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

```
mkdir project_dir
cd project_dir
```

2. Initialize git version database.

git init

3. Create a new file index.html

touch index.html

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

git status

5. Stage the index.html file.

git add index.html

```
MINGW64:/c/Users/LENOVO/Desktop/project_dir

LENOVO@Bablu MINGW64 ~/Desktop

$ cd project_dir

LENOVO@Bablu MINGW64 ~/Desktop/project_dir

LENOVO@Bablu MINGW64 ~/Desktop/project_dir

$ git init
Initialized empty Git repository in C:/Users/LENOVO/Desktop/project_dir/.git/

LENOVO@Bablu MINGW64 ~/Desktop/project_dir (master)

$ touch index.html

LENOVO@Bablu MINGW64 ~/Desktop/project_dir (master)

$ git add index.html
```

Screenshot of the commands form (1-5)

6. Commit index.html

```
git commit -m "first commit commited file : index.html"
```

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

```
touch info.txt
```

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

```
git status
```

9. Configure GIT to ignore all txt files.

Command added in the git ignore file -

```
*.txt
git add .gitingore
git commit -m "added git ignore file : .gitingore"
```

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

git status

11. State & commit index.html

git add index.html

git commit -m "added new heading in the index.html"

```
MINGW64:/c/Users/LENOVO/Desktop/project_dir
LENOVO@Bablu MINGW64 ~/Desktop/project_dir (master)
$ git commit index.html -m " first commit added file : "index.html" "
[master (root-commit) ff0a6c8] first commit added file : index.html
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 index.html
LENOVO@Bablu MINGW64 ~/Desktop/project_dir (master) $ touch info.txt
 .ENOVO@Bablu 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)
Untracked files:
   (use "git add <file>..." to include in what will be committed)
no changes added to commit (use "git add" and/or "git commit -a")
 _ENOVO@Bablu MINGW64 ~/Desktop/project_dir (master)
$ touch .gitignore
 ENOVO@Bablu MINGW64 ~/Desktop/project_dir (master)
$ git add .gitignore
 ENOVO@Bablu MINGW64 ~/Desktop/project_dir (master)
$ git status
On branch master
Changes to be committed:

(use "git restore --staged <file>..." to unstage)

new file: .gitignore
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)
 ENOVO@Bablu MING
                              64 ~/Desktop/project_dir (master)
$ git add index.html
LENOVO@Bablu MINGW64 ~/Desktop/project_dir (master)
$ git commit -m " added 1 new new heading in the file index.html , added a new file .gitignore"
[master ab76ff1] added 1 new new heading in the file index.html , added a new file .gitignore
2 files changed, 8 insertions(+)
create mode 100644 .gitignore
```

Screenshot of the commands form (6-11)

12. Log all your comments so far.

## git log

```
LENOVO@Bablu MINGW64 ~/Desktop/project_dir (master)

§ git commit -m " added 1 new new heading in the file index.html , added a new file .gitignore"

[master ab76ff1] added 1 new new heading in the file index.html , added a new file .gitignore

2 files changed, 8 insertions(+)
create mode 100644 .gitignore

LENOVO@Bablu MINGW64 ~/Desktop/project_dir (master)

§ git log
commit ab76ff18053e9092b422d31b914e5c745a22782d (HEAD -> master)

Author: saisukumarpinninti <saisukumarpinniti@gmail.com>
Date: Fri Feb 4 16:28:01 2022 +0530

added 1 new new heading in the file index.html , added a new file .gitignore

commit ff0a6c8d9537ec35faa585e2ab63a95f0dceae7e

Author: saisukumarpinninti <saisukumarpinniti@gmail.com>
Date: Fri Feb 4 16:23:09 2022 +0530

first commit added file : index.html
```

Screenshot of the command (13)

- 13. Make some changes in index.html.
- 14. Revert the change made in the previous step using git command.

```
git checkout -- index.html
```

- 15. Again change index.html.
- 16. Stage index.html

```
git add index.html
```

17. Revert back the last stage.

```
git rm --cached index.html
```

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

git config --global alias.my-add "add"

```
LENOVO@Bablu 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

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

LENOVO@Bablu MINGW64 ~/Desktop/project_dir (master)
$ git checkout -- index.html

LENOVO@Bablu MINGW64 ~/Desktop/project_dir (master)
$ git add index.html

LENOVO@Bablu MINGW64 ~/Desktop/project_dir (master)
$ git rm --cached index.html

LENOVO@Bablu MINGW64 ~/Desktop/project_dir (master)
$ git config --global alais.my-add add

LENOVO@Bablu MINGW64 ~/Desktop/project_dir (master)
$ git my-add index.html
```

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

```
git my-add index.html
git commit -m "added new heading h3 in the index.html"
```

```
LENOVO@Bablu MINGW64 ~/Desktop/project_dir (master)
$ git commit -m " added a new heading h4 to the file index.html "
[master 958abf5] added a new heading h4 to the file index.html
1 file changed, 2 insertions(+)
```

Screenshot of the command (19)

20. Revert the last commit.

```
git log --oneline
git revert 7a678ge "reverting back to last commit because of faulty code"
```

Screenshot of the command (20)

## **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'.

mkdir assingments cd assingments

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

touch README.txt

24. Commit README.txt file.

```
git add README.txt
git commit -m "added README.txt"
```

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

git branch html-assingments

26. Switch to 'html-assignments' branch.

```
git checkout html-assingments
```

- 27. Copy all HTML assignments inside 'Assignments' folder.
- 28. Commit HTML assignments into 'html-assignments' branch.

```
git add .
git commit -m "added html-assignment files"
```

- 29. Make minor changes into few files belonging to 'html-assignments' branch.
- 30. Commit those changed files.

```
git add .
git commit -m "minor changes in the file index.html belonging to html-
assignment files"
```

31. Switch to master branch.

```
git checkout master
```

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

```
git add .
git commit -m "added description of the html-assignment files"
```

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

```
git checkout html-assingments
```

```
MINGW64:/c/Users/LENOVO/Desktop/assingments
ENOVO@Bablu MINGW64 ~/Desktop/assingments
$ git init
Initialized empty Git repository in C:/Users/LENOVO/Desktop/assingments/.git/
ENOVO@Bablu MINGW64 ~/Desktop/assingments (master)
$ git add README.txt
fatal: pathspec 'README.txt' did not match any files
 .ENOVO@Bablu MINGW64 ~/Desktop/assingments (master)
$ touch README.txt
 .ENOVO@Bablu MINGW64 ~/Desktop/assingments (master)
$ git add README.txt
LENOVO@Bablu MINGW64 ~/Desktop/assingments (master)

$ git commit -m "added README.txt"

[master (root-commit) c5ea8c7] added README.txt
 1 file changed, 1 insertion(+)
 create mode 100644 README.txt
 ENOVO@Bablu MINGW64 ~/Desktop/assingments (master)
$ git branch html-assingments
_ENOVO@Bablu MINGW64 ~/Desktop/assingments (master)
$ git checkout html-assingments
Switched to branch 'html-assingments'
.ENOVO@Bablu MINGW64 ~/Desktop/assingments (html-assingments)
$ git status
On branch html-assingments
Untracked files:
  (use "git add <file>..." to include in what will be committed)
nothing added to commit but untracked files present (use "git add" to track)
 .ENOVO@Bablu MINGW64 ~/Desktop/assingments (html-assingments)
$ git add .
LENOVO@Bablu MINGW64 ~/Desktop/assingments (html-assingments)
$ git commit -m " added index.html file"
[html-assingments 65f4152] added index.html file
1 file changed, 7 insertions(+)
create mode 100644 index.html
_ENOVO@Bablu MINGW64 ~/Desktop/assingments (html-assingments)
$ git status
On branch html-assingments
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)
no changes added to commit (use "git add" and/or "git commit -a")
ENOVO@Bablu MINGW64 ~/Desktop/assingments (html-assingments)
  git add .
```

Screenshot of the commands form (21-33)

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

git commit -m "added new heading in the file index.html belonging to html-assignment files"

36. Switch to master.

git checkout master

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

```
git merge html-assingments
git branch --merged
```

```
NINGW64:/c/Users/LENOVO/Desktop/assingments
                 ablu MINGW64 ~/Desktop/assingments (html-assingments)
  ENOVO@Bablu MINGW64 ~/Desktop/assingments (html-assingments) git commit -m " added new heading hello in index.html file
>
[html-assingments 9297e73] added new heading hello in index.html file
1 file changed, 2 insertions(+)
 LENOVO@Bablu MINGW64 ~/Desktop/assingments (html-assingments)

§ git checkout master

Switched to branch 'master'
  .ENOVO@Bablu MINGW64 ~/Desktop/assingments (master)
  git add .
LENOVO®Bablu MINGW64 ~/Desktop/assingments (master)

§ git commit - m " added description about the html file in readme.txt"

error: pathspec '-' did not match any file(s) known to git

error: pathspec 'm' did not match any file(s) known to git

error: pathspec ' added description about the html file in readme.txt' did not match any file(s) known to

git
 ENOVO@Bablu MINGW64 ~/Desktop/assingments (master)
§ git commit -m " added description about the html file in readme.txt"
[master c37c376] added description about the html file in readme.txt
1 file changed, 2 insertions(+)
  ENOVO@Bablu MINGw64 ~/Desktop/assingments (master)
git checkout html-assingments
witched to branch 'html-assingments'
  ENOVO@Bablu MINGW64 ~/Desktop/assingments (html-assingments)
s git add.
git: 'add.' is not a git command. See 'git --help'.
 The most similar command is
   ENOVO@Bablu MINGW64 ~/Desktop/assingments (html-assingments)
   git add .
LENOVO@Bablu MINGW64 ~/Desktop/assingments (html-assingments)

§ git commit -m " changed the placement of headings in index.html"

[html-assingments 3aae681] changed the placement of headings in index.html

1 file changed, 1 insertion(+), 1 deletion(-)
  ENOVO@Bablu MINGW64 ~/Desktop/assingments (html-assingments) git checkout master witched to branch 'master'
                                     64 ~/Desktop/assingments (master)
  ENOVO@Bablu MINGW64 ~/Desktop/as:
6 git merge html-assingments
lerge made by the 'ort' strategy.
index.html | 9 ++++++++
1 file changed, 9 insertions(+)
create mode 100644 index.html
```

Screenshot of the commands form (34-37)

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

```
git branch -d html-assingments
git status
git log

LENOVO@Bablu MINGW64 ~/Desktop/assingments (master)
$ git branch -d html-assingments
Deleted branch html-assingments (was 3aae681).
```

Screenshot of the command (38)

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

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

```
git branch css-assingments
```

2. Switch to 'css-assignments' branch.

```
git checkout css-assingments
```

- 3. Copy all CSS assignments inside 'Assignments' folder.
- 4. Commit CSS assignments into 'css-assignments' branch.

```
git add .
git commit -m "added css-assignment files"
```

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

```
git add README.txt
git commit -m "added descrption of css in README.txt"
```

7. Switch to master branch.

```
git checkout master
```

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

```
git add .
git commit -m "added descrption of html and css linkup in README.txt"
```

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

## git checkout css-assingments

```
LENDYOBBBBB W MINGW64 -/Desktop/assingments (master)
$ git checkout -b cs-asssingments
Smitched to a new branch 'css-asssingments'
LENDYOBBBBB W MINGW64 -/Desktop/assingments (css-asssingments)
$ git status
On branch css-asssingments
Clanges not staged for commit:
Use "git restore sfile>..." to discard changes in working directory)

Untracked files:
(use "git restore sfile>..." to include in what will be committed)
(use "git restore sfile>..." to include in what will be committed)

Untracked files:
(use "git add 'sfile>..." to include in what will be committed)

Index.ess

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

LENDYOBBBB W MINGW64 -/Desktop/assingments (css-asssingments)
$ git add 'NINGW64 -/Desktop/assingments (css-asssingments)
$ git commit -m 'added cs file to index
2 files changed, 12 insertions(s)
$ git branch

CLENDYOBBBB W MINGW64 -/Desktop/assingments (css-asssingments)
$ git branch

CLENDYOBBBB W MINGW64 -/Desktop/assingments (css-asssingments)
$ git branch

S git add .

LENDYOBBBB W MINGW64 -/Desktop/assingments (css-asssingments)
$ git add .

LENDYOBBBB W MINGW64 -/Desktop/assingments (css-asssingments)
$ git commit -m 'added description of the index.css file in readme.txt file "[css-asssingments master]

LENDYOBBBB W MINGW64 -/Desktop/assingments (css-asssingments)
$ git changed, 1 insertion(s), 1 deletion(-)

LENDYOBBBB W MINGW64 -/Desktop/assingments (master)
$ git changed, 1 insertion(s), 1 deletion(-)
$ git add .

LENDYOBBBB W MINGW64 -/Desktop/assingments (master)
$ git add .

LENDYOBBBB W MINGW64 -/Desktop/assingments (master)
$ git add .

LENDYOBBBB W MINGW64 -/Desktop/assingments (master)
$ git add .

LENDYOBBBB W MINGW64 -/Desktop/assingments (master)
$ git add .

LENDYOBBBB W MINGW64 -/Desktop/assingments (master)
$ git add .

LENDYOBBBB W MINGW64 -/Desktop/assingments (master)
$ git checkout css-assingments 'did not match any file(s) known to git

LENDYOBBBB W MINGW64 -/Desktop/assingments (master)
$ git checkout css-assingments 'did not match any file(s) know
```

Screenshot of the commands form section-02 (1-9)

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

```
git add .
git commit -m " added few more lines to css-assignment files"
```

12. Switch to master.

```
git checkout master
```

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

```
git merge css-assingments
git branch --merged
```

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

```
git branch -d css-assingments
git status
git log
```

```
css-asssingments
master
 .ENOVO@Bablu MINGW64 ~/Desktop/assingments (css-asssingments)
$ git add .
 _ENOVOOBablu MINGW64 ~/Desktop/assingments (css-asssingments)

§ git commit -m " added description of the index.css file in readme.txt file "
[css-asssingments 1d6932a] added description of the index.css file in readme.txt file
1 file changed, 1 insertion(+), 1 deletion(-)
 ENOVO@Bablu MINGW64 ~/Desktop/assingments (css-asssingments) git checkout master waster'
  ENOVO@Bablu MINGW64 ~/Desktop/assingments (master)
  git add .
 ENOVO@Bablu MINGW64 ~/Desktop/assingments (master)
git commit -m " added few fummy lines in readme.txt "
master 2f66ef0] added few fummy lines in readme.txt
1 file changed, 2 insertions(+)
LENOVO@Bablu MINGW64 ~/Desktop/assingments (master)
$ git checkout css-assingments
error: pathspec 'css-assingments' did not match any file(s) known to git
  ENOVO@Bablu MINGW64 ~/Desktop/assingments (master) git checkout css-asssingments witched to branch 'css-asssingments'
 <code>.ENOVO@Bablu MINGW64 \sim/Desktop/assingments (css-asssingments)</code> git add .
  ENOVO@Bablu MINGW64 ~/Desktop/assingments (css-asssingments)
git commit -m " added few lines to index.css "
css-asssingments 5ee94ba] added few lines to index.css
1 file changed, 1 insertion(+)
  ENOVO@Bablu MINGW64 ~/Desktop/assingments (css-asssingments)
 $ git checkout master
Switched to branch 'master'
  ENOVO@Bablu MINGW64 ~/Desktop/assingments (master) git merge css-asssingments
ENOVOGRablu MINGW64 ~/Desktop/assingments (master)
5 git branch -d css-asssingments
Deleted branch css-asssingments (was 5ee94ba).
   NOVO@Bablu MINGW64 ~/Desktop/assingments (master)
```

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

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

```
git branch js-assingments
```

2. Switch to 'js-assignments' branch.

```
git checkout js-assingments
```

- 3. Copy all JS assignments inside 'Assignments' folder.
- 4. Commit JS assignments into 'js-assignments' branch.

```
git add .
git commit -m "added js-assignment files"
```

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

```
git add README.txt
git commit -m "added descrption of js in README.txt"
```

7. Switch to master branch.

```
git checkout master
```

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

```
git add .
git commit -m "added descrption of html and js linkup in README.txt"
```

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

```
git checkout js-assingments
```

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

```
git add .
git commit -m " added few more lines to js-assignment files"
```

12. Switch to master.

```
git checkout master
```

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

```
git merge js-assingments
```

a merge conflict occurs due to readme.txt and can be resolved by : cat README.txt

and here we edit the file in which confilict occurred resolve the confilict and save that , then add it to staging and commit it then we will try to merge again.

```
git add .
git commit -m "edited readme.txt file in the case of merge conflict"
```

```
git merge js-assingments
git branch --merged
```

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

```
git branch -d js-assingments
git status
git log
```

```
↑ MINOWG-Va/Lorn/LENOVO/Desktop/assingments

LENOVOBBAIL MINOMA-/Desktop/assingments (master)

§ git branch js-assingments

LENOVOBBAIL MINOMA-/Desktop/assingments (master)

§ git checkout js-assingments

Spit checkout js-assingments

Spit checkout js-assingments

§ git add .

LENOVOBBAIL MINOMA-/Desktop/assingments (js-assingments)

§ git commit = "added js-assignment files"

§ js-assingments Spilacfi added js-assignment files

§ files changed, 24 insertions(c), 1 deletion(-)

create mode 100044 index, js

LENOVOBBAIL MINOMA-/Desktop/assingments (js-assingments)

§ git add README.txt

LENOVOBBAIL MINOMA-/Desktop/assingments (js-assingments)

§ git add README.txt

LENOVOBBAIL MINOMA-/Desktop/assingments (js-assingments)

§ git add Readme.txt

LENOVOBBAIL MINOMA-/Desktop/assingments (js-assingments)

§ git checkout manqued, 2 insertions(c), 1 deletion(-)

LENOVOBBAIL MINOMA-/Desktop/assingments (master)

§ git add .

LENOVOBBAIL MINOMA-/Desktop/assingments (master)

§ git commit = "added description of hiral and js linkup in README.txt

I file changed, 1 insertions(c)

LENOVOBBAIL MINOMA-/Desktop/assingments (master)

§ git commit = "added description of hiral and js linkup in README.txt

I file changed, 1 insertion(c)

LENOVOBBAIL MINOMA-/Desktop/assingments (js-assingments)

§ git commit = "added description of hiral and js linkup in README.txt

I file changed, 1 insertion(c)

LENOVOBBAIL MINOMA-/Desktop/assingments (js-assingments)

§ git commit = "added description of hiral and js linkup in README.txt

LENOVOBBAIL MINOMA-/Desktop/assingments (js-assingments)

§ git commit = "added description of hiral and js linkup in README.txt

LENOVOBBAIL MINOMA-/Desktop/assingments (js-assingments)

§ git commit = "added description of hiral and js linkup in README.txt

LENOVOBBAIL MINOMA-/Desktop/assingments (js-assingments)

§ git commit = "added description of hiral and js linkup in README.txt"

LENOVOBBAIL MINOMA-/Desktop/assingments (js-assingments)

§ git commit = "added description of hiral and js linkup in READM
```

```
LENOVO®Bablu MINGw64 ~/Desktop/assingments (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:
    modified: index.html
    new file: index.js

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

LENOVO®Bablu MINGw64 ~/Desktop/assingments (master|MERGING)
§ git add .

LENOVO®Bablu MINGw64 ~/Desktop/assingments (master|MERGING)
§ git commit -m "resolved conflict while merging
> ""
[master ff0cc83] resolved conflict while merging

LENOVO®Bablu MINGw64 ~/Desktop/assingments (master)
§ git branch -- merged

LENOVO®Bablu MINGw64 ~/Desktop/assingments (master)
§ git merge js-assingments
Already up to date.

LENOVO®Bablu MINGw64 ~/Desktop/assingments (master)
§ git status
On branch master
nothing to commit, working tree clean

LENOVO®Bablu MINGw64 ~/Desktop/assingments (master)
§ git branch -d js-assingments
Deleted branch js-assingments (was Od82779).

LENOVO®Bablu MINGw64 ~/Desktop/assingments (master)
§ leted branch js-assingments (was Od82779).
```

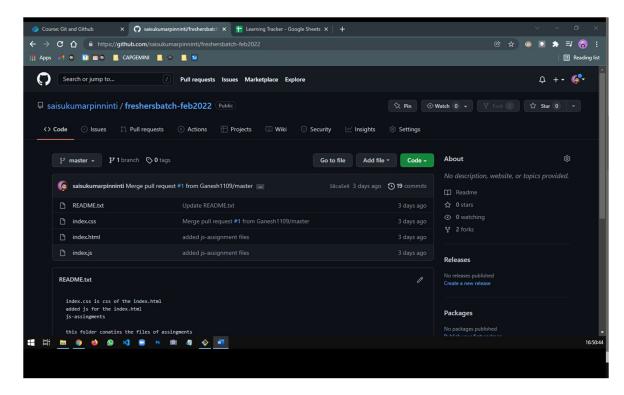
Screenshot of the commands form section-03 (1-13) Screenshot of the commands form section-03 (14)

## **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.



SECTION-2 (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.