

LAB ASSIGNMENTS 1: Git & GitHub

Practice following categories of command as demonstrated in the session.

1. basics commands
2. git log
3. git diff command
4. git rm command
5. undo changes using git checkout command
6. git reference (master and head)
7. git reset
8. git ignore
9. git branching and commands
10. merging and conflict
11. deleting branches
12. rebasing
13. git slash
14. git remote commands
15. git tagging

```
KSCSGLOBAL+rahul.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git
$ git init
Initialized empty Git repository in C:/Users/rahul.kalekar/Desktop/day3-git/.git
/

KSCSGLOBAL+rahul.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git status
On branch master

No commits yet

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

KSCSGLOBAL+rahul.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ touch file1

KSCSGLOBAL+rahul.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ touch file2

KSCSGLOBAL+rahul.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ ls
file1 file2

KSCSGLOBAL+rahul.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ cat > file1
line 1 in file 1

KSCSGLOBAL+rahul.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ cat > file2
line 1 in file 2

KSCSGLOBAL+rahul.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ |
```

```

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git add .
warning: LF will be replaced by CRLF in file1.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in file2.
The file will have its original line endings in your working directory

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   file1
        new file:   file2

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git commit -m "added file 1 and file 2"
[master (root-commit) d3d0655] added file 1 and file 2
 2 files changed, 2 insertions(+)
 create mode 100644 file1
 create mode 100644 file2

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git status
On branch master
nothing to commit, working tree clean

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$

```

```

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ echo "line2 is added to file1">> file1

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git add .
warning: LF will be replaced by CRLF in file1.
The file will have its original line endings in your working directory

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git commit -m "line 2 added in file 1"
[master dafed88] line 2 added in file 1
 1 file changed, 1 insertion(+)

```

```
KSCSGLOBAL+rahul.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git log
commit dafed88aa374f4cb85768667031b056d3dd0e89e (HEAD -> master)
Author: RahulKalekar <kalekarrahul12@gmail.com>
Date: Tue Mar 4 10:04:51 2025 +0530

    line 2 added in file 1

commit d3d06559d061e2e57c230fbfb2c8ada685a19aca
Author: RahulKalekar <kalekarrahul12@gmail.com>
Date: Tue Mar 4 10:02:41 2025 +0530

    added file 1 and file 2
```

```
KSCSGLOBAL+rahul.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git log --oneline
dafed88 (HEAD -> master) line 2 added in file 1
d3d0655 added file 1 and file 2
```

```
KSCSGLOBAL+rahul.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git log --author=RahulKalekar --oneline
53539dd (HEAD -> master) line2 is added to file2
dafed88 line 2 added in file 1
d3d0655 added file 1 and file 2
```

```
KSCSGLOBAL+rahul.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git log --max-count=1
commit 53539dda9dc5a645a024d52d80f607989ac4a8e2 (HEAD -> master)
Author: RahulKalekar <kalekarrahul12@gmail.com>
Date: Tue Mar 4 10:10:15 2025 +0530

    line2 is added to file2
```

```
KSCSGLOBAL+rahul.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ echo "line 4 is added to file 1">>file1

KSCSGLOBAL+rahul.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git diff
warning: LF will be replaced by CRLF in file1.
The file will have its original line endings in your working directory
diff --git a/file1 b/file1
index a2f16c2..dbcc520 100644
--- a/file1
+++ b/file1
@@ -1,3 +1,4 @@
 line 1 in file 1
 line2 is added to file1
 line 3 is added to file 1
+line 4 is added to file 1
```

Git reset

soft

```
KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git log --oneline
b09e4ea (HEAD -> master) line 4 is added to file1
cf9574f line 3 added in file1
53539dd line2 is added to file2
dafed88 line 2 added in file 1
d3d0655 added file 1 and file 2

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git reset --soft cf9574f

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git log --oneline
cf9574f (HEAD -> master) line 3 added in file1
53539dd line2 is added to file2
dafed88 line 2 added in file 1
d3d0655 added file 1 and file 2

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   file1

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ cat file1
line 1 in file 1
line2 is added to file1
line 3 is added to file 1
line 4 is added to file 1

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ |
```

Hard ,

Deletes the changes from working directo

```
KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git log --oneline
31485f9 (HEAD -> master) line 4 is added to file1
cf9574f line 3 added in file1
53539dd line2 is added to file2
dafed88 line 2 added in file 1
d3d0655 added file 1 and file 2

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git reset --hard cf9574f
HEAD is now at cf9574f line 3 added in file1

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git log --oneline
cf9574f (HEAD -> master) line 3 added in file1
53539dd line2 is added to file2
dafed88 line 2 added in file 1
d3d0655 added file 1 and file 2

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ cat file1
line 1 in file 1
line2 is added to file1
line 3 is added to file 1

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git status
On branch master
nothing to commit, working tree clean
```

Mixed


```

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git log --oneline
f7643e2 (HEAD -> master) line 4 is added to file1
cf9574f line 3 added in file1
53539dd line2 is added to file2
dafed88 line 2 added in file 1
d3d0655 added file 1 and file 2

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git reset --mixed cf9574f
Unstaged changes after reset:
M      file1

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (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:   file1

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

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git log --oneline
cf9574f (HEAD -> master) line 3 added in file1
53539dd line2 is added to file2
dafed88 line 2 added in file 1
d3d0655 added file 1 and file 2

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ cat file1
line 1 in file 1
line2 is added to file1
line 3 is added to file 1
line 4 is added to file 1

```

Stash

```

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ touch file3

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ ls
file1 file2 file3

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ echo "line 1 added to file3">>file3

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git add .
warning: LF will be replaced by CRLF in file3.
The file will have its original line endings in your working directory

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   file3

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git stash
Saved working directory and index state WIP on master: 9b391b2 line 4 is added t
o file1

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git status
On branch master
nothing to commit, working tree clean

```

But if we create another file , file 4, and don't git add . , it does not push to stash

```

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git stash pop
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   file3

Dropped refs/stash@{0} (7d66de3abf2ad8d0284d3667bfff8c6264fb7591)

KSCSGLOBAL+rahu1.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   file3

```


C: > Users > rahul.kalekar > Desktop > day3-git > .gitignore

```
1  .*
2  /logs
```

.git	04-03-2025 11:01	File folder	
logs	04-03-2025 11:01	File folder	
.gitignore	04-03-2025 11:04	Git Ignore Source File	1 KB
file1	04-03-2025 10:39	File	1 KB
file2	04-03-2025 10:09	File	1 KB
file3	04-03-2025 10:55	File	1 KB

```
KSCSGLOBAL+rahul.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git add .

KSCSGLOBAL+rahul.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git status
On branch master
nothing to commit, working tree clean

KSCSGLOBAL+rahul.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git add .

KSCSGLOBAL+rahul.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$ git status
On branch master
nothing to commit, working tree clean

KSCSGLOBAL+rahul.kalekar@IN-H9X3B54 MINGW64 ~/Desktop/day3-git (master)
$
```

Git branch



