

Semester	BE Semester VIII – INFT
Subject	DEVOPS Lab
Subject Professor In-charge	Prof. Rohit Barve
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Grade and Subject	
Teacher's Signature	

Experiment Number	1	
Experiment Title	Perform Version Control using GIT,	
Resources / Apparatus Required	Hardware: Computer	Software: GIT
Procedure or Steps	Create folder Initialize git : git init Create file1.txt in same folder Check status of git : git status Add file on git : git add file1.txt Commit file : git commit file1.txt -m "This is a first commit on file1"	

```
Select C:\Windows\System32\cmd.exe

C:\Users\hp\Desktop\Devops\git practice>git init
Initialized empty Git repository in C:/Users/hp/Desktop/Devops/git practice/.git/

C:\Users\hp\Desktop\Devops\git practice>git status
On branch master

No commits yet

nothing to commit (create/copy files and use "git add" to track)

C:\Users\hp\Desktop\Devops\git practice>git status
On branch master

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        file1.txt

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

C:\Users\hp\Desktop\Devops\git practice>git add file1.txt

C:\Users\hp\Desktop\Devops\git practice>git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   file1.txt

C:\Users\hp\Desktop\Devops\git practice>git commit file1.txt -m "This is a first commit on file1"
[master (root-commit) f52f6ad] This is a first commit on file1
 1 file changed, 1 insertion(+)
 create mode 100644 file1.txt

C:\Users\hp\Desktop\Devops\git practice>git status
On branch master
nothing to commit, working tree clean
```

Do changes in a file1

Do second commit : git commit file1.txt -m "This is a second commit on file1"

Again, do changes in a file1

Do third commit : git commit file1.txt -m "This is a third commit on file1"

```
C:\Users\hp\Desktop\Devops\git practice>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:   file1.txt

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

C:\Users\hp\Desktop\Devops\git practice>git commit file1.txt -m "This is a second commit in file1"
[master 0a3ed57] This is a second commit in file1
 1 file changed, 2 insertions(+), 1 deletion(-)

C:\Users\hp\Desktop\Devops\git practice>git status
On branch master
nothing to commit, working tree clean

C:\Users\hp\Desktop\Devops\git practice>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:   file1.txt

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

C:\Users\hp\Desktop\Devops\git practice>git commit file1.txt -m "This is a third commit on file1"
[master bc3c56b] This is a third commit on file1
 1 file changed, 2 insertions(+), 1 deletion(-)

C:\Users\hp\Desktop\Devops\git practice>git status
On branch master
nothing to commit, working tree clean
```

Get logs of commit : git log

Copy id of any commit

Do hard reset : git reset --hard

"f52f6adf2dbf45dea69868f0a07981879866d22d"

Now all the changes will roll back on file1 and now we are on first commit

```
C:\Users\hp\Desktop\Devops\git practice>git log
commit bc3c56be31ff031e0e2ee3bcf9f568bb6celee31 (HEAD -> master)
Author: PrashikNikumbe <prashiknikumbe@gmail.com>
Date:   Wed Feb 2 23:28:55 2022 +0530

    This is a third commit on file1

commit 0a3ed574874bf94c45218e5c5b5443462bd266a2
Author: PrashikNikumbe <prashiknikumbe@gmail.com>
Date:   Wed Feb 2 23:26:50 2022 +0530

    This is a second commit in file1

commit f52f6adf2dbf45dea69868f0a07981879866d22d
Author: PrashikNikumbe <prashiknikumbe@gmail.com>
Date:   Wed Feb 2 23:19:37 2022 +0530

    This is a first commit on file1

C:\Users\hp\Desktop\Devops\git practice>git reset --hard "f52f6adf2dbf45dea69868f0a07981879866d22d"
HEAD is now at f52f6ad This is a first commit on file1
```

Create file2.txt in same folder.

Add the file2 : git add file2.txt

Commit the file2 : git commit file2.txt -m "This is a first commit on file2"

Create branch b1 : git branch b1

Create branch b2 : git branch b2

Switched to b1 : git checkout b1

Add the file2 for b1: git add file2.txt

Commit the file2 for b1 : git commit file2.txt -m "This is a first commit on file2 for b1"

Do changes in file 2

Second Commit the file2 for b1 : git commit file2.txt -m "This is a second commit on file2 for b1"

Switched to master : git checkout master

Now you will see that file2 does not have any changes because after changes in file2 , commit is done on b1.

```
C:\Users\hp\Desktop\Devops\git practice>git add file2.txt
C:\Users\hp\Desktop\Devops\git practice>git commit file2.txt -m "This is a first commit on file2"
[master f8aac67] This is a first commit on file2
1 file changed, 1 insertion(+)
create mode 100644 file2.txt

C:\Users\hp\Desktop\Devops\git practice>git branch b1
C:\Users\hp\Desktop\Devops\git practice>git branch b2
C:\Users\hp\Desktop\Devops\git practice>git checkout b1
Switched to branch 'b1'

C:\Users\hp\Desktop\Devops\git practice>git status
On branch b1
nothing to commit, working tree clean

C:\Users\hp\Desktop\Devops\git practice>git add file2.txt
C:\Users\hp\Desktop\Devops\git practice>git commit file2.txt -m "This is a first commit on file2 for b1"
On branch b1
nothing to commit, working tree clean

C:\Users\hp\Desktop\Devops\git practice>git status
On branch b1
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:   file2.txt

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

C:\Users\hp\Desktop\Devops\git practice>git commit file2.txt -m "This is a second commit of file2 for b2"
[b1 3c454ad] This is a second commit of file2 for b2
1 file changed, 2 insertions(+), 1 deletion(-)

C:\Users\hp\Desktop\Devops\git practice>git checkout master
Switched to branch 'master'
```

Switch to b2 : git checkout b2

Create file3.txt in same folder

Add the file3 for b2 : git add file3.txt

Commit the file3 for b2 : git commit file3.txt -m "This is a first commit on file3 for b2"

Switch to master : git checkout master

Now you will find that file3.txt is not available in folder because for file3 add and commit is done on branch b2 and now we are on master. We can switch back to b2 so that file3 can be available.

```
C:\Users\hp\Desktop\Devops\git practice>git checkout b2
Switched to branch 'b2'

C:\Users\hp\Desktop\Devops\git practice>git status
On branch b2
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        file3.txt

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

C:\Users\hp\Desktop\Devops\git practice>git add file3.txt

C:\Users\hp\Desktop\Devops\git practice>git commit file3.txt -m "This is a first commit on file3 for b2"
[b2 ce06540] This is a first commit on file3 for b2
1 file changed, 1 insertion(+)
create mode 100644 file3.txt

C:\Users\hp\Desktop\Devops\git practice>git status
On branch b2
nothing to commit, working tree clean

C:\Users\hp\Desktop\Devops\git practice>git checkout master
Switched to branch 'master'

C:\Users\hp\Desktop\Devops\git practice>git status
On branch master
nothing to commit, working tree clean

C:\Users\hp\Desktop\Devops\git practice>git checkout b2
Switched to branch 'b2'
```

Conclusion

We learn how to initialize git, add file on git, commit on git, create branches on git and version control.