## **SYSTEM DESIGN LAB**

## **Git Basic Commands**

```
MINGW64:/c/Users/HP/Desktop/Git
HP@parvathy MINGW64 ~/Desktop/Git
$ git config --global user.name "[Parvathy]"
HP@parvathy MINGW64 ~/Desktop/Git
$ git config --global user.email "[parvthy0001@gmail.com]"
 HP@parvathy MINGW64 ~/Desktop/Git
$ git init
Initialized empty Git repository in C:/Users/HP/Desktop/Git/.git/
 HP@parvathy MINGW64 ~/Desktop/Git (master)
$ git status
On branch master
No commits yet
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)
HP@parvathy MINGW64 ~/Desktop/Git (master)
$ git add .
 HP@parvathy MINGW64 ~/Desktop/Git (master)
On branch master
No commits yet
Changes to be committed:

(use "git rm --cached <file>..." to unstage)
          new file: File 1.txt
new file: File 2.txt
HP@parvathy MINGW64 ~/Desktop/Git (master)
$ git commit -m "FIRST COMMIT"
[master (root-commit) 3bb8fe1] FIRST COMMIT
2 files changed, 2 insertions(+)
create mode 100644 File 1.txt
create mode 100644 File 2.txt
 IP@parvathy MINGW64 ~/Desktop/Git (master)
$ git status
On branch master
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)
 HP@parvathy MINGW64 ~/Desktop/Git (master)
$ git add File 3.txt
fatal: pathspec 'File' did not match any files
```

```
NINGW64:/c/Users/HP/Desktop/Git
  IP@parvathy MINGW64 ~/Desktop/Git (master)
$ git status
 On branch master
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)
 HP@parvathy MINGW64 ~/Desktop/Git (master)
 $ git add .
 HP@parvathy MINGW64 ~/Desktop/Git (master)
$ git status
 On branch master
Changes to be committed:

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

new file: File 3.txt
HP@parvathy MINGW64 ~/Desktop/Git (master)
$ git commit -m "SECOND COMMIT"
[master 473a1db] SECOND COMMIT
1 file changed, 1 insertion(+)
create mode 100644 File 3.txt
  P@parvathy MINGW64 ~/Desktop/Git (master)
S git log

commit 473a1db165b90a1422421d82270949641c526ba8 (HEAD -> master)

Author: [Parvathy] <[parvthy0001@gmail.com]>

Date: Sun Jul 18 06:49:52 2021 +0530
       SECOND COMMIT
Commit 3bb8fe1649fd9276cba721a86b36f2960361283c
Author: [Parvathy] <[parvthy0001@gmail.com]>
Date: Sun Jul 18 06:47:58 2021 +0530
      FIRST COMMIT
 HP@parvathy MINGW64 ~/Desktop/Git (master)
$ git checkout ^C
HP@parvathy MINGW64 ~/Desktop/Git (master)
$ git checkout 473a1db165b90a1422421d82270949641c526ba8
Note: switching to '473a1db165b90a1422421d82270949641c526ba8'.
You are in 'detached HEAD' state. You can look around, make experimental
changes and commit them, and you can discard any commits you make in this
state without impacting any branches by switching back to a branch.
If you want to create a new branch to retain commits you create, you may do so (now or later) by using -c with the switch command. Example:
   git switch -c <new-branch-name>
Or undo this operation with:
```

```
MINGW64:/c/Users/HP/Desktop/Git
   git switch -
Turn off this advice by setting config variable advice.detachedHead to false
HEAD is now at 473a1db SECOND COMMIT
 HP@parvathy MINGW64 ~/Desktop/Git ((473a1db...))
$ git log

commit 473a1db165b90a1422421d82270949641c526ba8 (HEAD, master)

Author: [Parvathy] <[parvthy0001@gmail.com]>

Date: Sun Jul 18 06:49:52 2021 +0530
      SECOND COMMIT
commit 3bb8fe1649fd9276cba721a86b36f2960361283c
Author: [Parvathy] <[parvthy0001@gmail.com]>
Date: Sun Jul 18 06:47:58 2021 +0530
      FIRST COMMIT
HP@parvathy MINGW64 ~/Desktop/Git ((473a1db...))
$ git log --all --decorate --oneline --graph
* 473a1db (HEAD, master) SECOND COMMIT
* 3bb8fe1 FIRST COMMIT
HP@parvathy MINGW64 ~/Desktop/Git ((473aldb...))
$ git branch feature
 HP@parvathy MINGW64 ~/Desktop/Git ((473a1db...))
$ git branch
     HEAD detached at 473a1db)
   feature
  master
HP@parvathy MINGW64 ~/Desktop/Git ((473a1db...))
$ git branch add
 HP@parvathy MINGW64 ~/Desktop/Git ((473a1db...))
$ git branch
   (HEAD detached at 473a1db)
   add
   feature
   master
 HP@parvathy MINGW64 ~/Desktop/Git ((473a1db...))
$ git checkout feature
Switched to branch 'feature'
 HP@parvathy MINGW64 ~/Desktop/Git (feature)
$ git log --all --decorate --oneline --graph

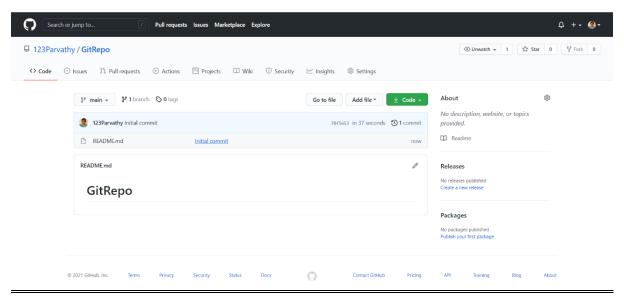
* 473a1db (HEAD -> feature, master, add) SECOND COMMIT

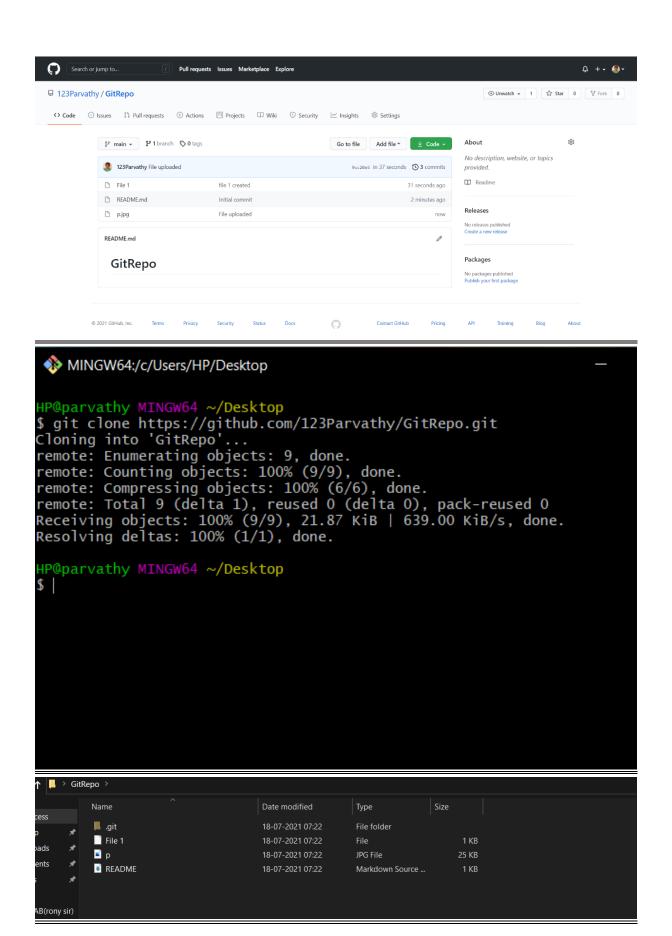
* 3bb8fe1 FIRST COMMIT
HP@parvathy MINGW64 ~/Desktop/Git (feature)
$ git checkout add
Switched to branch 'add'
```

```
MINGW64:/c/Users/HP/Desktop/Git
HP@parvathy MINGW64 ~/Desktop/Git (add)
$ git log --all --decorate --oneline --graph
* 473a1db (HEAD -> add, master, feature) SECOND COMMIT
* 3bb8fe1 FIRST COMMIT
HP@parvathy MINGW64 ~/Desktop/Git (add)
$ git status
On branch add
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)
HP@parvathy MINGW64 ~/Desktop/Git (add)
$ git add .
HP@parvathy MINGW64 ~/Desktop/Git (add)
$ git commit -m "Added a file"
[add 30b0099] Added a file
 1 file changed, 1 insertion(+) create mode 100644 File 4.txt
HP@parvathy MINGW64 ~/Desktop/Git (add)
$ git status
On branch add
nothing to commit, working tree clean
HP@parvathy MINGW64 ~/Desktop/Git (add)
$ git log
commit 30b0099870d0f9c12ef9da38b733b977d0c9f6ec (HEAD -> add)
Author: [Parvathy] <[parvthy0001@gmail.com]>
         Sun Jul 18 06:55:59 2021 +0530
Date:
     Added a file
commit 473a1db165b90a1422421d82270949641c526ba8 (master, feature)
Author: [Parvathy] <[parvthy0001@gmail.com]>
Date: Sun Jul 18 06:49:52 2021 +0530
     SECOND COMMIT
commit 3bb8fe1649fd9276cba721a86b36f2960361283c
Author: [Parvathy] <[parvthy0001@gmail.com]>
Date: Sun Jul 18 06:47:58 2021 +0530
     FIRST COMMIT
HP@parvathy MINGW64 ~/Desktop/Git (add)
$ git checkout master
Switched to branch 'master'
HP@parvathy MINGW64 ~/Desktop/Git (master)
$ git merge add
Updating 473a1db..30b0099
Fast-forward
 File 4.txt | 1 +
```

```
HP@parvathy MINGW64 ~/Desktop/Git (master)
$ git log --all --decorate --oneline --graph
 30b0099 (HEAD -> master, add) Added a file
* 473a1db (feature) SECOND COMMIT
* 3bb8fe1 FIRST COMMIT
HP@parvathy MINGW64 ~/Desktop/Git (master)
$ git branch -d add
Deleted branch add (was 30b0099).
HP@parvathy MINGW64 ~/Desktop/Git (master)
$ git branch
  feature
 master
HP@parvathy MINGW64 ~/Desktop/Git (master)
$ git branch -d feature
Deleted branch feature (was 473a1db).
HP@parvathy MINGW64 ~/Desktop/Git (master)
$ git branch
HP@parvathy MINGW64 ~/Desktop/Git (master)
$ git log --all --decorate --oneline --graph
* 30b0099 (HEAD -> master) Added a file
* 473a1db SECOND COMMIT
 3bb8fe1 FIRST COMMIT
HP@parvathy MINGW64 ~/Desktop/Git (master)
```

## **Creating a git repository**





```
MINGW64:/c/Users/HP/Desktop/GitRepo
 HP@parvathy MINGW64 ~/Desktop/GitRepo (main)
$ git status
On branch main
Your branch is up to date with 'origin/main'.
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)
 HP@parvathy MINGW64 ~/Desktop/GitRepo (main)
$ git add .
HP@parvathy MINGW64 ~/Desktop/GitRepo (main)
$ git commit -m "File 2 is added"
[main 823e76f] File 2 is added
 1 file changed, 5 insertions(+) create mode 100644 File 2.txt
 HP@parvathy MINGW64 ~/Desktop/GitRepo (main)
$ git log

commit 823e76f7dca443918d2c985e936b2b52247039ec (HEAD -> main)

Author: [Parvathy] <[parvthy0001@gmail.com]>

Date: Sun Jul 18 07:24:20 2021 +0530
      File 2 is added
commit 9cc20e53c627608279c13bdfca9a84f6dab3e551 (origin/main, origin/HEAD)
Author: 123Parvathy <83871686+123Parvathy@users.noreply.github.com>
Date: Sun Jul 18 07:22:11 2021 +0530
      File uploaded
commit 3e091853eaca8d4465823a9cbd918a204f31344a
Author: 123Parvathy <83871686+123Parvathy@users.noreply.github.com>
            Sun Jul 18 07:21:03 2021 +0530
Date:
      file 1 created
commit 70f56531ff312f5fd272c1fa7907fd612b68b684
Author: 123Parvathy <83871686+123Parvathy@users.noreply.github.com>
Date: Sun Jul 18 07:19:31 2021 +0530
      Initial commit
:...skipping...
commit 823e76f7dca443918d2c985e936b2b52247039ec (HEAD -> main)
Author: [Parvathy] <[parvthy0001@gmail.com]>
Date: Sun Jul 18 07:24:20 2021 +0530
      File 2 is added
commit 9cc20e53c627608279c13bdfca9a84f6dab3e551 (origin/main, origin/HEAD)
Author: 123Parvathy <83871686+123Parvathy@users.noreply.github.com>
Date: Sun Jul 18 07:22:11 2021 +0530
      File uploaded
```

```
MINGW64:/c/Users/HP/Desktop/GitRepo
              Sun Jul 18 07:24:20 2021 +0530
Date:
       File 2 is added
commit 9cc20e53c627608279c13bdfca9a84f6dab3e551 (origin/main, origin/HEAD)
Author: 123Parvathy <83871686+123Parvathy@users.noreply.github.com>
Date: Sun Jul 18 07:22:11 2021 +0530
       File uploaded
commit 3e091853eaca8d4465823a9cbd918a204f31344a
Author: 123Parvathy <83871686+123Parvathy@users.noreply.github.com>
Date: Sun Jul 18 07:21:03 2021 +0530
       file 1 created
commit 70f56531ff312f5fd272c1fa7907fd612b68b684
Author: 123Parvathy <83871686+123Parvathy@users.noreply.github.com>
Date: Sun Jul 18 07:19:31 2021 +0530
       Initial commit
 HP@parvathy MINGW64 ~/Desktop/GitRepo (main)
```

```
MINGW64:/c/Users/HP/Desktop/GitRepo (main)

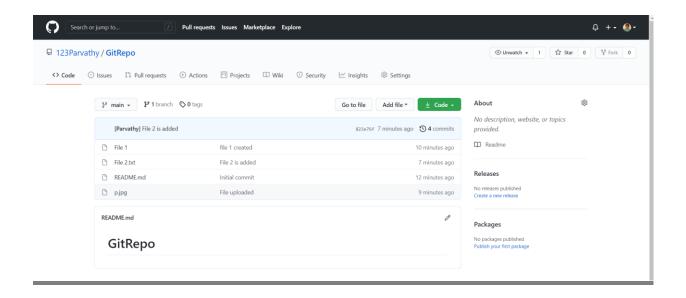
$ git remote add emp https://github.com/123Parvathy/GitRepo.git

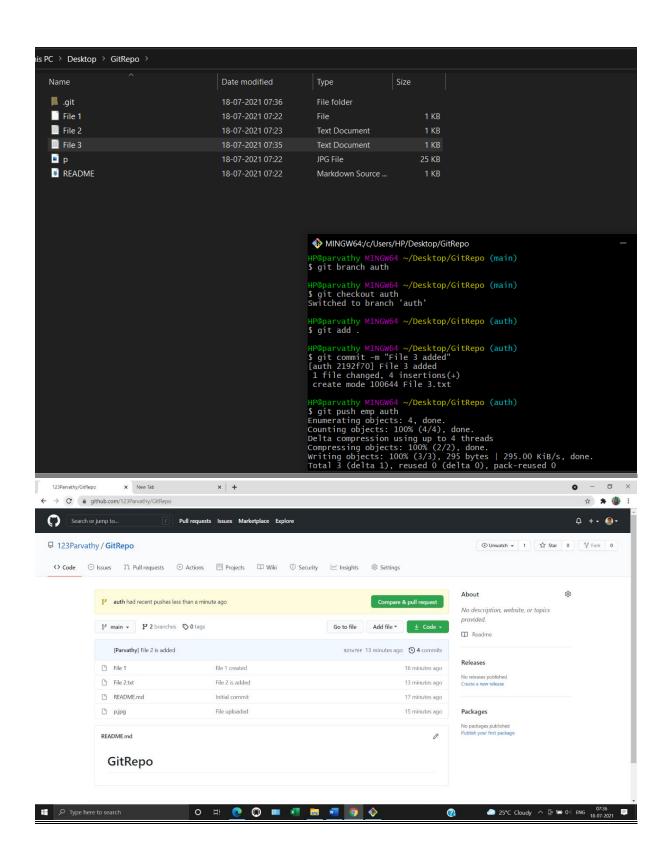
HP@parvathy MINGW64 ~/Desktop/GitRepo (main)

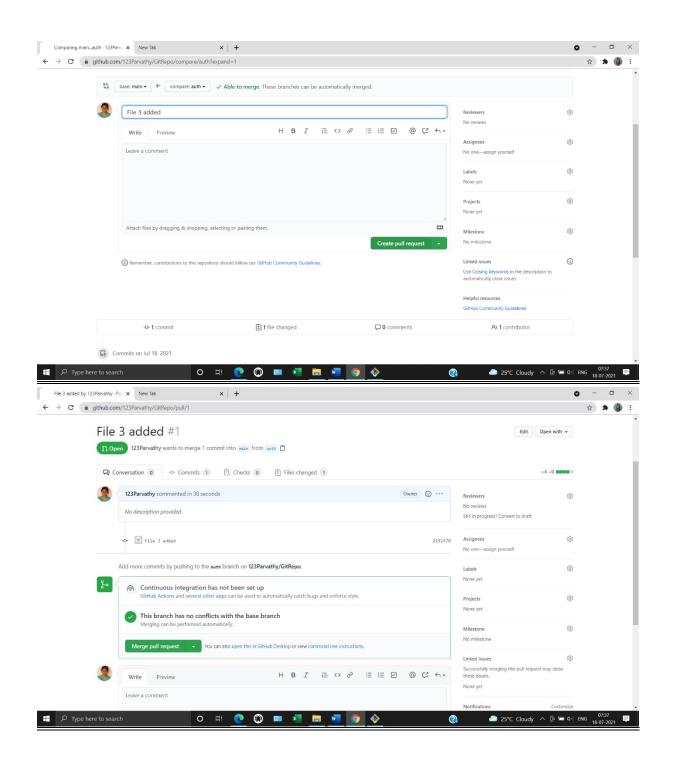
$ git push emp main
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 365 bytes | 365.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/123Parvathy/GitRepo.git
9cc20e5..823e76f main -> main

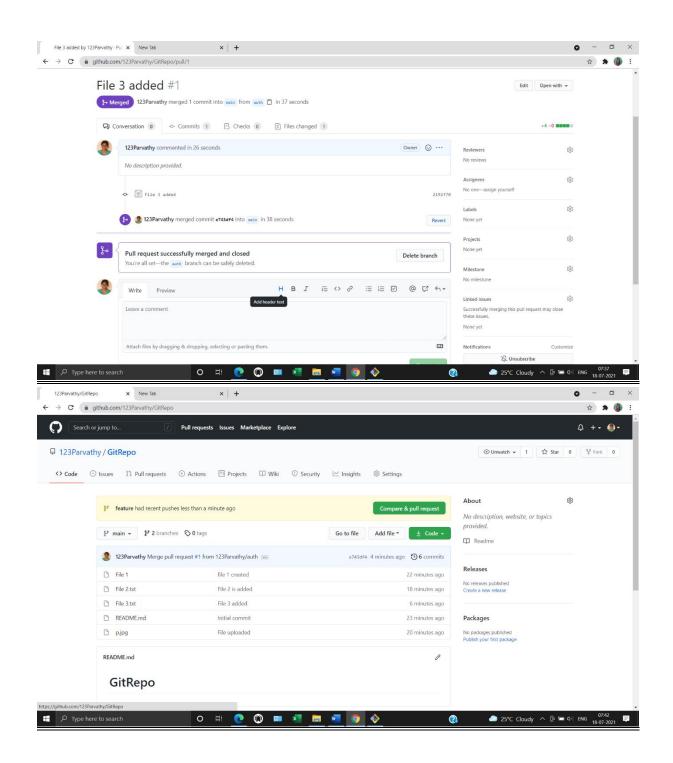
HP@parvathy MINGW64 ~/Desktop/GitRepo (main)

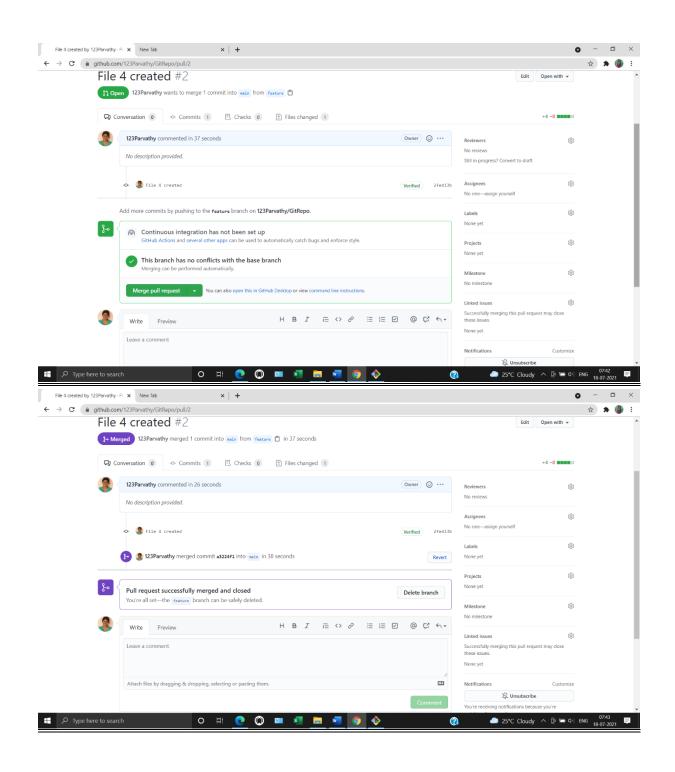
$ |
```

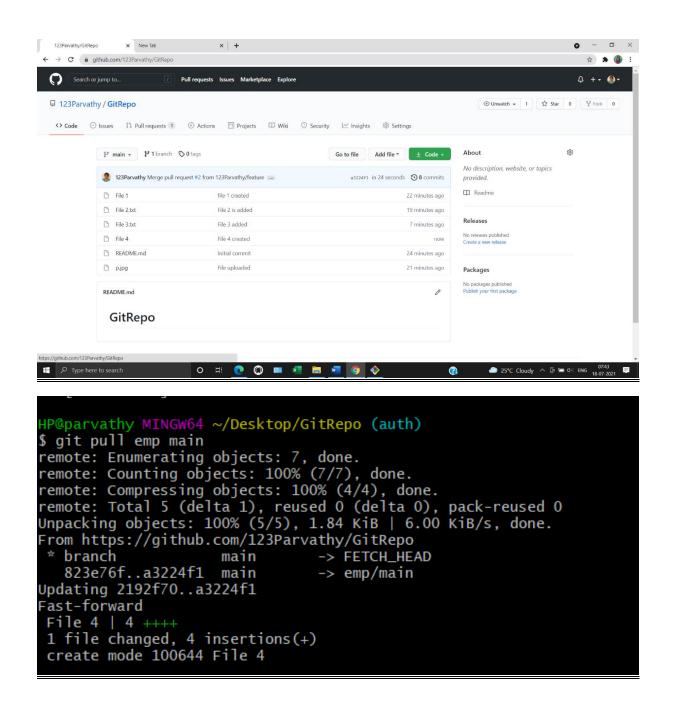








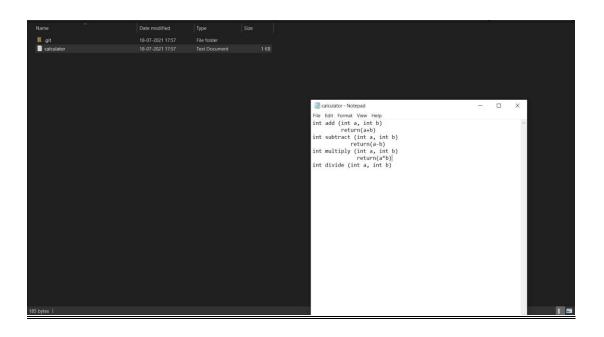




Name	Date modified	Туре	Size
.git	18-07-2021 07:45	File folder	
File 1	18-07-2021 07:22	File	1 KB
File 2	18-07-2021 07:23	Text Document	1 KB
File 3	18-07-2021 07:35	Text Document	1 KB
File 4	18-07-2021 07:45	File	1 KB
<b>■</b> p	18-07-2021 07:22	JPG File	25 KB
■ README	18-07-2021 07:22	Markdown Source	1 KB

```
MINGW64:/c/Users/HP/Desktop/GitRepo
$ git branch feature
HP@parvathy MINGW64 ~/Desktop/GitRepo (main)
$ git checkout feature
Switched to branch 'feature'
HP@parvathy MINGW64 ~/Desktop/GitRepo (feature)
$ git checkout main
Switched to branch 'main'
Your branch is ahead of 'origin/main' by 1 commit.
  (use "git push" to publish your local commits)
HP@parvathy MINGW64 ~/Desktop/GitRepo (main)
$ git merge auth
Updating 823e76f..a3224f1
Fast-forward
 File 3.txt | 4 ++++
 File 4
             1 4 ++++
 2 files changed, 8 insertions(+)
 create mode 100644 File 3.txt
 create mode 100644 File 4
HP@parvathy MINGW64 ~/Desktop/GitRepo (main)
```

## **Stash command**



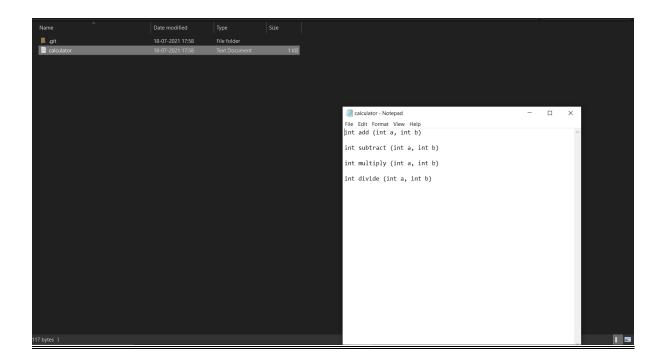
```
MINGW64:/c/Users/HP/Desktop/calcu
 HP@parvathy MINGW64 ~/Desktop/calcu (master)
$ git stash
You do not have the initial commit yet
HP@parvathy MINGW64 ~/Desktop/calcu (master)
$ git commit -m "commited"
[master (root-commit) 151217c] commited
1 file changed, 8 insertions(+)
create mode 100644 calculator.txt
 IP@parvathy MINGW64 ~/Desktop/calcu (master)
$ git stash
Saved working directory and index state WIP on master: 151217c commited
 HP@parvathy MINGW64 ~/Desktop/calcu (master)
$ git stash pop
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)
no changes added to commit (use "git add" and/or "git commit -a")
Dropped refs/stash@{0} (11217d8a3778068ab713ff5ef3a2fb6f3a2a20ee)
HP@parvathy MINGW64 ~/Desktop/calcu (master)
$ git stash
Saved working directory and index state WIP on master: 151217c commited
HP@parvathy MINGW64 ~/Desktop/calcu (master)
$ git stash pop
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)
no changes added to commit (use "git add" and/or "git commit -a")
Dropped refs/stash@{0} (86ad3c34108ae3247b69c62dabd83c0727e2284f)
 HP@parvathy MINGW64 ~/Desktop/calcu (master)
$ git stash
Saved working directory and index state WIP on master: 151217c commited
 HP@parvathy MINGW64 ~/Desktop/calcu (master)
$ git stash pop
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)
no changes added to commit (use "git add" and/or "git commit -a")
Dropped refs/stash@{0} (9b6f176cd367be01b16d3ced8ae1d113f46a9222)
 IP@parvathy MINGW64 ~/Desktop/calcu (master)
$ git stash
```



```
HP@parvathy MINGW64 ~/Desktop/calcu (master)
$ git stash
Saved working directory and index state WIP on master: 151217c commited

HP@parvathy MINGW64 ~/Desktop/calcu (master)
$ git stash list
stash@{0}: WIP on master: 151217c commited

HP@parvathy MINGW64 ~/Desktop/calcu (master)
$
```

Submitted by,

**Parvathy R** 

Roll no:13

S4 Mca Regular