

```

eslam@eslam MINGW64 ~
$ git config --global user.email "eslam2001eee@gmail.com"

eslam@eslam MINGW64 ~
$ git config --global user.name "Engineer-Eslam"

eslam@eslam MINGW64 ~
$ mkdir -p "D:/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-Maliki"

eslam@eslam MINGW64 ~
$ cd "D:/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-Maliki"

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-Maliki
$ git init
Initialized empty Git repository in D:/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-Maliki/.git/

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-Maliki (master)
$ mkdir -p Assignment/"lab 00"

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-Maliki (master)
$ mkdir -p labs

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-Maliki (master)
$ for i in {0..8}; do mkdir -p labs/"lab $i"; done

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-Maliki (master)
$ cd labs/"lab 0"

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-Maliki/labs/lab 0 (master)
$ echo "Hello Git Lab 0" > text1.txt

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-Maliki/labs/lab 0 (master)
$ git add text1.txt
warning: in the working copy of 'labs/lab 0/text1.txt', LF will be replaced by CRLF the next time Git touches it

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-Maliki/labs/lab 0 (master)
$ git commit -m "Add text1.txt in lab 0"
[master (root-commit) 7efb30e] Add text1.txt in lab 0
1 file changed, 1 insertion(+)
create mode 100644 labs/lab 0/text1.txt

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-Maliki/labs/lab 0 (master)
$ git branch
* master

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-Maliki/labs/lab 0 (master)
$ git branch testing_branch

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-Maliki/labs/lab 0 (master)
$ git switch testing_branch
Switched to branch 'testing_branch'

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-Maliki/labs/lab 0 (testing_branch)
$ echo "Change in testing" >> text1.txt

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-Maliki/labs/lab 0 (testing_branch)
$ git add text1.txt
warning: in the working copy of 'labs/lab 0/text1.txt', LF will be replaced by CRLF the next time Git touches it

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-Maliki/labs/lab 0 (testing_branch)
$ git commit -m "Modify text1.txt in testing_branch"
[testing_branch de8bcf4] Modify text1.txt in testing_branch
1 file changed, 1 insertion(+)

```

```
eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (testing_branch)
$ git branch
  master
* testing_branch
```

```
eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (testing_branch)
$ git switch master
Switched to branch 'master'
```

```
eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (master)
$ git merge testing_branch
Updating 7efb30e..de8bcf4
Fast-forward
 labs/lab 0/text1.txt | 1 +
 1 file changed, 1 insertion(+)
```

```
eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (master)
$ git ls-files
text1.txt
```

```
eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (master)
$ git log
commit de8bcf45ad9cc994a926e512a5ebe22eb87fe7e6 (HEAD -> master, testing_branch)
Author: Engineer-Eslam <eslam2001eee@gmail.com>
Date: Sun Jul 27 01:28:14 2025 +0300
```

Modify text1.txt in testing_branch

```
commit 7efb30ea42a26f9d6ceb23c3f9740a11f73c2fd2
Author: Engineer-Eslam <eslam2001eee@gmail.com>
Date: Sun Jul 27 01:20:32 2025 +0300
```

Add text1.txt in lab 0

```
eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (master)
$ cat text1.txt
Hello Git Lab 0
Change in testing
```

```
eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (master)
$ echo "Second text file lab 0" >> text2.txt
```

```
eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (master)
$ git clean -dn
Would remove text2.txt
```

```
eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (master)
$ git ls-files
text1.txt
```

```
eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (master)
$ git clean -df
Removing text2.txt
```

```
eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (master)
$ git clean -dn
```

```
eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (master)
$ echo "Change in testing 2" >> text1.txt
```

```
eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (master)
$ cat text1.txt
Hello Git Lab 0
Change in testing
Change in testing 2
```

```
eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (master)
$ git restore text1.txt

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (master)
$ cat text1.txt
Hello Git Lab 0
Change in testing

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (master)
$ echo "file text3 in lab 0" > text3.txt

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (master)
$ git ls-files
text1.txt

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (master)
$ ls
text1.txt  text3.txt

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (master)
$ git add text3.txt
warning: in the working copy of 'labs/lab 0/text3.txt', LF will be replaced by CRLF the next time Git touches it

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (master)
$ git commit -m "Add text3.txt in lab 0"
[master de2b81c] Add text3.txt in lab 0
1 file changed, 1 insertion(+)
create mode 100644 labs/lab 0/text3.txt

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (master)
$ git ls-files
text1.txt
text3.txt

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (master)
$ ls
text1.txt  text3.txt

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (master)
$ git rm text3.txt
rm 'labs/lab 0/text3.txt'

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (master)
$ git ls-files
text1.txt

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (master)
$ ls
text1.txt

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (master)
$ git commit -m "Remove text3.txt from lab 0"
[master 339eddd] Remove text3.txt from lab 0
1 file changed, 1 deletion(-)
delete mode 100644 labs/lab 0/text3.txt
```

```
eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (master)
$ git log
commit 339eddd00bc8b3e589ce3a20ad43138a66f08f25 (HEAD -> master)
Author: Engineer-Eslam <eslam2001eee@gmail.com>
Date: Sun Jul 27 02:52:48 2025 +0300
```

Remove text3.txt from lab 0

```
commit de2b81cb6ceac854e969ebaa48f4c7c2ffa69702
Author: Engineer-Eslam <eslam2001eee@gmail.com>
Date: Sun Jul 27 02:27:44 2025 +0300
```

Add text3.txt in lab 0

```
commit de8bcf45ad9cc994a9226e512a5ebe22eb87fe7e6 (testing_branch)
Author: Engineer-Eslam <eslam2001eee@gmail.com>
Date: Sun Jul 27 01:28:14 2025 +0300
```

Modify text1.txt in testing_branch

```
commit 7efb30ea42a26f9d6ceb23c3f9740a11f73c2fd2
Author: Engineer-Eslam <eslam2001eee@gmail.com>
Date: Sun Jul 27 01:20:32 2025 +0300
```

Add text1.txt in lab 0

```
eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (master)
$ git checkout de2b81cb6ceac854e969ebaa48f4c7c2ffa69702
Note: switching to 'de2b81cb6ceac854e969ebaa48f4c7c2ffa69702'.
```

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:

```
git switch -
```

Turn off this advice by setting config variable advice.detachedHead to false

HEAD is now at de2b81c Add text3.txt in lab 0

```
eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 ((de2b81c...))
$ git switch -c recover_text3
Switched to a new branch 'recover_text3'
```

```
eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (recover_text3)
$ git ls-files
text1.txt
text3.txt
```

```
eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (recover_text3)
$ ls
text1.txt text3.txt
```

```
eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (recover_text3)
$ git switch master
Switched to branch 'master'
```

```
eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (master)
$ git merge recover_text3
Already up to date.
```

```
eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_A1-Maliki/labs/lab 0 (master)
$ git ls-files
text1.txt
```

```

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-
Maliki/labs/lab 0 (master)
$ ls
text1.txt

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-
Maliki/labs/lab 0 (master)
$ git checkout recover_text3 -- text3.txt

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-
Maliki/labs/lab 0 (master)
$ ls
text1.txt text3.txt

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-
Maliki/labs/lab 0 (master)
$ git add text3.txt

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-
Maliki/labs/lab 0 (master)
$ git commit -m "undo Remove file text3.txt from lab 0"
[master a5268cf] undo Remove file text3.txt from lab 0
1 file changed, 1 insertion(+)
create mode 100644 labs/lab 0/text3.txt

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-
Maliki/labs/lab 0 (master)
$ git ls-files
text1.txt
text3.txt

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-
Maliki/labs/lab 0 (master)
$ cd ../../

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-
Maliki (master)
$ git remote add origin https://github.com/Engineer-Eslam/Software_Engineer_Eslam_Al-Maliki.git

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-
Maliki (master)
$ git remote -v
origin https://github.com/Engineer-Eslam/Software_Engineer_Eslam_Al-Maliki.git (fetch)
origin https://github.com/Engineer-Eslam/Software_Engineer_Eslam_Al-Maliki.git (push)

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-
Maliki (master)
$ git push -u origin master
fatal: unable to access 'https://github.com/Engineer-Eslam/Software_Engineer_Eslam_Al-Maliki.git/':
Failed to connect to github.com port 443 after 21390 ms: Could not connect to server

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-
Maliki (master)
$ git push -u origin master
git: 'credential-manager-core' is not a git command. See 'git --help'.
git: 'credential-manager-core' is not a git command. See 'git --help'.
Enumerating objects: 17, done.
Counting objects: 100% (17/17), done.
Delta compression using up to 2 threads
Compressing objects: 100% (6/6), done.
writing objects: 100% (17/17), 1.22 KiB | 156.00 KiB/s, done.
Total 17 (delta 2), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (2/2), done.
To https://github.com/Engineer-Eslam/Software_Engineer_Eslam_Al-Maliki.git
 * [new branch] master -> master
branch 'master' set up to track 'origin/master'.

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-
Maliki (master)
$ for i in {1..8}; do touch "labs/lab $i/.gitkeep"; done

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-
Maliki (master)
$ touch Assignment/"lab 00"/.gitkeep

eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-
Maliki (master)
$ git add .

```

```
eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-Maliki (master)
```

```
$ git commit -m "Add .gitkeep files to keep all empty directories"
```

```
[master fd69b99] Add .gitkeep files to keep all empty directories
```

```
9 files changed, 0 insertions(+), 0 deletions(-)
```

```
create mode 100644 Assignment/lab 00/.gitkeep
```

```
create mode 100644 labs/lab 1/.gitkeep
```

```
create mode 100644 labs/lab 2/.gitkeep
```

```
create mode 100644 labs/lab 3/.gitkeep
```

```
create mode 100644 labs/lab 4/.gitkeep
```

```
create mode 100644 labs/lab 5/.gitkeep
```

```
create mode 100644 labs/lab 6/.gitkeep
```

```
create mode 100644 labs/lab 7/.gitkeep
```

```
create mode 100644 labs/lab 8/.gitkeep
```

```
eslam@eslam MINGW64 /d/Study/Level 4/First Semester/SoftwareEngineering/Software_Engineer_Eslam_Al-Maliki (master)
```

```
$ git push
```

```
git: 'credential-manager-core' is not a git command. See 'git --help'.
```

```
git: 'credential-manager-core' is not a git command. See 'git --help'.
```

```
Enumerating objects: 8, done.
```

```
Counting objects: 100% (8/8), done.
```

```
Delta compression using up to 2 threads
```

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

```
Writing objects: 100% (6/6), 479 bytes | 239.00 KiB/s, done.
```

```
Total 6 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
```

```
To https://github.com/Engineer-Eslam/Software_Engineer_Eslam_Al-Maliki.git
```

```
a5268cf..fd69b99 master -> master
```