Assignment -1 (Repo name: my-repo)

1. Commit a repository with a single file change.

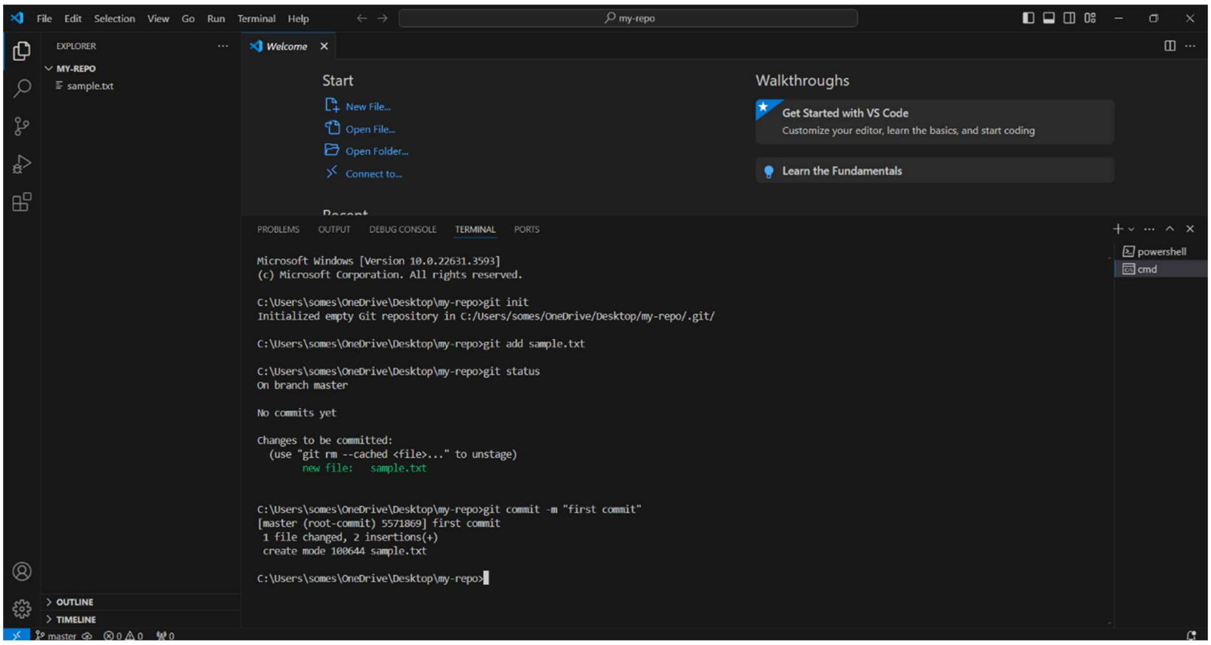
A simple file is created and a small change is done.

To start a git session : ***git init***

After naking changes we have to add the files to repo : ***git add sample.txt*** or ***git add .***(to add all the files).

To commit the changes : ***git commit -m “first commit”***

To check the status : ***git status***



```
Microsoft Windows [Version 10.0.22631.3593]
(c) Microsoft Corporation. All rights reserved.

C:\Users\somes\OneDrive\Desktop\my-repo>git init
Initialized empty Git repository in C:/Users/somes/OneDrive/Desktop/my-repo/.git/

C:\Users\somes\OneDrive\Desktop\my-repo>git add sample.txt

C:\Users\somes\OneDrive\Desktop\my-repo>git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   sample.txt


C:\Users\somes\OneDrive\Desktop\my-repo>git commit -m "first commit"
[master (root-commit) 5571869] first commit
 1 file changed, 2 insertions(+)
 create mode 100644 sample.txt

C:\Users\somes\OneDrive\Desktop\my-repo>
```

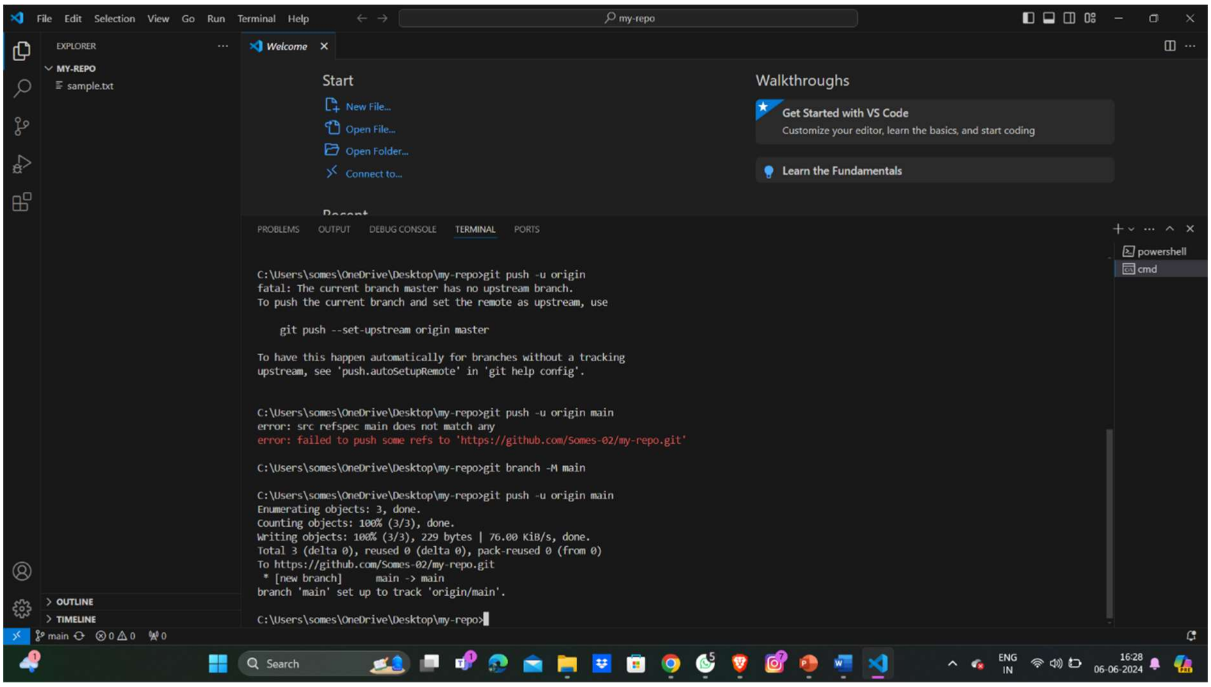
Committed to a repo and pushed.

Now after committing the changes, we have to push the file to the repo that we created in GitHub.

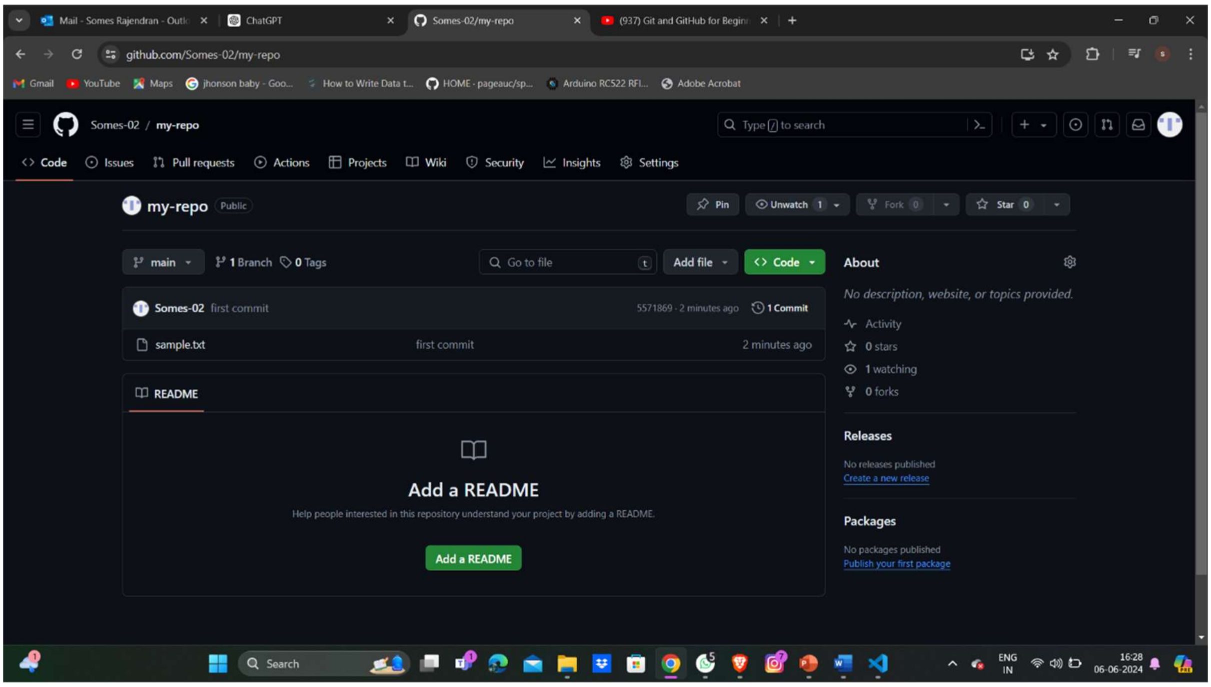
To push: ***git push -u origin main***

The -u stands for upstream which means we are setting the “main” branch as the default origin for pushing.

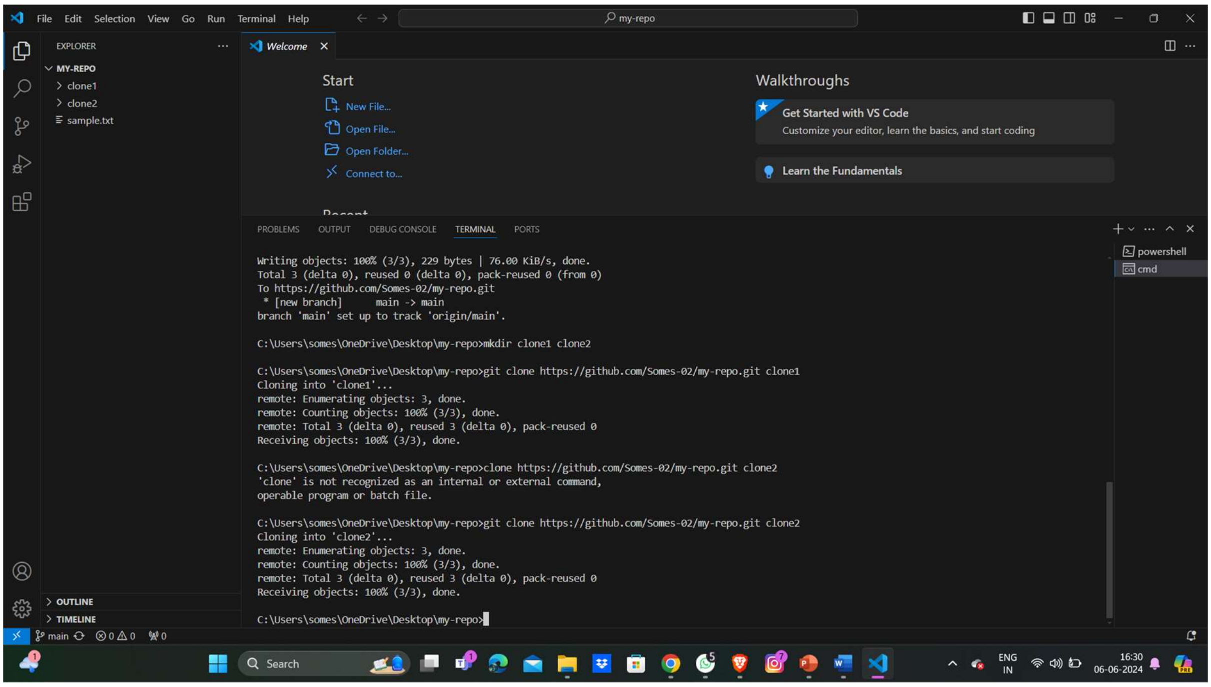
To connect the GitHub repo to our local repo: ***git remote add origin <URL of the repo>***



```
C:\Users\somes\OneDrive\Desktop\my-repo>git push -u origin
fatal: The current branch master has no upstream branch.
To push the current branch and set the remote as upstream, use

    git push --set-upstream origin master

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


C:\Users\somes\OneDrive\Desktop\my-repo>git push -u origin main
error: src refspec main does not match any
error: failed to push some refs to 'https://github.com/Somes-02/my-repo.git'

C:\Users\somes\OneDrive\Desktop\my-repo>git branch -M main

C:\Users\somes\OneDrive\Desktop\my-repo>git push -u origin main
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 229 bytes | 76.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/Somes-02/my-repo.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.

C:\Users\somes\OneDrive\Desktop\my-repo>
```



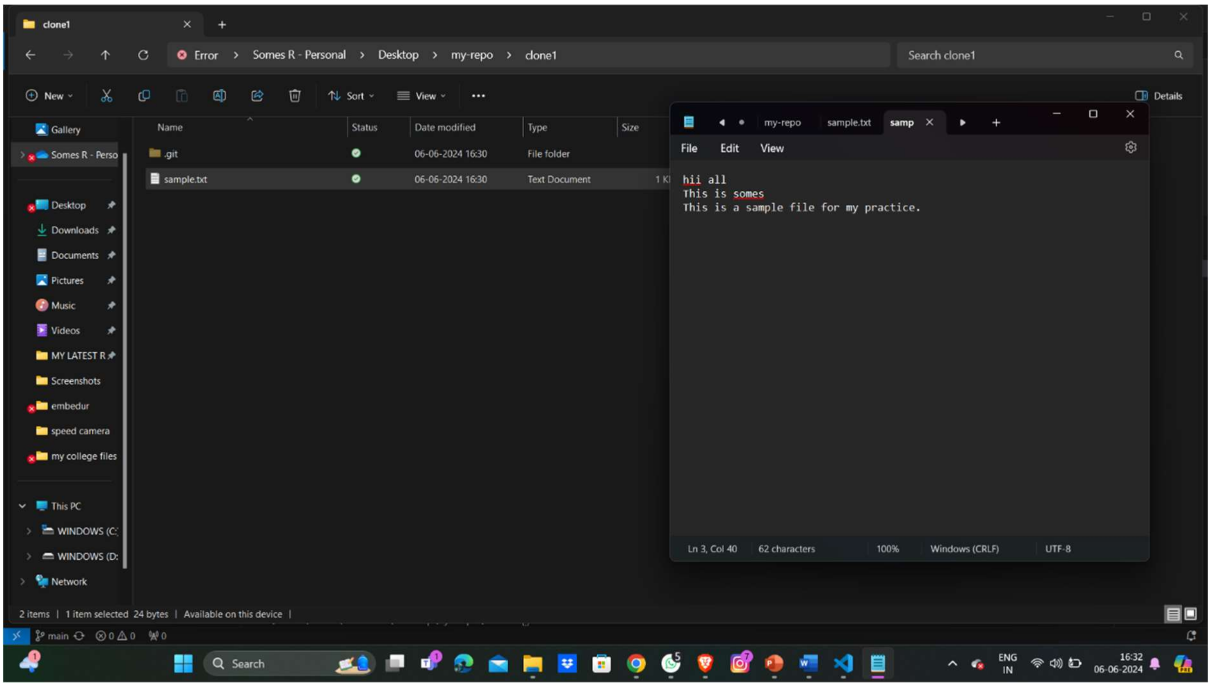
2. Create 2 new directories in local PC and clone the repository on both directories.



```
Writing objects: 100% (3/3), 229 bytes | 76.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/Somes-02/my-repo.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.

C:\Users\somes\OneDrive\Desktop\my-repo>mkdir clone1 clone2

C:\Users\somes\OneDrive\Desktop\my-repo>git clone https://github.com/Somes-02/my-repo.git clone1
Cloning into 'clone1'...
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 3 (delta 0), pack-reused 0
Receiving objects: 100% (3/3), done.

C:\Users\somes\OneDrive\Desktop\my-repo>clone https://github.com/Somes-02/my-repo.git clone2
'clone' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\somes\OneDrive\Desktop\my-repo>git clone https://github.com/Somes-02/my-repo.git clone2
Cloning into 'clone2'...
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 3 (delta 0), pack-reused 0
Receiving objects: 100% (3/3), done.

C:\Users\somes\OneDrive\Desktop\my-repo>
```

3. Make changes in one of the directories and commit and merge the changes.

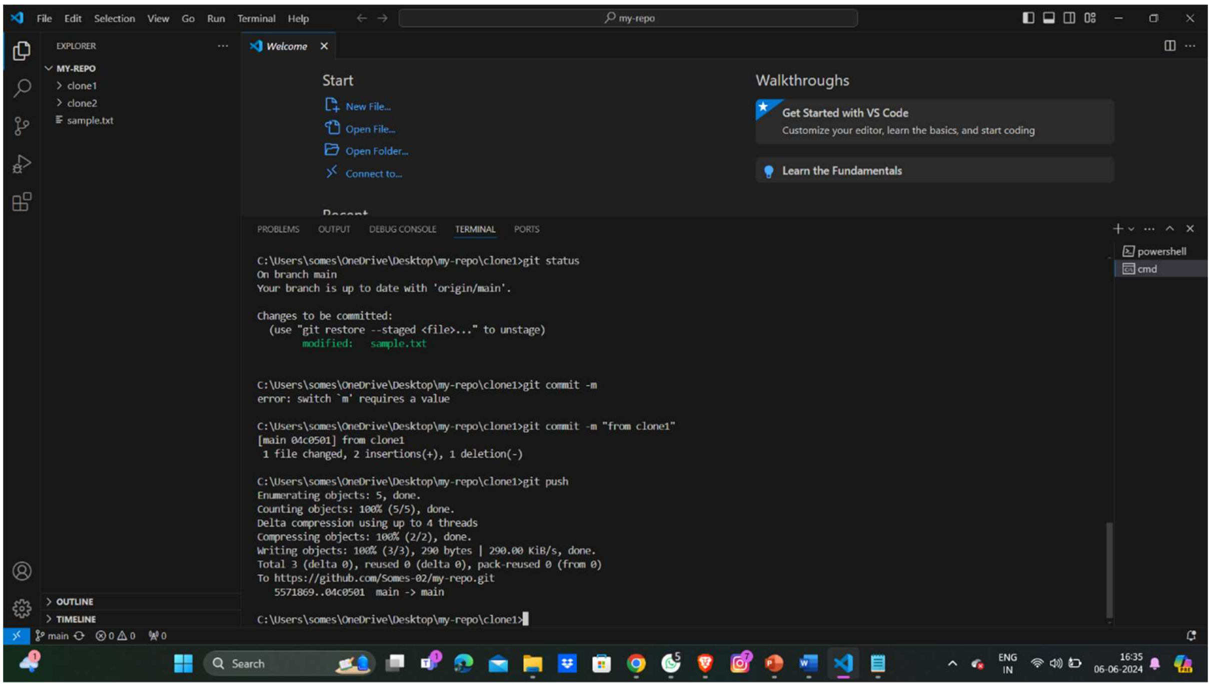
Changes made in one directory.



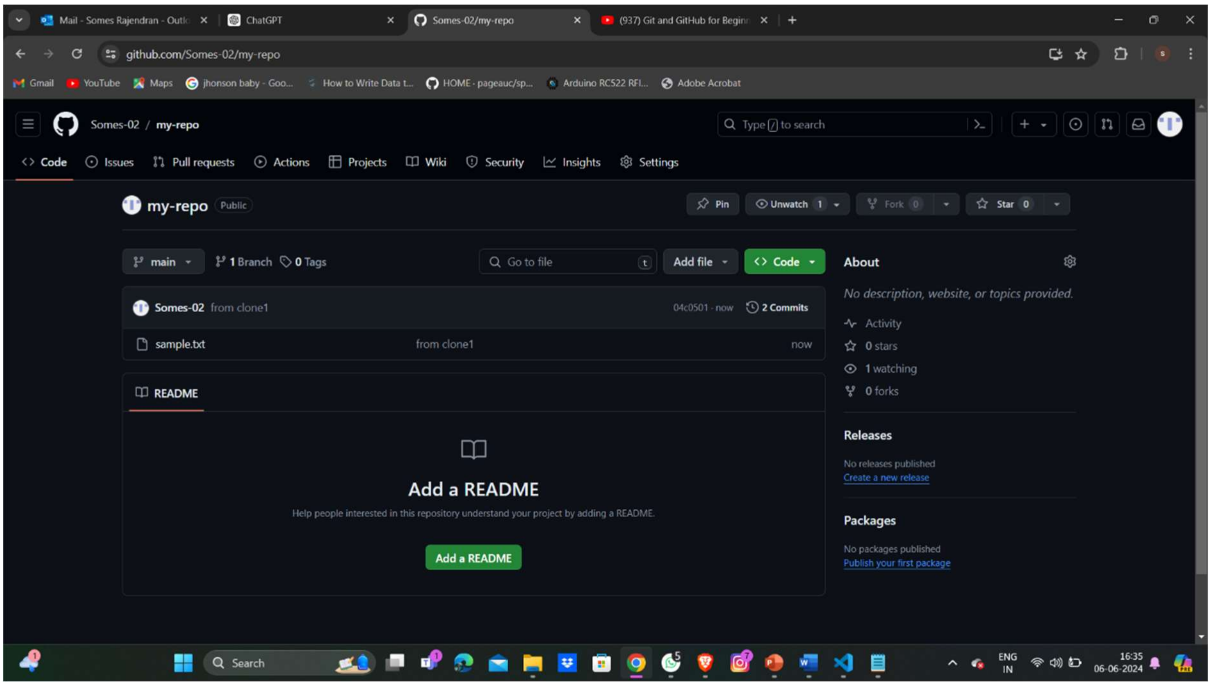
Name	Status	Date modified	Type	Size
.git	✓	06-06-2024 16:30	File folder	
sample.txt	✓	06-06-2024 16:30	Text Document	1 KB

```
hii all
This is somes
This is a sample file for my practice.
```

The changes are committed and pushed and merged.



```
C:\Users\somes\OneDrive\Desktop\my-repo\clone1>git status
On branch main
Your branch is up to date with 'origin/main'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   sample.txt


C:\Users\somes\OneDrive\Desktop\my-repo\clone1>git commit -m
error: switch `m' requires a value

C:\Users\somes\OneDrive\Desktop\my-repo\clone1>git commit -m "from clone1"
[main 04c0501] from clone1
 1 file changed, 2 insertions(+), 1 deletion(-)

C:\Users\somes\OneDrive\Desktop\my-repo\clone1>git push
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 290 bytes | 290.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/Somes-02/my-repo.git
   5571869..04c0501  main -> main

C:\Users\somes\OneDrive\Desktop\my-repo\clone1>
```



github.com/Somes-02/my-repo

Somes-02 / my-repo

my-repo Public

main 1 Branch 0 Tags

Somes-02 from clone1 04c0501 · now 2 Commits

sample.txt from clone1 now

README

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About

No description, website, or topics provided.

Activity
0 stars
1 watching
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Releases

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Create a new release

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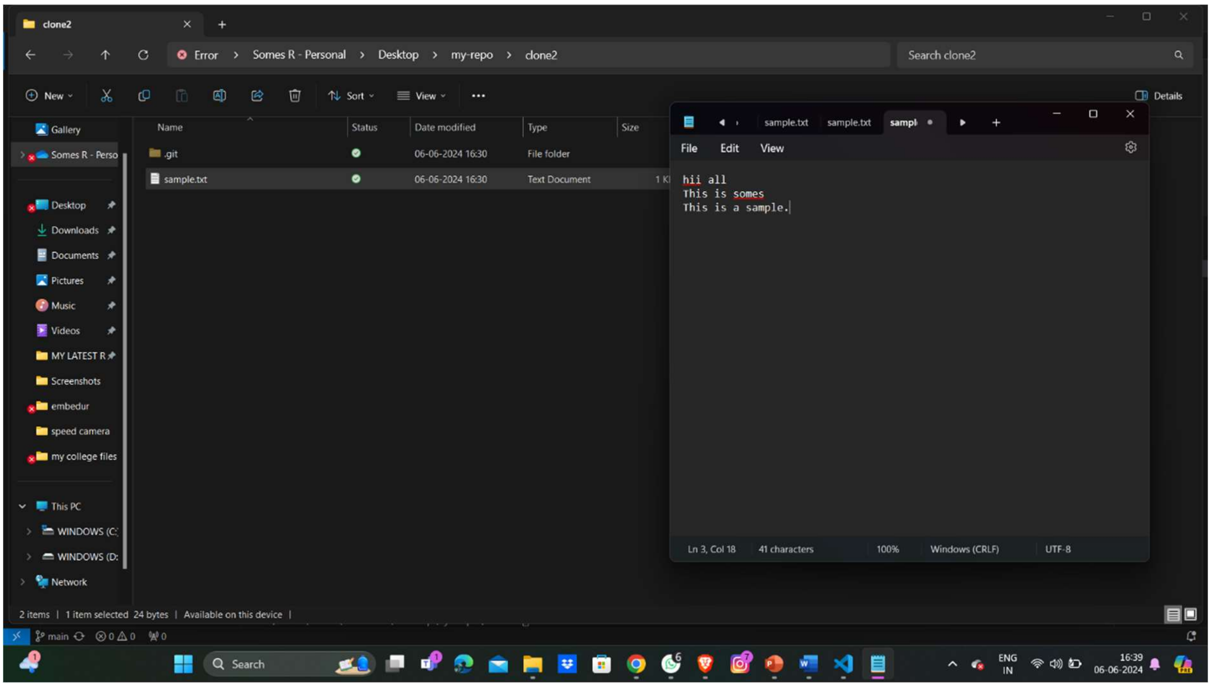
No packages published
Publish your first package

4. Parallelly make a change in the same file in another directory and when the changes are pushed, there should be merge conflict noticed which should be resolved and pushed changes again.

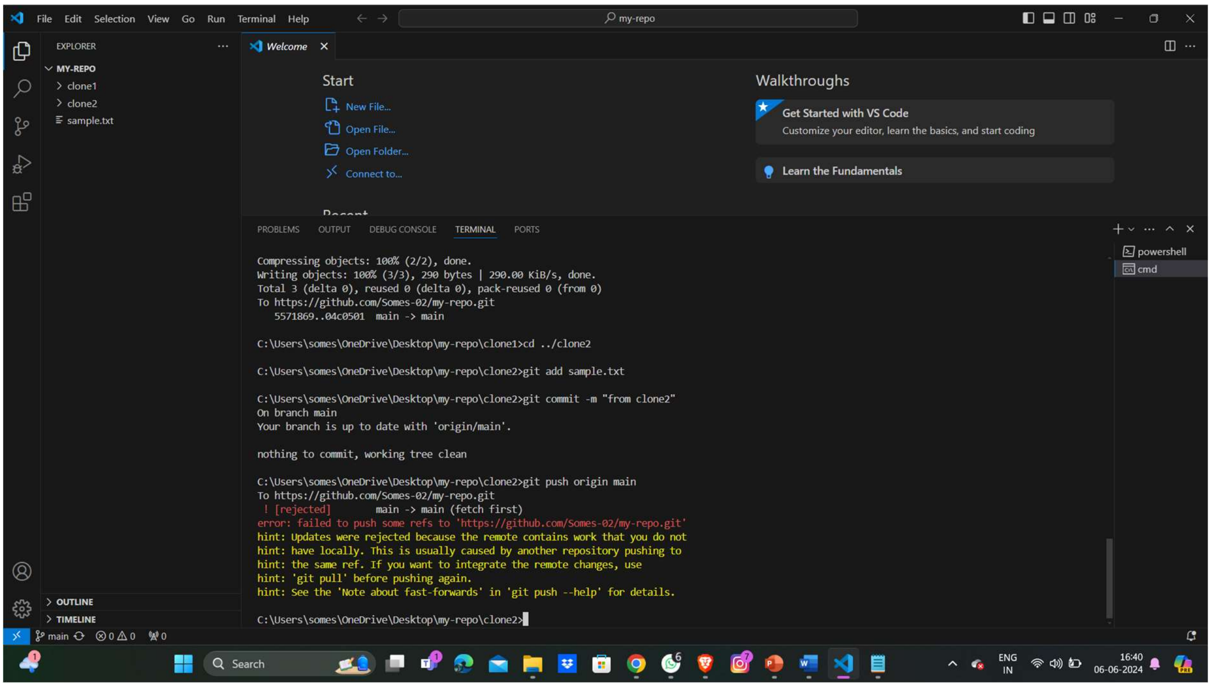
Changes are made in the second file.



```
hii all
This is somes
This is a sample.
```

Merge Conflict

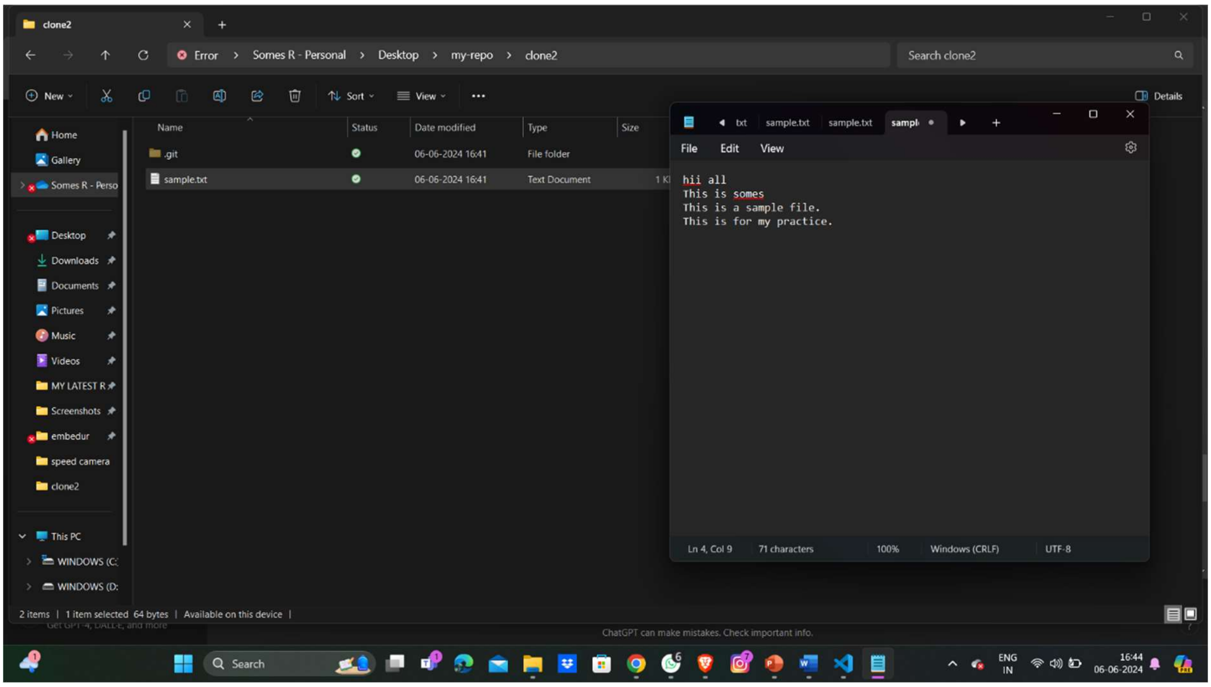
Trying to push the file from the second directory.



```
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 290 bytes | 290.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/Somes-02/my-repo.git
   5571869..04c0501  main -> main

C:\Users\somes\OneDrive\Desktop\my-repo\clone1>cd ../clone2

C:\Users\somes\OneDrive\Desktop\my-repo\clone2>git add sample.txt

C:\Users\somes\OneDrive\Desktop\my-repo\clone2>git commit -m "from clone2"
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean

C:\Users\somes\OneDrive\Desktop\my-repo\clone2>git push origin main
To https://github.com/Somes-02/my-repo.git
 ! [rejected]        main -> main (fetch first)
error: failed to push some refs to 'https://github.com/Somes-02/my-repo.git'
hint: Updates were rejected because the remote contains work that you do not
hint: have locally. This is usually caused by another repository pushing to
hint: the same ref. If you want to integrate the remote changes, use
hint: 'git pull' before pushing again.
hint: See the 'Note about fast-forwards' in 'git push --help' for details.

C:\Users\somes\OneDrive\Desktop\my-repo\clone2>
```

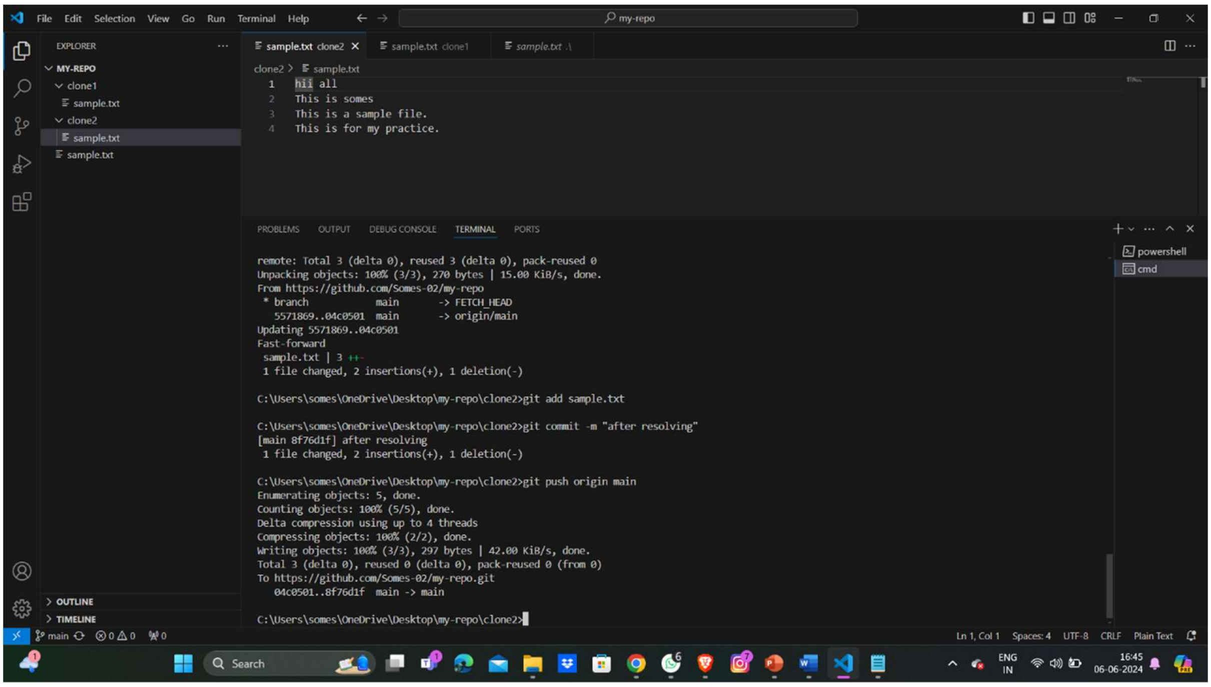
5. Merge the changes

Resolving the changes



```
hii all
This is somes
This is a sample file.
This is for my practice.
```

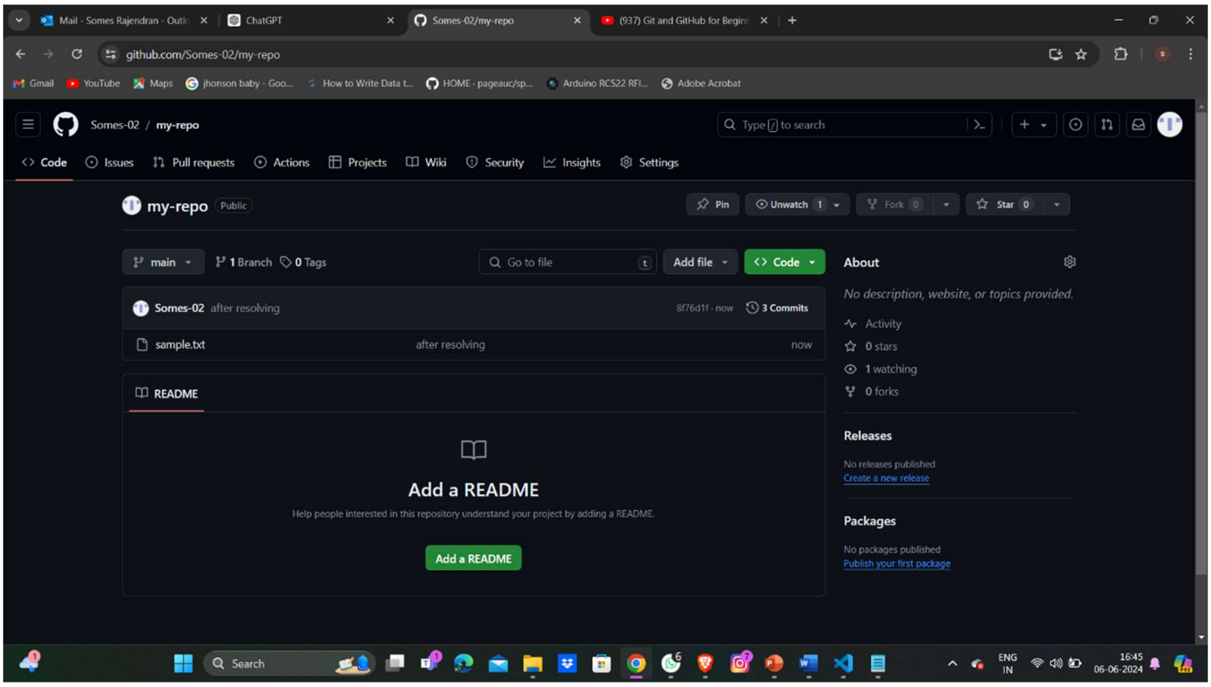
Pushing aftering resolving the conflict



```
hii all
This is somes
This is a sample file.
This is for my practice.
```

```
remote: Total 3 (delta 0), reused 3 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), 270 bytes | 15.00 KiB/s, done.
From https://github.com/Somes-02/my-repo
 * branch            main       -> FETCH_HEAD
   5571869..04c0501  main       -> origin/main
Updating 5571869..04c0501
Fast-forward
 sample.txt | 3 ++-
 1 file changed, 2 insertions(+), 1 deletion(-)

C:\Users\somes\OneDrive\Desktop\my-repo\clone2>git add sample.txt

C:\Users\somes\OneDrive\Desktop\my-repo\clone2>git commit -m "after resolving"
[main 8f76d1f] after resolving
 1 file changed, 2 insertions(+), 1 deletion(-)

C:\Users\somes\OneDrive\Desktop\my-repo\clone2>git push origin main
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 297 bytes | 42.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/Somes-02/my-repo.git
   04c0501..8f76d1f  main -> main

C:\Users\somes\OneDrive\Desktop\my-repo\clone2>
```

The final status of the repo after all the changes.



github.com/Somes-02/my-repo

Somes-02 / my-repo

my-repo Public

main · 1 Branch · 0 Tags

Somes-02 after resolving · 8f76d1f · now · 3 Commits

sample.txt	after resolving	now

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No releases published

Create a new release

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