

# Git Assignment

## 1. Create a New Repository.

```
PS G:\Saksham\Code> git init Assignment-repo
Initialized empty Git repository in G:/Saksham/Code/Assignment-repo/.git/
PS G:\Saksham\Code> git config --global user.email "saksham.gupta.2507@gmail.com"
PS G:\Saksham\Code> git config --global user.name "Saksham-Gupta-257"
PS G:\Saksham\Code> 
```



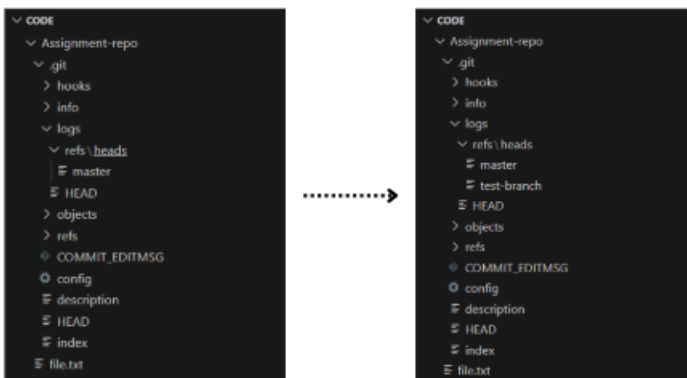
## 2. Create a New File.

```
PS G:\Saksham\Code> cd Assignment-repo
PS G:\Saksham\Code\Assignment-repo> echo "Created a new file for Question 2 of git Assignment" >file.txt
PS G:\Saksham\Code\Assignment-repo> git add file.txt
PS G:\Saksham\Code\Assignment-repo> git commit -m "Added a new file"
[master (root-commit) c8bae01] Added a new file
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 file.txt
PS G:\Saksham\Code\Assignment-repo> 
```



## 3. Create a Branch.

```
PS G:\Saksham\Code\Assignment-repo> git branch test-branch
PS G:\Saksham\Code\Assignment-repo> 
```



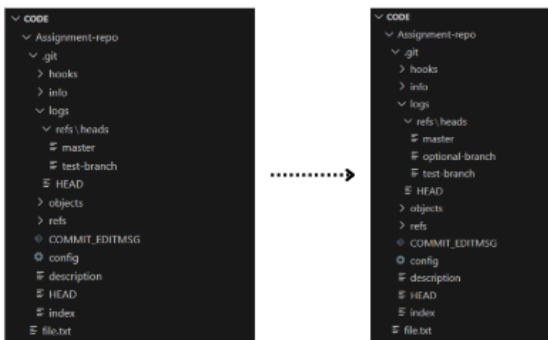
## 4. Make Changes in the New Branch.

```
PS G:\Saksham\Code\Assignment-repo> git checkout test-branch
Switched to branch 'test-branch'
PS G:\Saksham\Code\Assignment-repo> echo "Some changes in file through test-branch" >>file.txt
PS G:\Saksham\Code\Assignment-repo> git add file.txt
PS G:\Saksham\Code\Assignment-repo> git commit -m "Updated file.txt with test-branch"
[test-branch e868fb2] Updated file.txt with test-branch
1 file changed, 0 insertions(+), 0 deletions(-)
PS G:\Saksham\Code\Assignment-repo> 
```



## 5. Create Another Branch (Optional).

```
PS G:\Saksham\Code\Assignment-repo> git branch optional-branch
PS G:\Saksham\Code\Assignment-repo> 
```



## 6. Merge Branches.

```
PS G:\Saksham\Code\Assignment-repo> git checkout master
Switched to branch 'master'
PS G:\Saksham\Code\Assignment-repo> git merge test-branch
Updating c8bae01..e868fb2
Fast-forward
 file.txt | Bin 108 -> 192 bytes
1 file changed, 0 insertions(+), 0 deletions(-)
```

## 7. Pull Changes from Remote.

```
PS G:\Saksham\Code\Assignment-repo> git pull origin master
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (3/3), 1.00 KiB | 1024 bytes/s, done.
From https://github.com/Saksham-Gupta-257/Assignment-repo
 * branch                master      -> FETCH_HEAD
   e868fb2..8aac277  master      -> origin/master
Updating e868fb2..8aac277
Fast-forward
 file.txt | Bin 192 -> 158 bytes
1 file changed, 0 insertions(+), 0 deletions(-)
PS G:\Saksham\Code\Assignment-repo> 
```



## 8. View Git Log and History.

```
PS G:\Saksham\Code\Assignment-repo> git log --oneline --graph --all
* 8aac277 (HEAD -> master, origin/master) Changes Made Remotely
* e868fb2 (test-branch, optional-branch) Updated file.txt with test-branch
* c8bae01 Added a new file
PS G:\Saksham\Code\Assignment-repo> 
```

## 9. Git Status and Staging.

### - Git Status

```
PS G:\Saksham\Code\Assignment-repo> echo "Changes for git staunts,staging,revert,reset commands" >>file.txt
PS G:\Saksham\Code\Assignment-repo> git status
On branch master
Your branch is up to date with 'origin/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:   file.txt

no changes added to commit (use "git add" and/or "git commit -a")
PS G:\Saksham\Code\Assignment-repo> 
```

### - Git Staging

```
PS G:\Saksham\Code\Assignment-repo> git add file.txt
PS G:\Saksham\Code\Assignment-repo> 
```

## 10. Revert and Reset.

### - Revert

```
PS G:\Saksham\Code\Assignment-repo> git commit -m "Changes for revert,reset command"
[master 7322c00] Changes for revert,reset command
1 file changed, 0 insertions(+), 0 deletions(-)
PS G:\Saksham\Code\Assignment-repo> git log --oneline
7322c00 (HEAD -> master) Changes for revert,reset command
8aac277 (origin/master) Changes Made Remotely
e868fb2 (test-branch, optional-branch) Updated file.txt with test-branch
c8bae01 Added a new file
PS G:\Saksham\Code\Assignment-repo> git revert 7322c00
[master c2bccf6] Revert "Changes for revert,reset command"
1 file changed, 0 insertions(+), 0 deletions(-)
PS G:\Saksham\Code\Assignment-repo> 
```

### - Reset

```
PS G:\Saksham\Code\Assignment-repo> git log --oneline
b84048e (HEAD -> master) Change for reset command
c2bccf6 Revert "Changes for revert,reset command"
7322c00 Changes for revert,reset command
8aac277 (origin/master) Changes Made Remotely
e868fb2 (test-branch, optional-branch) Updated file.txt with test-branch
c8bae01 Added a new file
PS G:\Saksham\Code\Assignment-repo> git reset --hard 8aac277
HEAD is now at 8aac277 Changes Made Remotely
PS G:\Saksham\Code\Assignment-repo> 
```