```
PS C:\Users\Doaa Gamal\Desktop\sc> git init
Initialized empty Git repository in C:/Users/Doaa Gamal/Desktop/sc/.git/
PS C:\Users\Doaa Gamal\Desktop\sc> git status
On branch master
No commits yet
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        test.txt
nothing added to commit but untracked files present (use "git add" to track)
PS C:\Users\Doaa Gamal\Desktop\sc> git commit -m "initlize"
On branch master
Initial commit
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        test.txt
nothing added to commit but untracked files present (use "git add" to track)
PS C:\Users\Doaa Gamal\Desktop\sc> git add test
fatal: pathspec 'test' did not match any files
PS C:\Users\Doaa Gamal\Desktop\sc<mark>> git add test.txt</mark>
PS C:\Users\Doaa Gamal\Desktop\sc> git status
On branch master
No commits yet
Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file: test.txt
PS C:\Users\Doaa Gamal\Desktop\sc> git commit -m "initlize"
[master (root-commit) 295f7d6] initlize
 1 file changed, 0 insertions(+), 0 deletions(-)
```

```
create mode 100644 test.txt
PS C:\Users\Doaa Gamal\Desktop\s<mark>c> git commit -am</mark> "add line 1"
[master 8332653] add line 1
1 file changed, 1 insertion(+)
PS C:\Users\Doaa Gamal\Desktop\sc> git log --oneline
8332653 (HEAD -> master) add line 1
295f7d6 initlize
PS C:\Users\Doaa Gamal\Desktop\sc> 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: test.txt
no changes added to commit (use "git add" and/or "git commit -a")
PS C:\Users\Doaa Gamal\Desktop\sc> git diff
diff --git a/test.txt b/test.txt
index 16d97b5..72eeaf7 100644
--- a/test.txt
+++ b/test.txt
@@ -1 +1,2 @@
-hiii
\ No newline at end of file
+hiii
+2222222
\ No newline at end of file
PS C:\Users\Doaa Gamal\Desktop\sc> git commit -am "add line 2"
[master 084a630] add line 2
1 file changed, 2 insertions(+), 1 deletion(-)
PS C:\Users\Doaa Gamal\Desktop\sc> git diff
PS C:\Users\Doaa Gamal\Desktop\sc>
\ No newline at end of file
PS C:\Users\Doaa Gamal\Desktop\sc> git commit -am "add line 2"
[master 084a630] add line 2
1 file changed, 2 insertions(+), 1 deletion(-)
PS C:\Users\Doaa Gamal\Desktop\sc> git diff
PS C:\Users\Doaa Gamal\Desktop\sc> git remote add origin https://github.com/Doooaa/sc_lab1.git
```

PS C:\Users\Doaa Gamal\Desktop\sc> git branch -M main

PS C:\Users\Doaa Gamal\Desktop\sc> git push -u origin main

Enumerating objects: 9, done.

Counting objects: 100% (9/9), done.

Delta compression using up to 12 threads

Compressing objects: 100% (3/3), done.

Writing objects: 100% (9/9), 623 bytes | 311.00 KiB/s, done.

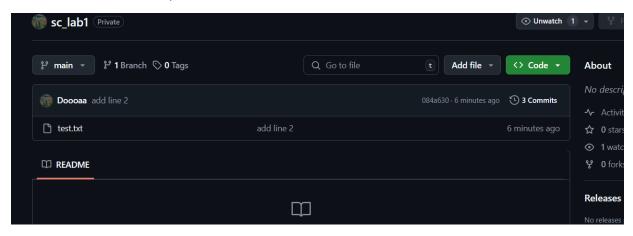
Total 9 (delta 0), reused 0 (delta 0), pack-reused 0

To https://github.com/Doooaa/sc_lab1.git

* [new branch] main -> main

branch 'main' set up to track 'origin/main'.

PS C:\Users\Doaa Gamal\Desktop\sc>



----- remote to local -----

https://github.com/leachim6/hello-world

C:\Users\Doaa Gamal\Desktop\hello world>git clone git@github.com:leachim6/hello-world.git

Cloning into 'hello-world'...

git@github.com: Permission denied (publickey).

fatal: Could not read from remote repository.

Please make sure you have the correct access rights and the repository exists.

C:\Users\Doaa Gamal\Desktop\hello world>git clone https://github.com/leachim6/hello-world.git

Cloning into 'hello-world'...

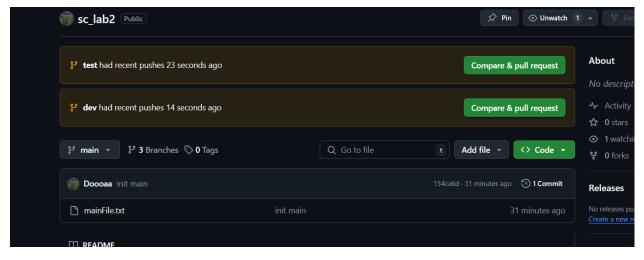
 ${\tt remote:} \ {\tt Enumerating \ objects:} \ 7802, \ {\tt done.}$

remote: Counting objects: 100% (109/109), done.

```
remote: Total 7802 (delta 74), reused 41 (delta 41), pack-reused 7693 (from 4)
Receiving objects: 100% (7802/7802), 5.17 MiB | 2.02 MiB/s, done.
Resolving deltas: 100% (4037/4037), done.
PS C:\Users\Doaa Gamal\Desktop\sc> git pull
remote: Enumerating objects: 4, done.
remote: Counting objects: 100% (4/4), 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), 950 bytes | 118.00 KiB/s, done.
From https://github.com/Doooaa/sc_lab1
   084a630..ad9ae64 main
                              -> origin/main
Updating 084a630..ad9ae64
Fast-forward
 file-2 | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 file-2
PS C:\Users\Doaa Gamal\Desktop\sc>
                               ---lab 2----
```

git push origin branch_name

remote: Compressing objects: 100% (68/68), done.



PS C:\Users\Doaa Gamal\Desktop\lab2> git add .

 $PS C:\Users\Doaa \Gamal\Desktop\lab2> \ git \ commit \ -m \ "init \ main"$

[master (root-commit) 154ca6d] init main

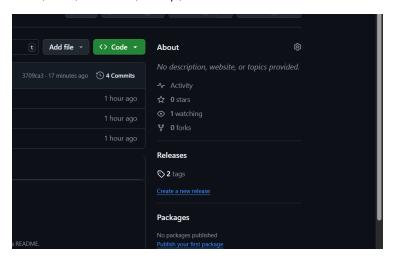
```
1 file changed, 1 insertion(+)
 create mode 100644 mainFile.txt
PS C:\Users\Doaa Gamal\Desktop\lab2> git branch dev
PS C:\Users\Doaa Gamal\Desktop\lab2> git branch
  dev
* master
PS C:\Users\Doaa Gamal\Desktop\lab2> git branch test
PS C:\Users\Doaa Gamal\Desktop\lab2> git branch
  dev
* master
 Test
    ----- push local repo to remote repo
PS C:\Users\Doaa Gamal\Desktop\lab2> git remote add origin https://github.com/Doooaa/sc_lab2.git
PS C:\Users\Doaa Gamal\Desktop\lab2> git branch -M main
PS C:\Users\Doaa Gamal\Desktop\lab2> git push -u origin
fatal: The current branch main has no upstream branch.
To push the current branch and set the remote as upstream, use
    git push --set-upstream origin main
To have this happen automatically for branches without a tracking
upstream, see 'push.autoSetupRemote' in 'git help config'.
PS C:\Users\Doaa Gamal\Desktop\lab2> git push
fatal: The current branch main has no upstream branch.
To push the current branch and set the remote as upstream, use
    git push --set-upstream origin main
To have this happen automatically for branches without a tracking
upstream, see 'push.autoSetupRemote' in 'git help config'.
PS C:\Users\Doaa Gamal\Desktop\lab2> git push -u origin main
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 213 bytes | 71.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
```

```
To https://github.com/Doooaa/sc_lab2.git
* [new branch]
                    main -> main
branch 'main' set up to track 'origin/main'.
# add file for each branch
PS C:\Users\Doaa Gamal\Desktop\lab2> git switch dev
Switched to branch 'dev'
PS C:\Users\Doaa Gamal\Desktop\lab2> git commit -am "add dev-file to dev branch"
On branch dev
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        devFile.text
nothing added to commit but untracked files present (use "git add" to track)
PS C:\Users\Doaa Gamal\Desktop\lab2> git add .
PS C:\Users\Doaa Gamal\Desktop\lab2> git commit -m "add dev-file to dev branch"
[dev 98ebe9f] add dev-file to dev branch
1 file changed, 1 insertion(+)
create mode 100644 devFile.text
PS C:\Users\Doaa Gamal\Desktop\lab2> git switch test
Switched to branch 'test'
PS C:\Users\Doaa Gamal\Desktop\lab2> git add .
PS C:\Users\Doaa Gamal\Desktop\lab2> git commit -am "add test-file to test branch"
[test bf9c44a] add test-file to test branch
1 file changed, 1 insertion(+)
PS C:\Users\Doaa Gamal\Desktop\lab2> git log --oneline
bf9c44a (HEAD -> test) add test-file to test branch
154ca6d (origin/main, main) init main
# push branch dev /test to remote repo
PS C:\Users\Doaa Gamal\Desktop\lab2> git push origin test
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 12 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 286 bytes | 286.00 KiB/s, done.
```

```
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
remote:
remote: Create a pull request for 'test' on GitHub by visiting:
            https://github.com/Doooaa/sc_lab2/pull/new/test
remote:
remote:
To https://github.com/Doooaa/sc_lab2.git
* [new branch]
                   test -> test
PS C:\Users\Doaa Gamal\Desktop\lab2> git push origin dev
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 12 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 284 bytes | 142.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
remote:
remote: Create a pull request for 'dev' on GitHub by visiting:
remote:
            https://github.com/Doooaa/sc_lab2/pull/new/dev
remote:
To https://github.com/Doooaa/sc_lab2.git
* [new branch]
                    dev -> dev
# merge two pranch localy on main
PS C:\Users\Doaa Gamal\Desktop\lab2> git switch main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
PS C:\Users\Doaa Gamal\Desktop\lab2> git merge test
Updating 154ca6d..bf9c44a
Fast-forward
fileTest.txt | 1 +
1 file changed, 1 insertion(+)
create mode 100644 fileTest.txt
PS C:\Users\Doaa Gamal\Desktop\lab2> git merge dev
Merge made by the 'ort' strategy.
devFile.text | 1 +
1 file changed, 1 insertion(+)
create mode 100644 devFile.text
# after merge two pranch localy on main push it to remote repo
```

```
PS C:\Users\Doaa Gamal\Desktop\lab2> git add .
PS C:\Users\Doaa Gamal\Desktop\lab2> git commit -m "merge two branches locally then push remote repo"
On branch main
Your branch is ahead of 'origin/main' by 3 commits.
  (use "git push" to publish your local commits)
nothing to commit, working tree clean
PS C:\Users\Doaa Gamal\Desktop\lab2> git push
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 12 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (2/2), 333 bytes | 333.00 KiB/s, done.
Total 2 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/Doooaa/sc_lab2.git
  154ca6d..3709ca3 main -> main
# add version - vs annotated version & push
PS C:\Users\Doaa Gamal\Desktop\lab2> git tag v1
PS C:\Users\Doaa Gamal\Desktop\lab2> git tag -a v2 -m "add version 2"
PS C:\Users\Doaa Gamal\Desktop\lab2> git push v1
fatal: 'v1' does not appear to be a git repository
fatal: Could not read from remote repository.
Please make sure you have the correct access rights
and the repository exists.
PS C:\Users\Doaa Gamal\Desktop\lab2> git push origin v1
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/Doooaa/sc_lab2.git
* [new tag]
                    v1 -> v1
PS C:\Users\Doaa Gamal\Desktop\lab2> git push origin v2
Enumerating objects: 1, done.
Counting objects: 100% (1/1), done.
Writing objects: 100% (1/1), 159 bytes | 159.00 KiB/s, done.
Total 1 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/Doooaa/sc_lab2.git
* [new tag]
                  v2 -> v2
```

PS C:\Users\Doaa Gamal\Desktop\lab2>



Add collaborators:

