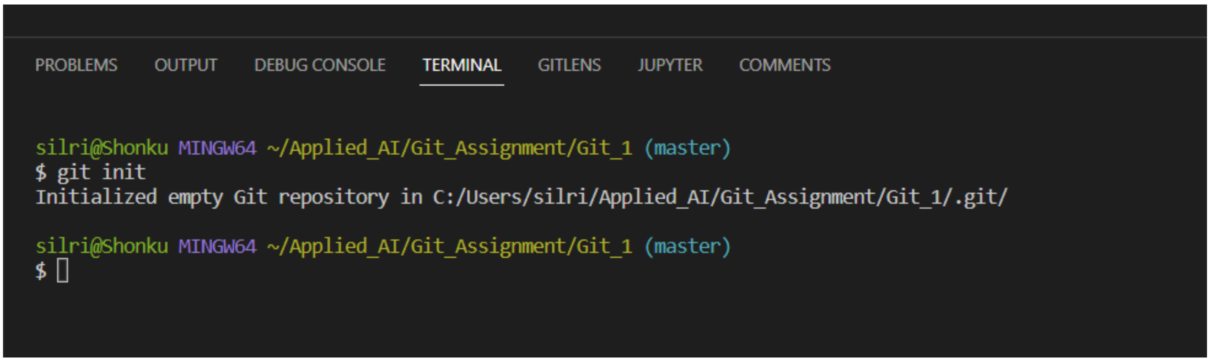
1. **git init**

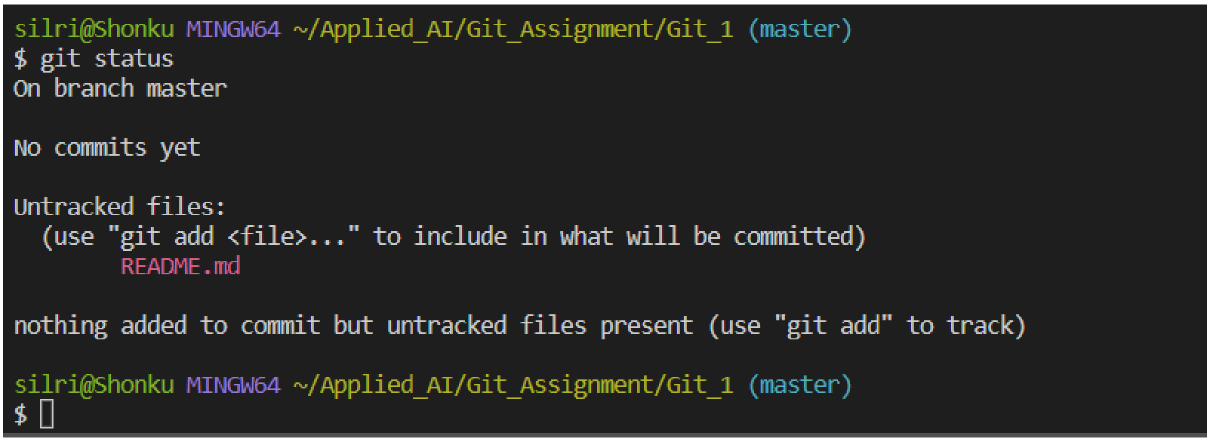
➔ *To initialize a folder as a git repository.*



```
silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/Git_1 (master)
$ git init
Initialized empty Git repository in C:/Users/silri/Applied_AI/Git_Assignment/Git_1/.git/

silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/Git_1 (master)
$
```

2. **git status**

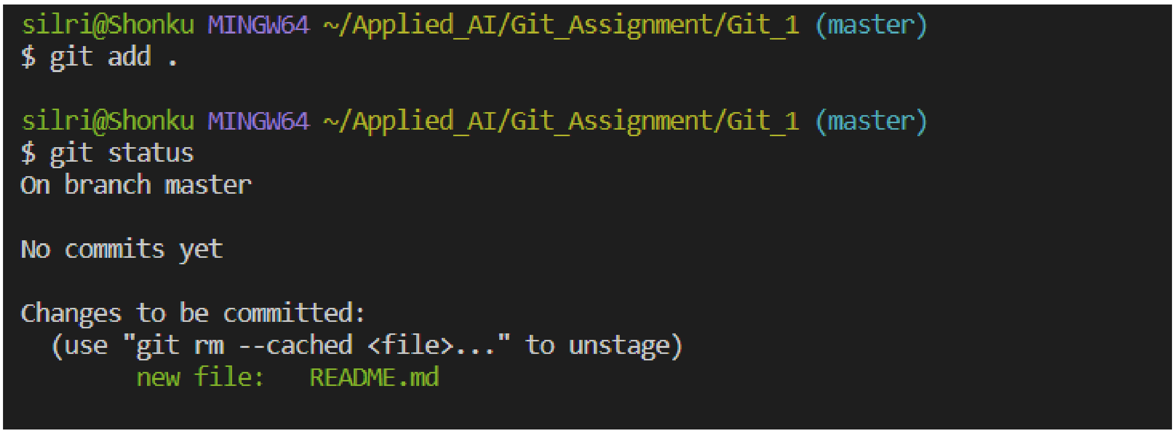
➔ *To check any untracked changes in the files.*



```
silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/Git_1 (master)
$ git status
On branch master

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        README.md

nothing added to commit but untracked files present (use "git add" to track)

silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/Git_1 (master)
$
```

3. **git add .**

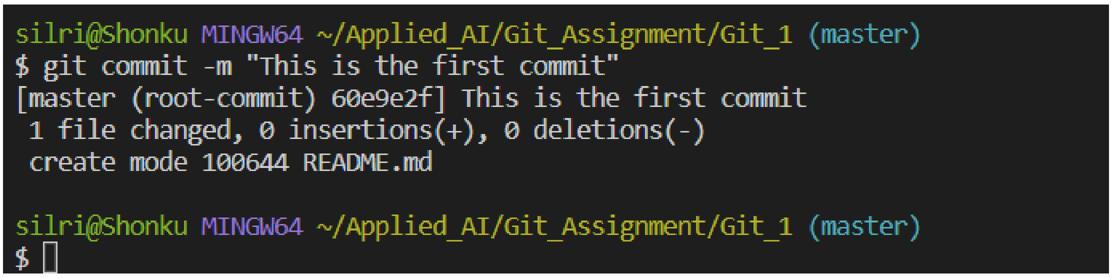
➔ *Start tracking the changes inside a file.*



```
silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/Git_1 (master)
$ git add .

silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/Git_1 (master)
$ git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   README.md
```

4. **git commit -m “<commit message>”**

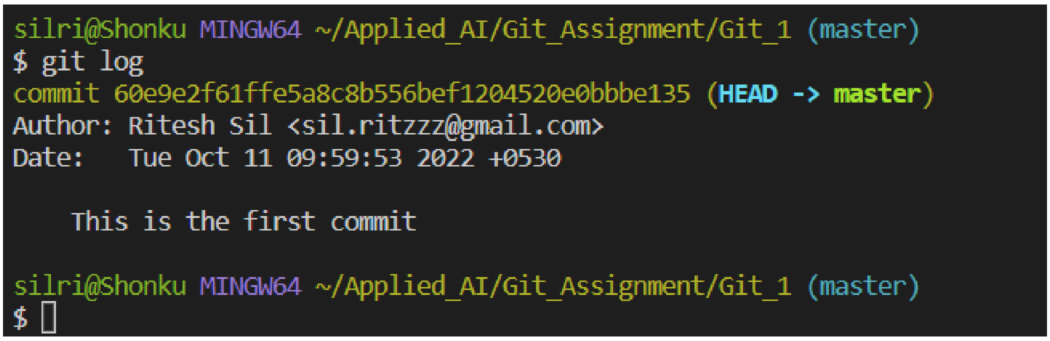
➔ *Commit the changes inside a file and stage it.*



```
silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/Git_1 (master)
$ git commit -m "This is the first commit"
[master (root-commit) 60e9e2f] This is the first commit
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 README.md

silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/Git_1 (master)
$
```

5. **git log**

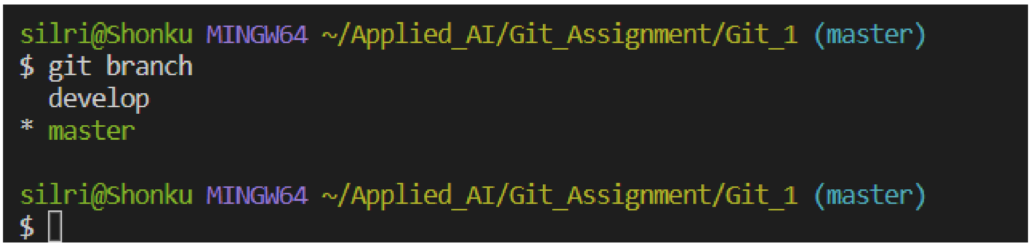
➔ *Check the last operations as form of log*



```
silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/Git_1 (master)
$ git log
commit 60e9e2f61ffe5a8c8b556bef1204520e0bbbe135 (HEAD -> master)
Author: Ritesh Sil <sil.ritzzz@gmail.com>
Date:   Tue Oct 11 09:59:53 2022 +0530

    This is the first commit

silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/Git_1 (master)
$
```

6. **git branch <branch name>**

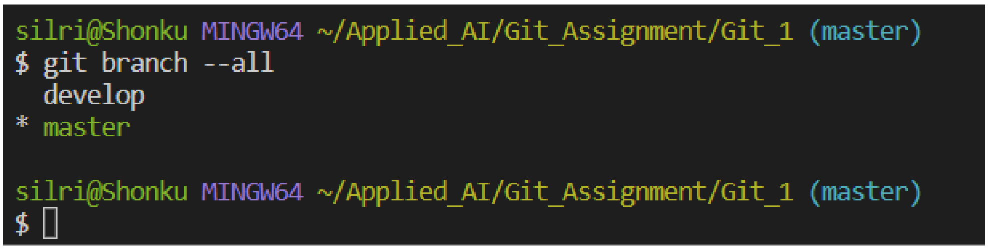
➔ *Create a branch*



```
silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/Git_1 (master)
$ git branch
  develop
* master

silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/Git_1 (master)
$
```

7. git branch –all

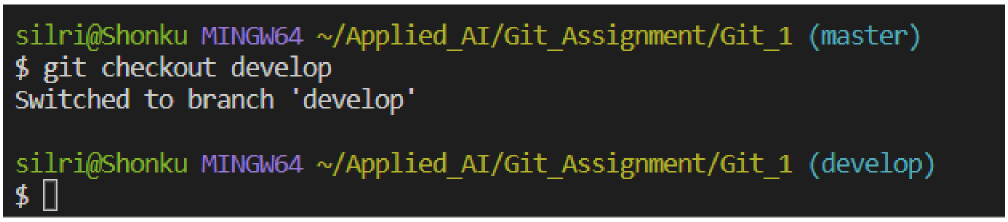
➔ *Check all the available branches*



```
silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/Git_1 (master)
$ git branch --all
  develop
* master

silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/Git_1 (master)
$
```

8. git checkout develop

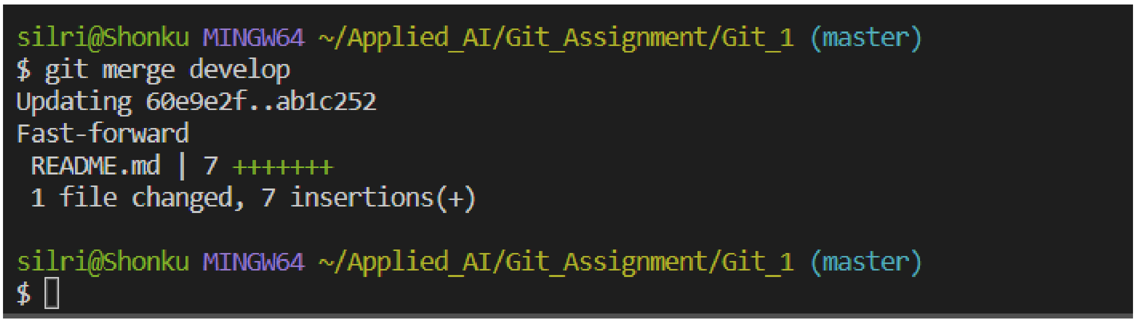
➔ *Change to develop branch*



```
silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/Git_1 (master)
$ git checkout develop
Switched to branch 'develop'

silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/Git_1 (develop)
$
```

9. git merge <branch name>

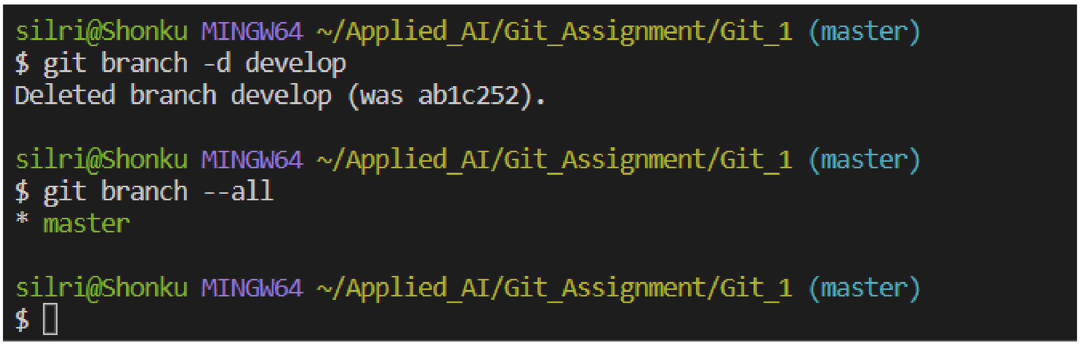
➔ *Merge the codes of two branches*



```
silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/Git_1 (master)
$ git merge develop
Updating 60e9e2f..ab1c252
Fast-forward
 README.md | 7 +++++++
 1 file changed, 7 insertions(+)

silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/Git_1 (master)
$
```

10. git branch -d <branch name>

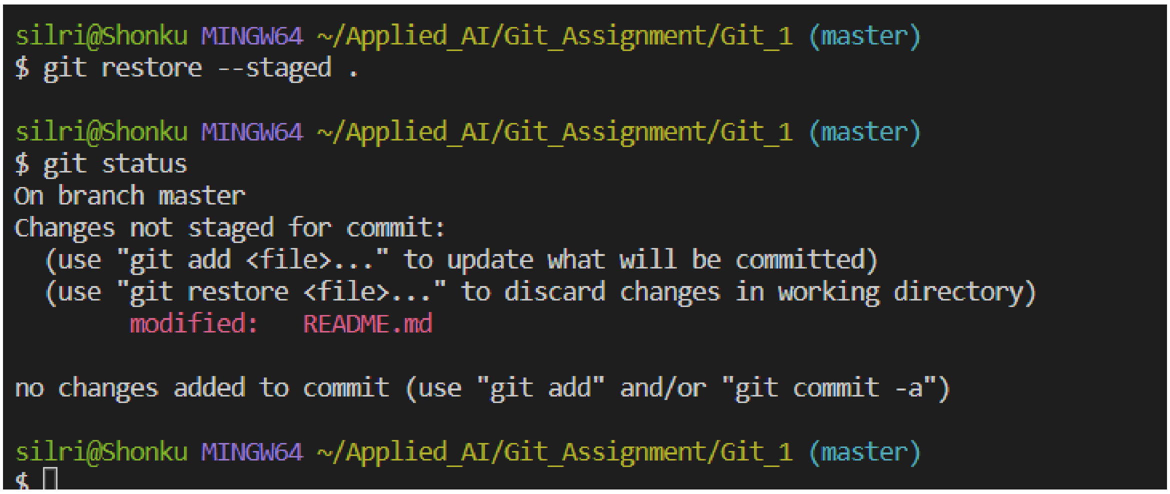
➔ *This is used to delete a branch*



```
silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/Git_1 (master)
$ git branch -d develop
Deleted branch develop (was ab1c252).

silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/Git_1 (master)
$ git branch --all
* master

silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/Git_1 (master)
$
```

11. git restore –staged .

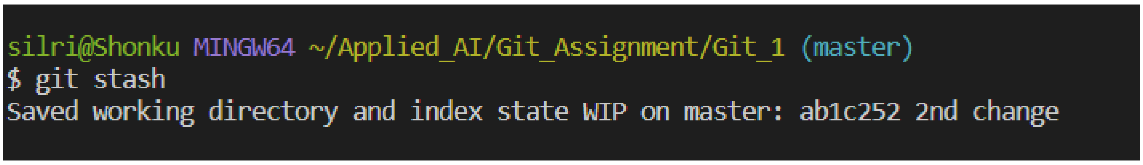
➔ *Untrack the file changes again*



```
silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/Git_1 (master)
$ git restore --staged .

silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/Git_1 (master)
$ 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:   README.md

no changes added to commit (use "git add" and/or "git commit -a")

silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/Git_1 (master)
$
```

12. git stash

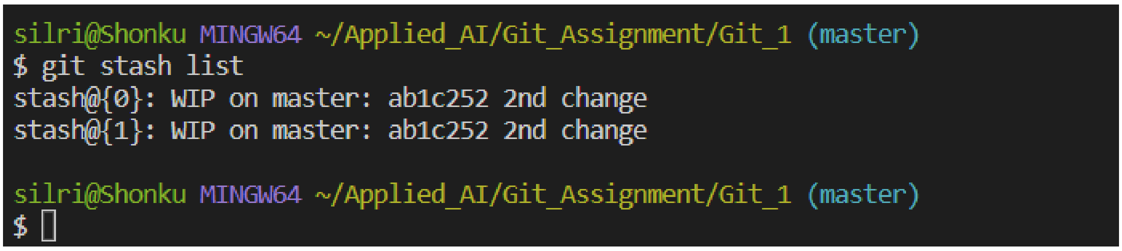
➔ *Draft the changes*



```
silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/Git_1 (master)
$ git stash
Saved working directory and index state WIP on master: ab1c252 2nd change
```

13. git stash list

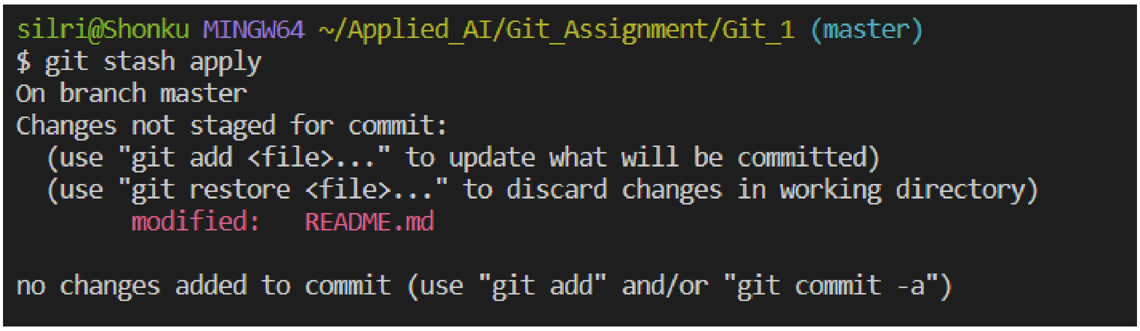
➔ *Show all available drafts*



```
silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/Git_1 (master)
$ git stash list
stash@{0}: WIP on master: ab1c252 2nd change
stash@{1}: WIP on master: ab1c252 2nd change

silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/Git_1 (master)
$ 
```

14. git stash apply

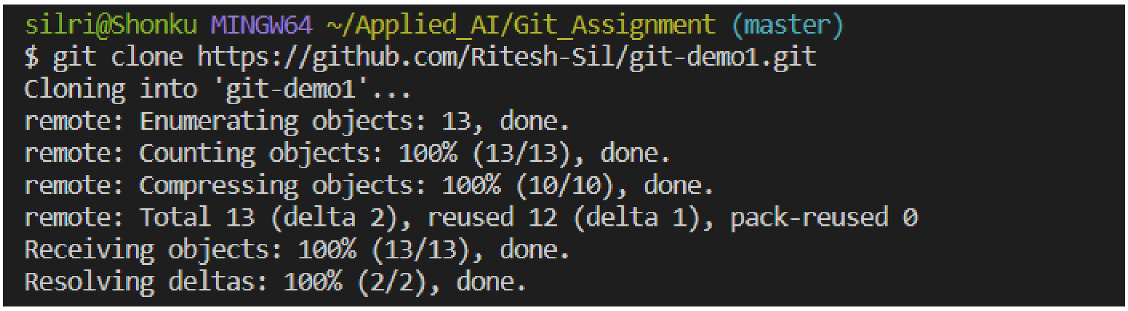
➔ *Apply all the changes drafted before.*



```
silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/Git_1 (master)
$ git stash apply
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:   README.md

no changes added to commit (use "git add" and/or "git commit -a")
```

15. git clone <repo url>

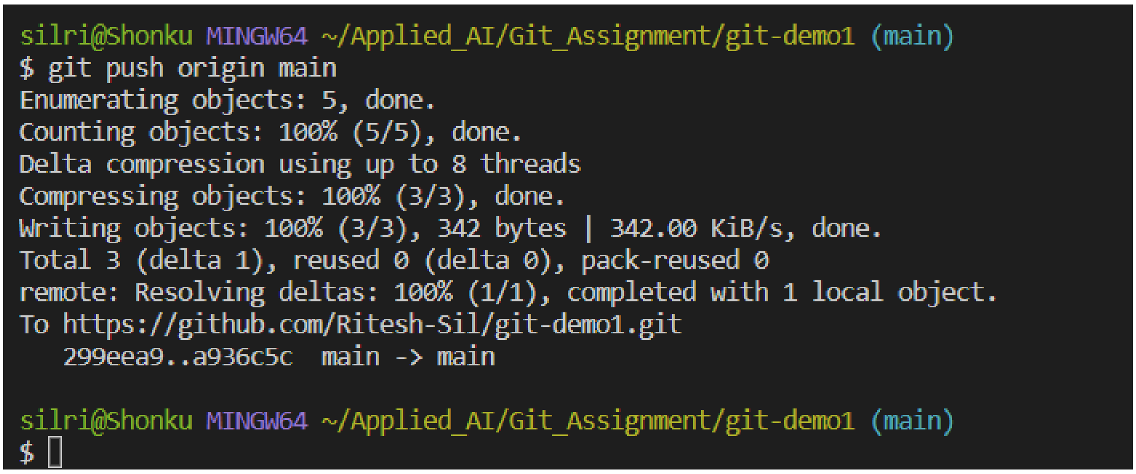
➔ *Download the repository from remote machine to local machine not as a normal folder but as a git repository.*



```
silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment (master)
$ git clone https://github.com/Ritesh-Sil/git-demo1.git
Cloning into 'git-demo1'...
remote: Enumerating objects: 13, done.
remote: Counting objects: 100% (13/13), done.
remote: Compressing objects: 100% (10/10), done.
remote: Total 13 (delta 2), reused 12 (delta 1), pack-reused 0
Receiving objects: 100% (13/13), done.
Resolving deltas: 100% (2/2), done.
```

16. git push origin main

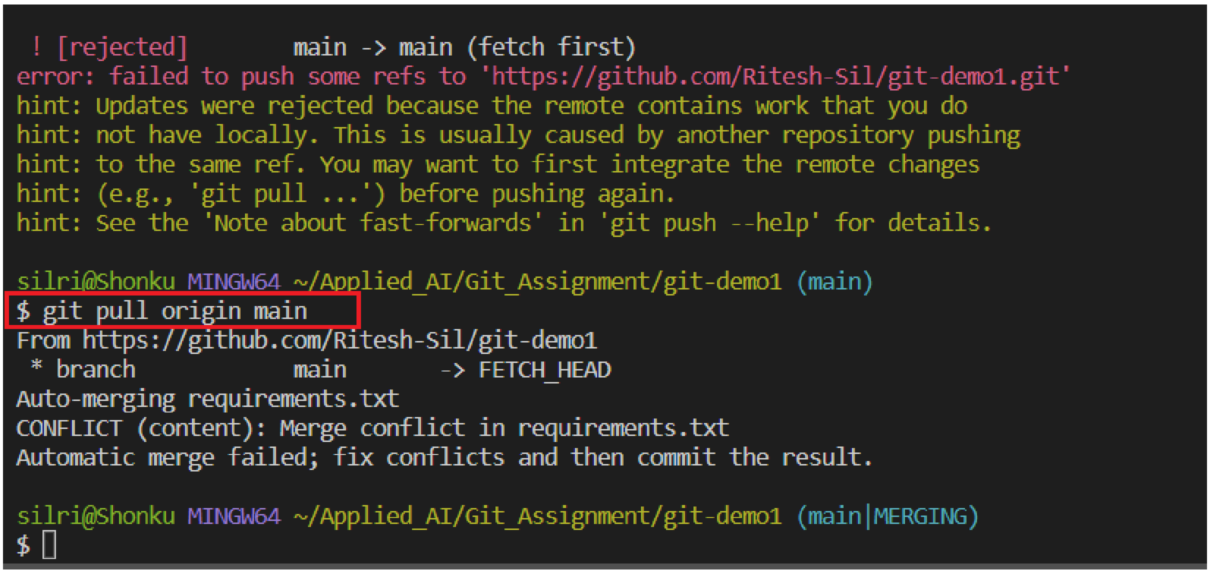
➔ *Upload the code from local repository to remote repository.*



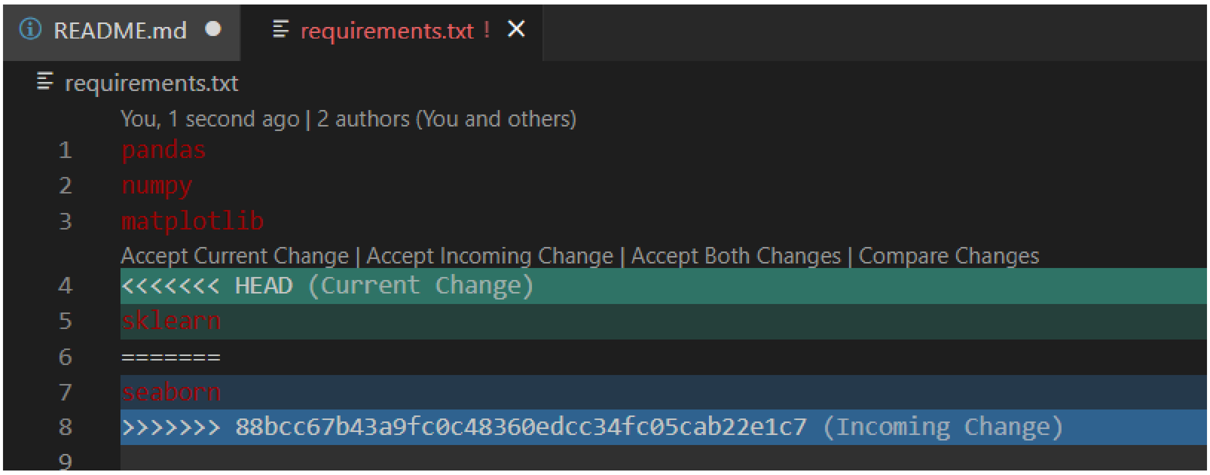
```
silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/git-demo1 (main)
$ git push origin main
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 8 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 342 bytes | 342.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/Ritesh-Sil/git-demo1.git
   299eea9..a936c5c  main -> main

silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/git-demo1 (main)
$
```

17. git pull origin main

➔ *Sync code from remote repository to local repository.*



```
 ! [rejected]        main -> main (fetch first)
error: failed to push some refs to 'https://github.com/Ritesh-Sil/git-demo1.git'
hint: Updates were rejected because the remote contains work that you do
hint: not have locally. This is usually caused by another repository pushing
hint: to the same ref. You may want to first integrate the remote changes
hint: (e.g., 'git pull ...') before pushing again.
hint: See the 'Note about fast-forwards' in 'git push --help' for details.

silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/git-demo1 (main)
$ git pull origin main
From https://github.com/Ritesh-Sil/git-demo1
 * branch            main       -> FETCH_HEAD
Auto-merging requirements.txt
CONFLICT (content): Merge conflict in requirements.txt
Automatic merge failed; fix conflicts and then commit the result.

silri@Shonku MINGW64 ~/Applied_AI/Git_Assignment/git-demo1 (main|MERGING)
$
```



README.md
requirements.txt !
requirements.txt
You, 1 second ago | 2 authors (You and others)
Accept Current Change | Accept Incoming Change | Accept Both Changes | Compare Changes

```
pandas
numpy
matplotlib
<<<<<<< HEAD (Current Change)
sklearn
=======
seaborn
>>>>>>> 88bcc67b43a9fc0c48360edcc34fc05cab22e1c7 (Incoming Change)
```