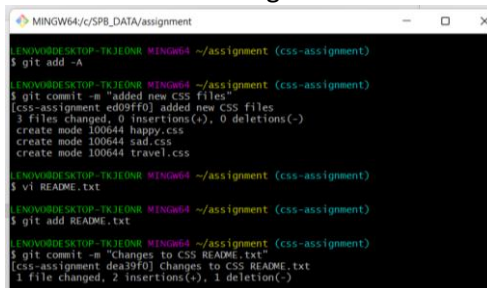
SECTION-2 - (CSS assignments) -Steps to follow:

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.



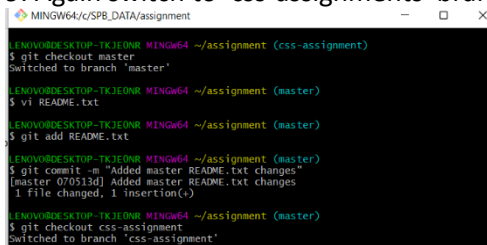
```
MINGW64/c/SP8_DATA/assignment
ENVOIRDESKTOP-TKJEDNR MINGW64 ~/assignment (master)
$ ls
README.txt bookings.html hotels.html travel.html travels.html
$ git branch -d html-assignments
Deleted branch html-assignments (was ef182c5).
$ git branch
* master
```

5. Make minor changes into README.txt file on line 1 belonging to 'css-assignments' branch.
6. Commit those changed files.



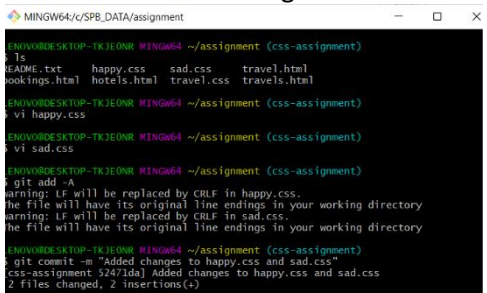
```
MINGW64/c/SP8_DATA/assignment
$ git add -A
$ git commit -m "added new CSS files"
[css-assignment ed09ff0] added new CSS files
3 files changed, 0 insertions(+), 0 deletions(-)
create mode 100644 happy.css
create mode 100644 sad.css
create mode 100644 travel.css
$ vi README.txt
$ git add README.txt
$ git commit -m "Changes to CSS README.txt"
[css-assignment dea39f0] Changes to CSS README.txt
1 file changed, 2 insertions(+), 1 deletion(-)
```

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.



```
MINGW64/c/SP8_DATA/assignment
$ git checkout master
Switched to branch 'master'
$ vi README.txt
$ git add README.txt
$ git commit -m "Added master README.txt changes"
[master 070513d] Added master README.txt changes
1 file changed, 1 insertion(+)
$ git checkout css-assignment
Switched to branch 'css-assignment'
```

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



```
MINGW64/c/SP8_DATA/assignment
$ ls
README.txt happy.css sad.css travel.html
bookings.html hotels.html travel.css travels.html
$ vi happy.css
$ vi sad.css
$ git add -A
warning: LF will be replaced by CRLF in happy.css.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in sad.css.
The file will have its original line endings in your working directory
$ git commit -m "Added changes to happy.css and sad.css"
[css-assignment 32471da] Added changes to happy.css and sad.css
2 files changed, 2 insertions(+)
```

12. Switch to master.

```

MINGW64/c/SPB_DATA/assignment
C:\Users\TKJEDNR\OneDrive\Desktop> git branch
* css-assignment
  master

C:\Users\TKJEDNR\OneDrive\Desktop> git merge css-assignment
Auto-merging README.txt
CONFLICT (content): Merge conflict in README.txt
Automatic merge failed; fix conflicts and then commit the result.

C:\Users\TKJEDNR\OneDrive\Desktop> vi README.txt

C:\Users\TKJEDNR\OneDrive\Desktop> 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:

```

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

```

MINGW64/c/SPB_DATA/assignment
C:\Users\TKJEDNR\OneDrive\Desktop> git merge css-assignment
Auto-merging README.txt
CONFLICT (content): Merge conflict in README.txt
Automatic merge failed; fix conflicts and then commit the result.

C:\Users\TKJEDNR\OneDrive\Desktop> 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:   happy.css
  new file:   sad.css
  new file:   travel.css

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

```

```

MINGW64/c/SPB_DATA/assignment
C:\Users\TKJEDNR\OneDrive\Desktop> git add README.txt

C:\Users\TKJEDNR\OneDrive\Desktop> git commit
[master 5ec5596] Merge branch 'css-assignment'

```

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

```

MINGW64/c/SPB_DATA/assignment
C:\Users\TKJEDNR\OneDrive\Desktop> ls
README.txt  happy.css  sad.css  travel.html
bookings.html  hotels.html  travel.css  travels.html

C:\Users\TKJEDNR\OneDrive\Desktop> git branch -d css-assignment
Deleted branch css-assignment (was 52471da).

```

Continued in next page....

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

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

2. Switch to 'js-assignments' branch.

```
MINGW64/c/SPB_DATA/assignment
$ git branch
* master
$ git branch js-assignment
$ git checkout js-assignment
Switched to branch 'js-assignment'
```

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

```
MINGW64/c/SPB_DATA/assignment
$ touch happy.js
$ touch sad.js
$ ls
README.txt  happy.css  hotels.html  sad.js  travel.html
bookings.html  happy.js  sad.css  travel.css  travels.html
```

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

```
bookings.html  happy.js  sad.css  travel.css  travels.html
MINGW64/c/SPB_DATA/assignment
$ git commit -a -m "New JSS files added"
[master js-assignment]
Untracked files:
  (use "git add <file>..." to include in what will be committed)
  happy.js
  sad.js
nothing added to commit but untracked files present (use "git add" to track)
$ git add -A
$ git commit
[jss-assignment 70fd9d1] Added new JSS files
2 files changed, 0 insertions(+), 0 deletions(-)
create mode 100644 happy.js
create mode 100644 sad.js
```

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.

```
MINGW64/c/SPB_DATA/assignment
$ vi README.txt
$ git add -A
$ git commit -m "made changes to README.txt"
[jss-assignment a2ef66a] made changes to README.txt
1 file changed, 1 insertion(+), 1 deletion(-)
$ git checkout master
Switched to branch 'master'
```

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

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

```
MINGW64/c/SPB_DATA/assignment
$ vi README.txt
$ git add README.txt
$ git commit -m "Master changes"
[master c78a97a] Master changes
1 file changed, 1 insertion(+), 1 deletion(-)
$ git checkout js-assignment
Switched to branch 'js-assignment'
```

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

11. Commit those changes.

12. Switch to master.


```

LENOVOVORDESKTOP-TK3EDNR MINGW64 ~/assignment (jss-assignment)
$ vi happy.js
LENOVOVORDESKTOP-TK3EDNR MINGW64 ~/assignment (jss-assignment)
$ vi sad.js
LENOVOVORDESKTOP-TK3EDNR MINGW64 ~/assignment (jss-assignment)
$ git add -A
warning: LF will be replaced by CRLF in happy.js.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in sad.js.
The file will have its original line endings in your working directory
LENOVOVORDESKTOP-TK3EDNR MINGW64 ~/assignment (jss-assignment)
$ git commit -m "changes to JSS files"
[jss-assignment 0fbb7c4] changes to JSS files
2 files changed, 2 insertions(+)
LENOVOVORDESKTOP-TK3EDNR MINGW64 ~/assignment (jss-assignment)
$ git checkout master
Switched to branch '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/SPB_DATA/assignment
LENOVOVORDESKTOP-TK3EDNR MINGW64 ~/assignment (master|MERGING)
$ vi README.txt
LENOVOVORDESKTOP-TK3EDNR MINGW64 ~/assignment (master|MERGING)
$ git commit
error: Committing is not possible because you have unmerged files.
hint: Fix them up in the work tree, and then use 'git add/rm <file>'
hint: as appropriate to mark resolution and make a commit.
fatal: Exiting because of an unresolved conflict.
u README.txt
LENOVOVORDESKTOP-TK3EDNR MINGW64 ~/assignment (master|MERGING)
$ git add -A
LENOVOVORDESKTOP-TK3EDNR MINGW64 ~/assignment (master|MERGING)
$ git commit
[master 03634cf] Merge branch 'jss-assignment'
LENOVOVORDESKTOP-TK3EDNR MINGW64 ~/assignment (master)
$ git branch -d jss-assignment
Deleted branch jss-assignment (was 0fbb7c4).

```