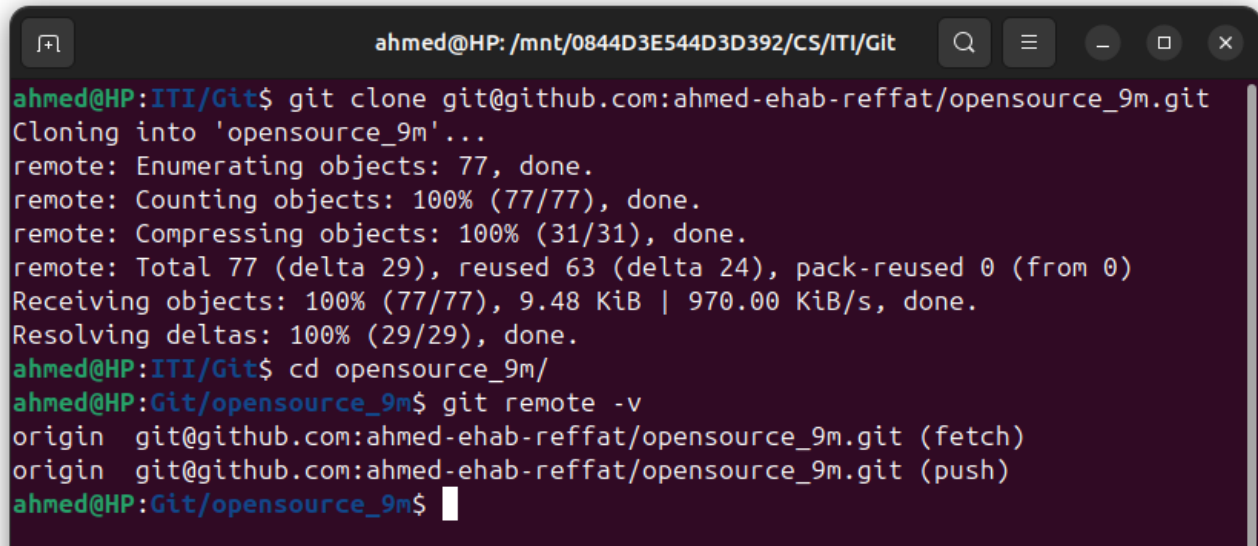


Git Lab-2

A terminal window with a dark background and light-colored text. The window title bar shows the path 'ahmed@HP: /mnt/0844D3E544D3D392/CS/ITI/Git'. The terminal content shows the execution of 'git clone' and 'git remote -v' commands. The clone command output shows progress for enumerating, counting, and compressing objects, and receiving deltas. The remote command output shows the origin remote configured for both fetch and push operations.

```
ahmed@HP:ITI/Git$ git clone git@github.com:ahmed-ehab-reffat/opensource_9m.git
Cloning into 'opensource_9m'...
remote: Enumerating objects: 77, done.
remote: Counting objects: 100% (77/77), done.
remote: Compressing objects: 100% (31/31), done.
remote: Total 77 (delta 29), reused 63 (delta 24), pack-reused 0 (from 0)
Receiving objects: 100% (77/77), 9.48 KiB | 970.00 KiB/s, done.
Resolving deltas: 100% (29/29), done.
ahmed@HP:ITI/Git$ cd opensource_9m/
ahmed@HP:Git/opensource_9m$ git remote -v
origin  git@github.com:ahmed-ehab-reffat/opensource_9m.git (fetch)
origin  git@github.com:ahmed-ehab-reffat/opensource_9m.git (push)
ahmed@HP:Git/opensource_9m$
```

```
ahmed@HP:Git/opensource_9m$ git checkout -b feature/update-files
Switched to a new branch 'feature/update-files'
ahmed@HP:Git/opensource_9m$ echo "edit-1" >> f1.txt
ahmed@HP:Git/opensource_9m$ git commit -am "first edit to f1.txt"
[feature/update-files 2c3b040] first edit to f1.txt
1 file changed, 1 insertion(+)
ahmed@HP:Git/opensource_9m$ echo "edit-2" >> f1.txt
ahmed@HP:Git/opensource_9m$ git commit -am "second edit to f1.txt"
[feature/update-files 6329823] second edit to f1.txt
1 file changed, 1 insertion(+)
ahmed@HP:Git/opensource_9m$ echo "edit-3" >> f1.txt
ahmed@HP:Git/opensource_9m$ git commit -am "third edit to f1.txt"
[feature/update-files 6bd7886] third edit to f1.txt
1 file changed, 1 insertion(+)
ahmed@HP:Git/opensource_9m$ git log --tree
fatal: unrecognized argument: --tree
ahmed@HP:Git/opensource_9m$ git log --graph
* commit 6bd7886b6cd4e4f47a29b85b0e3d4db90a0e5d3e (HEAD -> feature/update-files)
| Author: Ahmed Ehab <ahmedehab62003@gmail.com>
| Date: Sun Dec 28 16:31:22 2025 +0200
|
|     third edit to f1.txt
|
* commit 6329823e00e87699cc11a09a62cc6bafd3fba9f2
| Author: Ahmed Ehab <ahmedehab62003@gmail.com>
| Date: Sun Dec 28 16:31:01 2025 +0200
|
|     second edit to f1.txt
|
* commit 2c3b040fff346f4eacced522632554fd47cd81d8
| Author: Ahmed Ehab <ahmedehab62003@gmail.com>
| Date: Sun Dec 28 16:30:46 2025 +0200
|
|     first edit to f1.txt
|
* commit 66e3db4a535ae09098f2b73232ab138e38c076a7 (origin/master, origin/HEAD, master)
:
```

```
ahmed@HP:/mnt/0844D3E544D3D392/CS/ITI/Git/opensource_9m$ git rebase -i HEAD~3
[detached HEAD 813ebd5] edits to f1.txt
Date: Sun Dec 28 16:30:46 2025 +0200
1 file changed, 3 insertions(+)
Successfully rebased and updated refs/heads/feature/update-files.
ahmed@HP:/mnt/0844D3E544D3D392/CS/ITI/Git/opensource_9m$ git push
fatal: The current branch feature/update-files has no upstream branch.
To push the current branch and set the remote as upstream, use

    git push --set-upstream origin feature/update-files

To have this happen automatically for branches without a tracking
upstream, see 'push.autoSetupRemote' in 'git help config'.

ahmed@HP:/mnt/0844D3E544D3D392/CS/ITI/Git/opensource_9m$ git push origin feature/update-files
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 8 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 308 bytes | 308.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
remote:
remote: Create a pull request for 'feature/update-files' on GitHub by visiting:
remote:   https://github.com/ahmed-ehab-reffat/opensource_9m/pull/new/feature/update-files
remote:
To github.com:ahmed-ehab-reffat/opensource_9m.git
 * [new branch]      feature/update-files -> feature/update-files
ahmed@HP:/mnt/0844D3E544D3D392/CS/ITI/Git/opensource_9m$
```

```
ahmed@HP:/mnt/0844D3E544D3D392/CS/ITI/Git/opensource_9m$ echo "stashed" > mystash.txt
ahmed@HP:/mnt/0844D3E544D3D392/CS/ITI/Git/opensource_9m$ git add .
ahmed@HP:/mnt/0844D3E544D3D392/CS/ITI/Git/opensource_9m$ git status
On branch feature/update-files
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   mystash.txt

ahmed@HP:/mnt/0844D3E544D3D392/CS/ITI/Git/opensource_9m$ git stash
Saved working directory and index state WIP on feature/update-files: 813ebd5 edits to f1.txt
ahmed@HP:/mnt/0844D3E544D3D392/CS/ITI/Git/opensource_9m$ git status
On branch feature/update-files
nothing to commit, working tree clean
ahmed@HP:/mnt/0844D3E544D3D392/CS/ITI/Git/opensource_9m$
```

```
ahmed@HP: /mnt/0844D3E544D3D392/CS/ITI/Git/opensource_9m
ahmed@HP:Git/Lab2$ git checkout master
Switched to branch 'master'
Your branch is up to date with 'origin/master'.
ahmed@HP:Git/Lab2$ git log feature/update-files --oneline -n 2
813ebd5 (origin/feature/update-files, feature/update-files) edits to f1.txt
66e3db4 (HEAD -> master, origin/master, origin/HEAD) remove conf from master
ahmed@HP:Git/Lab2$ git checkout -b hotfix/fix-file
Switched to a new branch 'hotfix/fix-file'
ahmed@HP:Git/Lab2$ git cherry-pick 813ebd5
[hotfix/fix-file cf1d5ca] edits to f1.txt
Date: Sun Dec 28 16:30:46 2025 +0200
1 file changed, 3 insertions(+)
ahmed@HP:Git/Lab2$ git push -u origin hotfix/fix-file
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 8 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 306 bytes | 306.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
remote:
remote: Create a pull request for 'hotfix/fix-file' on GitHub by visiting:
remote:   https://github.com/ahmed-ehab-reffat/opensource_9m/pull/new/hotfix/fix-file
remote:
To github.com:ahmed-ehab-reffat/opensource_9m.git
 * [new branch]      hotfix/fix-file -> hotfix/fix-file
branch 'hotfix/fix-file' set up to track 'origin/hotfix/fix-file'.
ahmed@HP:Git/Lab2$
```

```
ahmed@HP: /mnt/0844D3E544D3D392/CS/ITI/Git/opensource_9m
ahmed@HP:Git/Lab2$ git checkout master
Switched to branch 'master'
Your branch is up to date with 'origin/master'.
ahmed@HP:Git/Lab2$ touch changes.txt
ahmed@HP:Git/Lab2$ git add .
ahmed@HP:Git/Lab2$ git commit -m "make changes in main"
[master 3215765] make changes in main
2 files changed, 0 insertions(+), 0 deletions(-)
create mode 100644 Git Lab lab2.docx
create mode 100644 changes.txt
ahmed@HP:Git/Lab2$ git log --oneline -n 2
3215765 (HEAD -> master) make changes in main
66e3db4 (origin/master, origin/HEAD) remove conf from master
ahmed@HP:Git/Lab2$ git checkout hotfix/fix-file
Switched to branch 'hotfix/fix-file'
Your branch is up to date with 'origin/hotfix/fix-file'.
ahmed@HP:Git/Lab2$ git rebase master
Successfully rebased and updated refs/heads/hotfix/fix-file.
```

```
ahmed@HP: /mnt/0844D3E544D3D392/CS/ITI/Git/opensource_9m
ahmed@HP:Git/Lab2$ git push -u origin hotfix/fix-file
To github.com:ahmed-ehab-reffat/opensource_9m.git
! [rejected]        hotfix/fix-file -> hotfix/fix-file (non-fast-forward)
error: failed to push some refs to 'github.com:ahmed-ehab-reffat/opensource_9m.git'
hint: Updates were rejected because the tip of your current branch is behind
hint: its remote counterpart. If you want to integrate the remote changes,
hint: use 'git pull' before pushing again.
hint: See the 'Note about fast-forwards' in 'git push --help' for details.
ahmed@HP:Git/Lab2$ git push origin hotfix/fix-file --force
Enumerating objects: 8, done.
Counting objects: 100% (8/8), done.
Delta compression using up to 8 threads
Compressing objects: 100% (5/5), done.
Writing objects: 100% (6/6), 14.74 KiB | 14.74 MiB/s, done.
Total 6 (delta 2), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (2/2), completed with 1 local object.
To github.com:ahmed-ehab-reffat/opensource_9m.git
+ cf1d5ca...fa572b7 hotfix/fix-file -> hotfix/fix-file (forced update)
ahmed@HP:Git/Lab2$
```

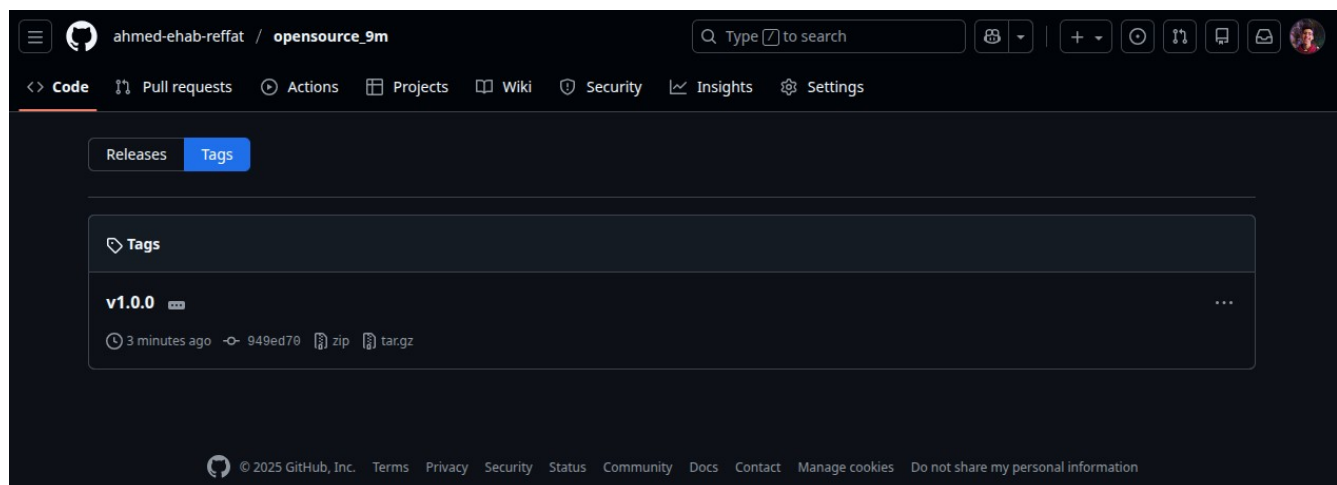
```
ahmed@HP: /mnt/0844D3E544D3D392/CS/ITI/Git/Lab2
ahmed@HP:Git/Lab2$ touch lost.txt
ahmed@HP:Git/Lab2$ git add .
ahmed@HP:Git/Lab2$ git commit -m "add lost.txt file"
[master 557118f] add lost.txt file
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 lost.txt
ahmed@HP:Git/Lab2$ git reset --hard HEAD~1
HEAD is now at 8442139 remove wierd files
ahmed@HP:Git/Lab2$ git reflog -n 3
8442139 (HEAD -> master, origin/master, origin/HEAD) HEAD@{0}: reset: moving to HEAD~1
557118f HEAD@{1}: commit: add lost.txt file
8442139 (HEAD -> master, origin/master, origin/HEAD) HEAD@{2}: commit: remove wierd files
ahmed@HP:Git/Lab2$ git reset --hard 557118f
HEAD is now at 557118f add lost.txt file
ahmed@HP:Git/Lab2$ git log --oneline -n 3
557118f (HEAD -> master) add lost.txt file
8442139 (origin/master, origin/HEAD) remove wierd files
681657b m
ahmed@HP:Git/Lab2$
```



```
ahmed@HP: /mnt/0844D3E544D3D392/CS/ITI/Git/Lab2
ahmed@HP:Git/Lab2$ git blame f1.txt
697adc22 (salmaa      2025-12-27 10:34:52 +0200 1) hello iti
3adffbdd (salmaa      2025-12-28 10:20:54 +0200 2) secret=conflict
fa572b7f (Ahmed Ehab  2025-12-28 16:30:46 +0200 3) edit-1
fa572b7f (Ahmed Ehab  2025-12-28 16:30:46 +0200 4) edit-2
fa572b7f (Ahmed Ehab  2025-12-28 16:30:46 +0200 5) edit-3
ahmed@HP:Git/Lab2$
```

```
ahmed@HP: /mnt/0844D3E544D3D392/CS/ITI/Git/Lab2
ahmed@HP:Git/Lab2$ git grep "edit-1"
f1.txt:edit-1
ahmed@HP:Git/Lab2$ git archive --format=zip --output=Lab2.zip HEAD
ahmed@HP:Git/Lab2$ ls
changes.txt  f3_no_ff  ft_iti      Lab2.zip    log2        pull        readme
f1.txt       f5.txt    'Git Lab lab2.docx' log1        lost.txt    pull33
ahmed@HP:Git/Lab2$ git config --global alias.lg "log --graph --decorate --all"
ahmed@HP:Git/Lab2$ git lg -n 3
* commit edc29594995bce24311d19537f1064c41de597c7 (HEAD -> master, origin/master, origin/HEAD)
| Author: Ahmed Ehab <ahmedehab62003@gmail.com>
| Date:   Sun Dec 28 22:43:28 2025 +0200
|
|     remove deleted files
|
* commit 557118f8e708ffaea21d5cccad7f775997b5f4af
| Author: Ahmed Ehab <ahmedehab62003@gmail.com>
| Date:   Sun Dec 28 22:35:25 2025 +0200
|
|     add lost.txt file
|
* commit 8442139367a593f2dbd05caf90ead96e72859de0
| Author: Ahmed Ehab <ahmedehab62003@gmail.com>
| Date:   Sun Dec 28 22:33:55 2025 +0200
```

```
ahmed@HP: /mnt/0844D3E544D3D392/CS/ITI/Git...
ahmed@HP:Git/Lab2$ git tag -a v1.0.0 -m "Release version 1.0.0"
ahmed@HP:Git/Lab2$ git push origin v1.0.0
Enumerating objects: 1, done.
Counting objects: 100% (1/1), done.
Writing objects: 100% (1/1), 173 bytes | 173.00 KiB/s, done.
Total 1 (delta 0), reused 0 (delta 0), pack-reused 0
To github.com:ahmed-ehab-reffat/opensource_9m.git
 * [new tag]          v1.0.0 -> v1.0.0
ahmed@HP:Git/Lab2$
```





ahmed@HP: /mnt/0844D3E544D3D392/CS,

```
ahmed@HP:Git/Lab2$ echo 'echo "Try git hooks of husky"' > .husky/pre-commit
bash: .husky/pre-commit: No such file or directory
```

```
ahmed@HP:Git/Lab2$ npm install husky --save-dev
```

```
added 1 package in 2s
```

```
1 package is looking for funding
  run `npm fund` for details
```

```
ahmed@HP:Git/Lab2$ npx husky init
```

```
ahmed@HP:Git/Lab2$ echo 'echo "Try git hooks of husky"' > .husky/pre-commit
```

```
ahmed@HP:Git/Lab2$ touch test.txt
```

```
ahmed@HP:Git/Lab2$ git add .
```

```
ahmed@HP:Git/Lab2$ git commit -m "add test.txt file"
```

```
Try git hooks of husky
```

```
[master 318c00b] add test.txt file
```

```
14 files changed, 183 insertions(+)
```

```
create mode 100644 .husky/pre-commit
```

```
create mode 100644 .~lock.Git Lab lab2.docx#
```

```
create mode 120000 node_modules/.bin/husky
```