

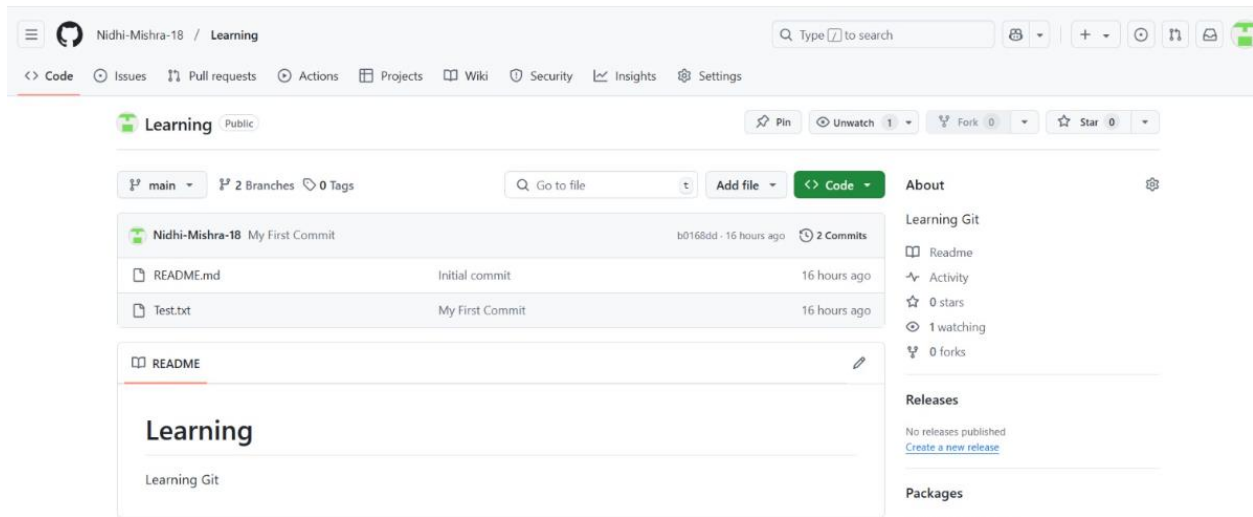
## GIT ASSIGNMENT

**Objective:** The goal of this assignment is to help you get familiar with basic Git commands and workflows, which are commonly used in real-world software development.

1. Create a Repository
2. Create a new file
3. Create a branch
4. Make changes in new branch
5. Create Another branch
6. Merge Branches
7. Pull Changes From Remote
8. View Git log and history
9. Git status and staging
10. Revert and reset

### 1.Create a Repository

Here the name of repository is Learning



### 2.Create a new file

//clone repository into local

git clone <https://github.com/Nidhi-Mishra-18/Learning.git>

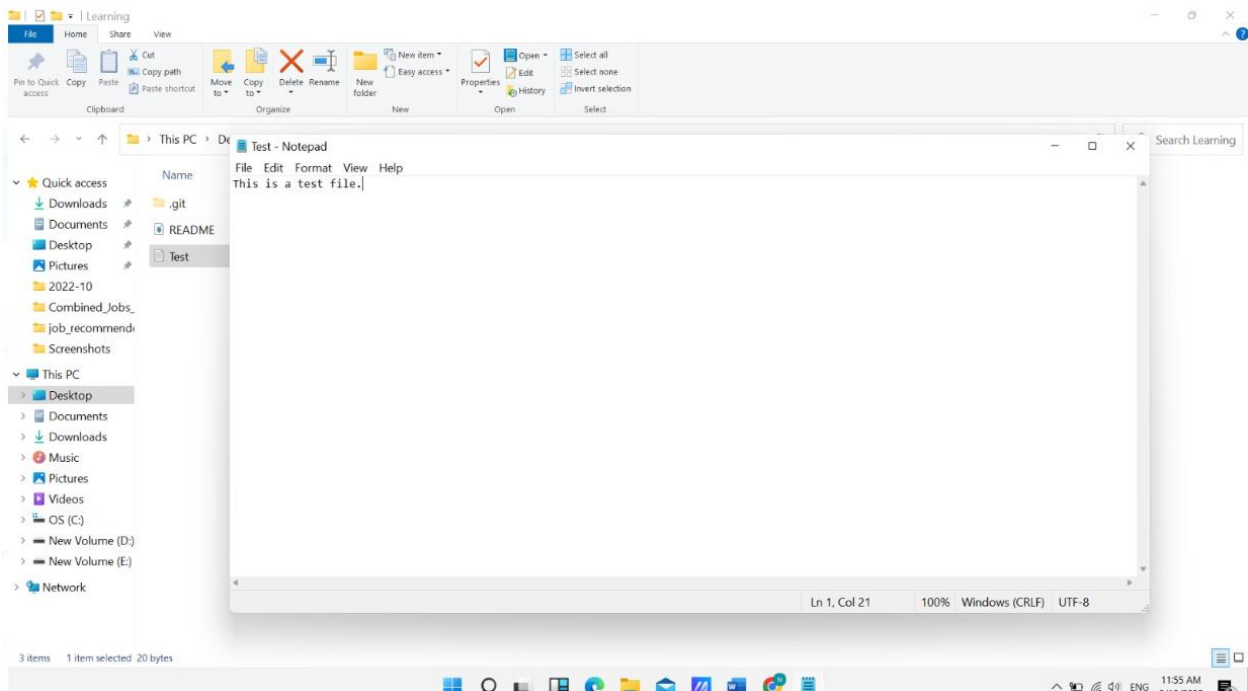
## cd Learning

**git add Test.txt**

**git commit -m "My First commit"**

//pushing changes to remote

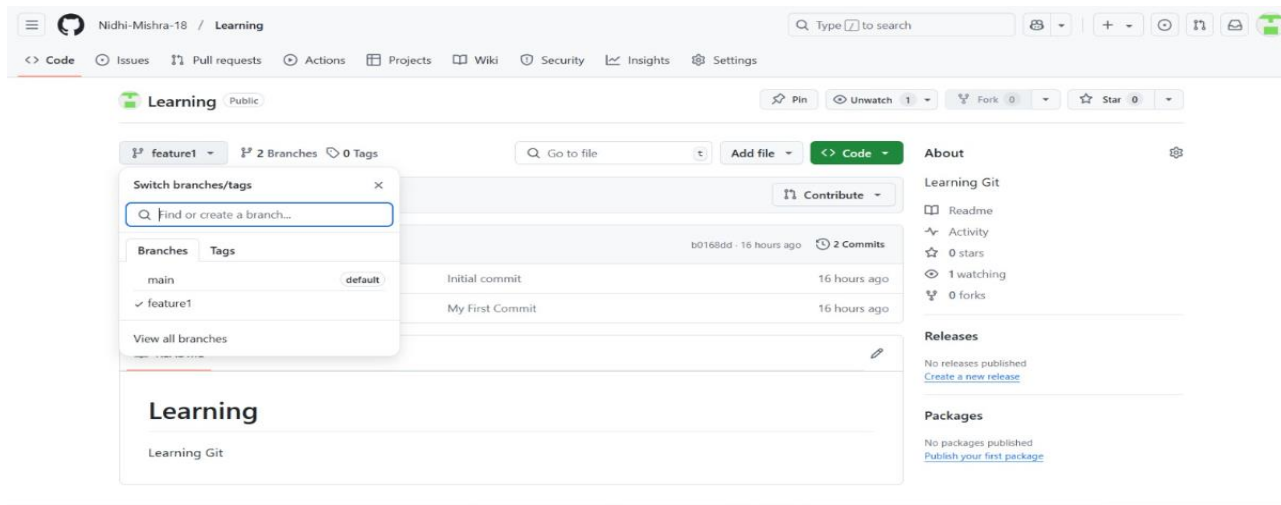
**git push origin main**



## 3.Create a branch

//create first branch

**git branch feature1**



#### 4. Make changes in new branch

//Firstly edit the text file

**git checkout feature1**

**git add Test.txt**

**git commit -m "Edited File"**

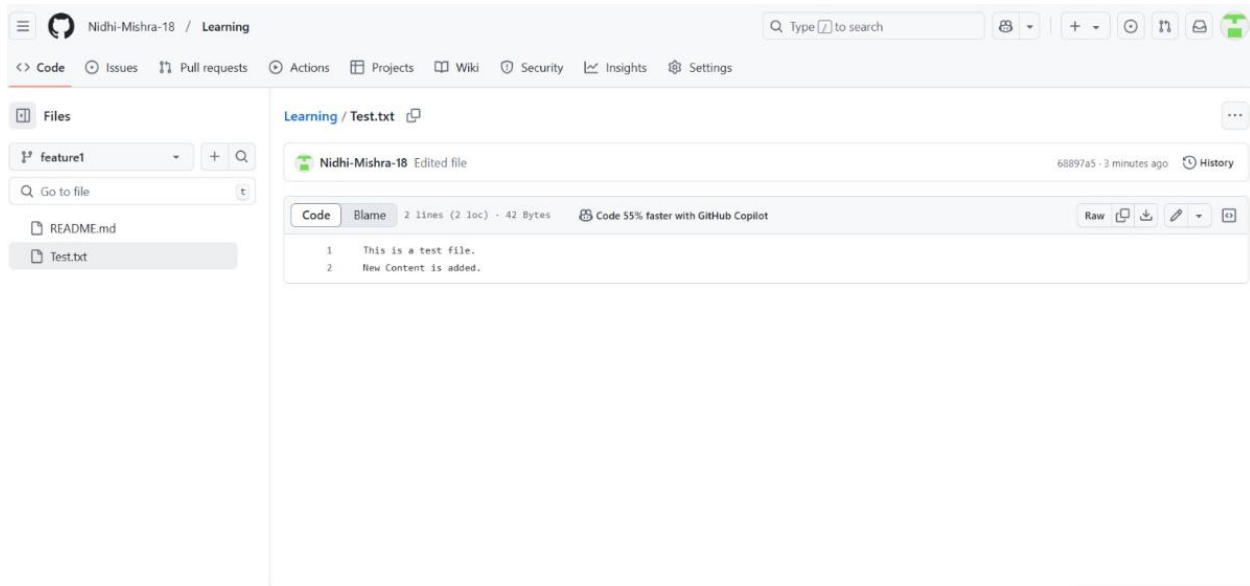
//pushing changes to remote

**git push origin feature1**

```
Nidhi@LAPTOP-AJUENOQV MINGW64 ~/Desktop/Git Tutorial/Learning (feature1)
$ git add Test.txt

Nidhi@LAPTOP-AJUENOQV MINGW64 ~/Desktop/Git Tutorial/Learning (feature1)
$ git commit -m "Edited file"
[feature1 68897a5] Edited file
1 file changed, 2 insertions(+), 1 deletion(-)

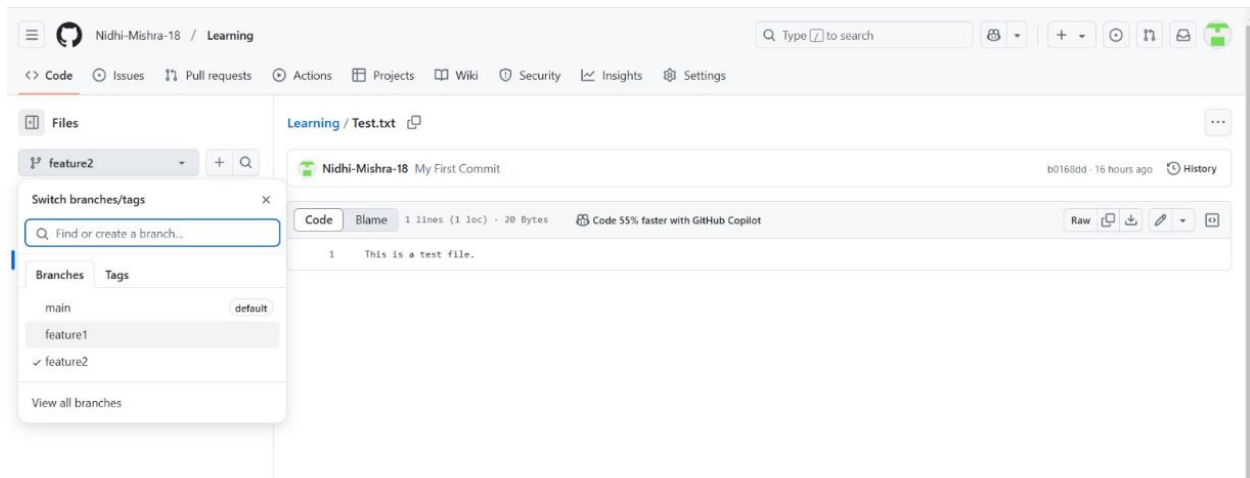
Nidhi@LAPTOP-AJUENOQV MINGW64 ~/Desktop/Git Tutorial/Learning (feature1)
$ git push origin feature1
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 8 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 324 bytes | 162.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/Nidhi-Mishra-18/Learning.git
b0168dd..68897a5 feature1 -> feature1
```



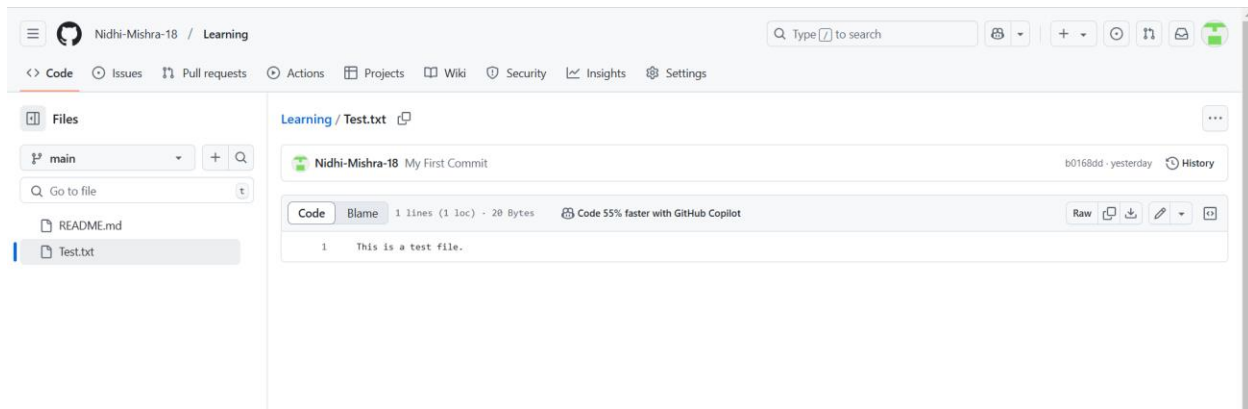
## 5.Create Another branch

//create second branch

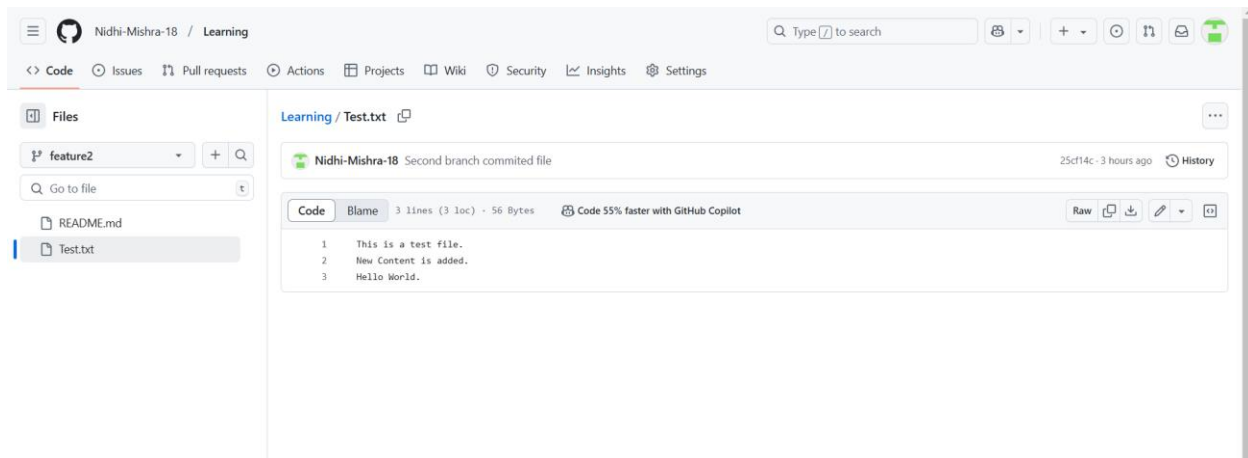
**git branch feature2**



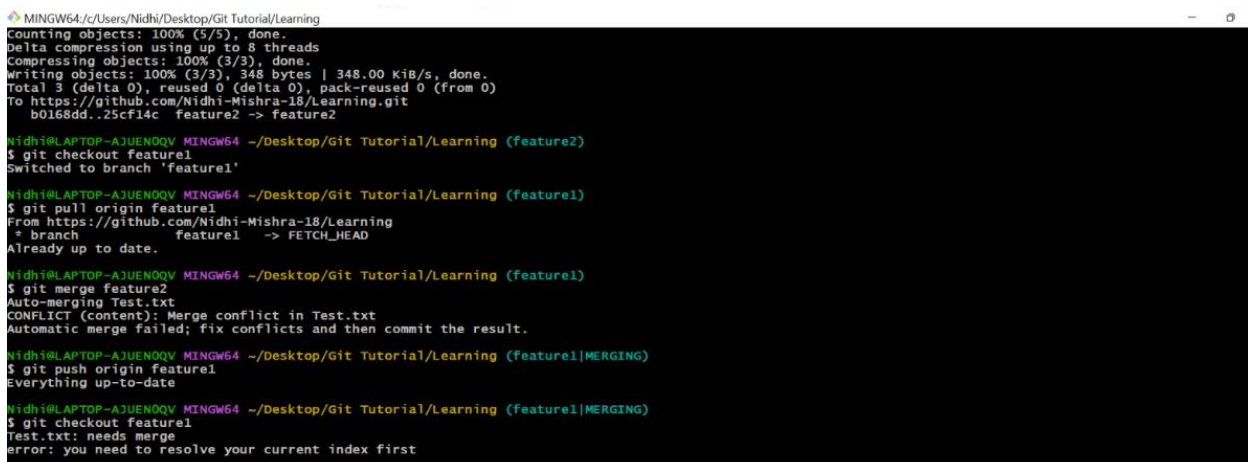
## //Main branch



## //Feature2 branch



## 6.Merge Branches



```
Nidhi@LAPTOP-AJUENQOV MINGW64 ~/Desktop/Git Tutorial/Learning (feature1|MERGING)
$ git pull origin feature1
error: Pulling is not possible because you have unmerged files.
hint: Fix them up in the work tree, and then use 'git add/rm <file>'
hint: as appropriate to mark resolution and make a commit.
fatal: Exiting because of an unresolved conflict.

Nidhi@LAPTOP-AJUENQOV MINGW64 ~/Desktop/Git Tutorial/Learning (feature1|MERGING)
$ ^C

Nidhi@LAPTOP-AJUENQOV MINGW64 ~/Desktop/Git Tutorial/Learning (feature1|MERGING)
$ git status
On branch feature1
You have unmerged paths.
  (fix conflicts and run "git commit")
  (use "git merge --abort" to abort the merge)
```

```
MINGW64/C:/Users/Nidhi/Desktop/Git Tutorial/Learning
Nidhi@LAPTOP-AJUENQOV MINGW64 ~/Desktop/Git Tutorial/Learning (feature1)
$ git pull origin feature1
From https://github.com/Nidhi-Mishra-18/Learning
 * branch          feature1    -> FETCH_HEAD
Already up to date.

Nidhi@LAPTOP-AJUENQOV MINGW64 ~/Desktop/Git Tutorial/Learning (feature1)
$ git push origin feature1
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 8 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 403 bytes | 403.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/Nidhi-Mishra-18/Learning.git
  68897a5..bd5c844  feature1 -> feature1

Nidhi@LAPTOP-AJUENQOV MINGW64 ~/Desktop/Git Tutorial/Learning (feature1)
$ git checkout feature2
error: Your local changes to the following files would be overwritten by checkout:
  Test.txt
Please commit your changes or stash them before you switch branches.
Aborting

Nidhi@LAPTOP-AJUENQOV MINGW64 ~/Desktop/Git Tutorial/Learning (feature1)
$ git add Test.txt

Nidhi@LAPTOP-AJUENQOV MINGW64 ~/Desktop/Git Tutorial/Learning (feature1)
$ git commit -m "Resolved merge conflict in Test.txt"
[feature1 3959ef0] Resolved merge conflict in Test.txt
 1 file changed, 2 deletions(-)

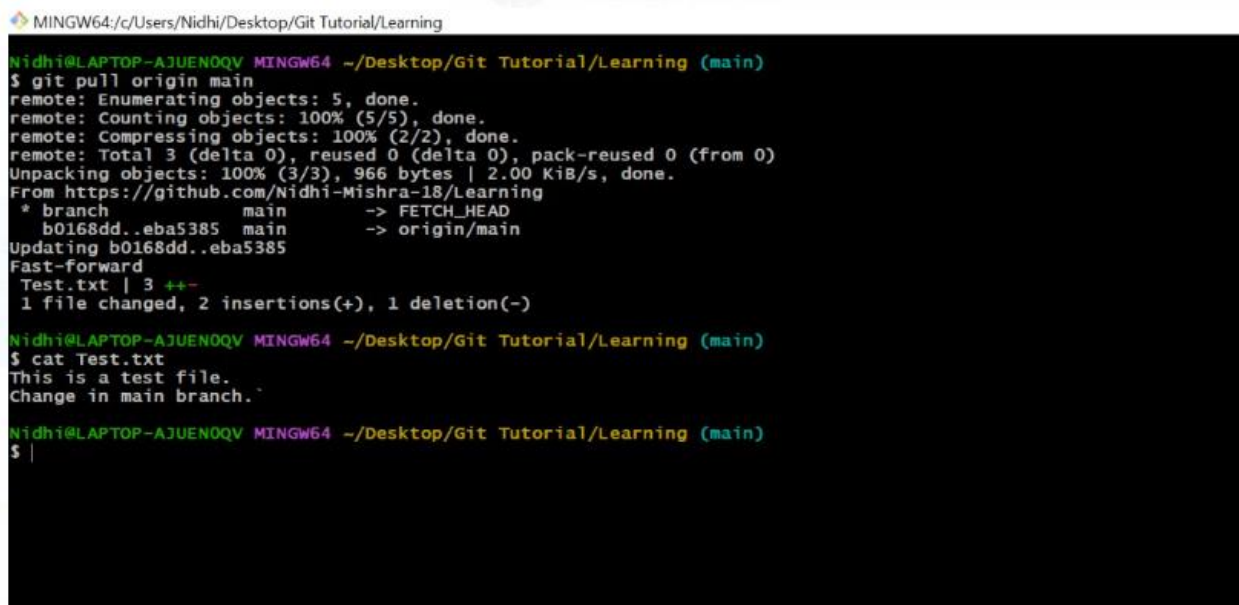
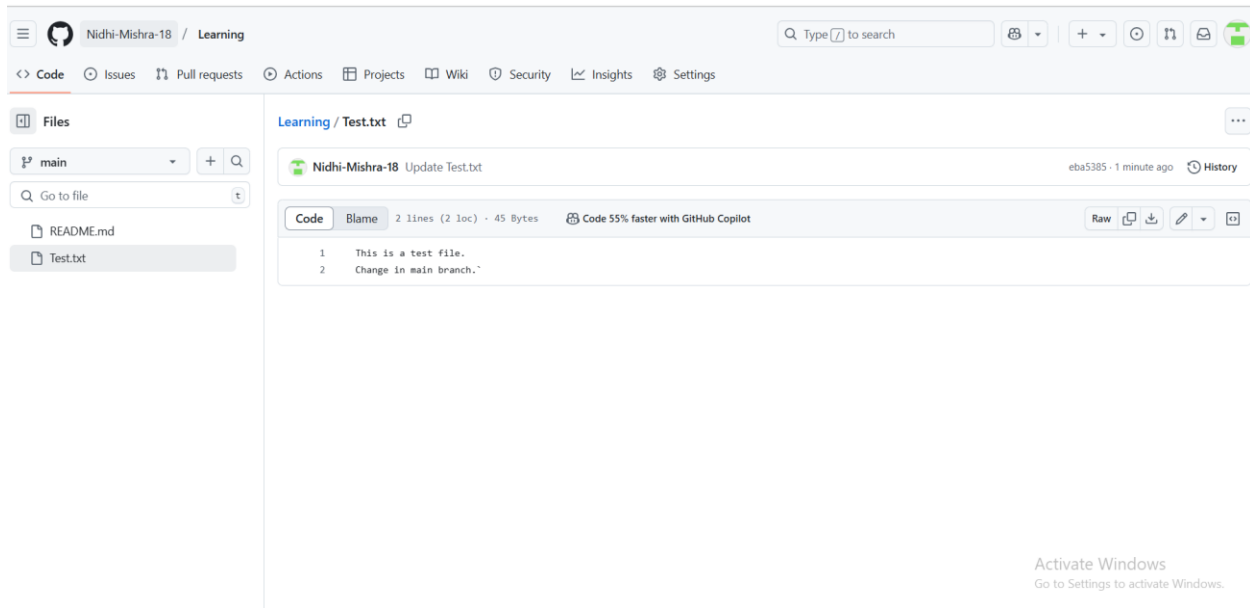
Nidhi@LAPTOP-AJUENQOV MINGW64 ~/Desktop/Git Tutorial/Learning (feature1)
$ git merge origin feature1
Already up to date.
```

The screenshot shows the GitHub web interface for the repository 'Nidhi-Mishra-18 / Learning'. The 'Files' tab is selected, showing the file 'Test.txt'. The file content is displayed as follows:

```
1 This is a test file.
2 New Content is added.
3 Hello World.
```

The commit history for 'Test.txt' is shown, indicating a merge conflict resolution by Nidhi-Mishra-18, committed 2 hours ago. The commit message is 'Resolved merge conflict in Test.txt'.

## 7.Pull Changes From Remote



## 8.View Git log and history

//main branch



```

Nidhi@LAPTOP-AJUEN0QV MINGW64 ~/Desktop/Git Tutorial/Learning (main)
$ git log
commit eba53853675532ff300f1915874e9a6f1b39f382 (HEAD -> main, origin/main, origin/HEAD)
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date: Wed Feb 19 17:25:48 2025 +0530

    Update Test.txt

commit b0168dd8691048a18a1d87ebc793450fdeefa5c4
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date: Tue Feb 18 19:48:05 2025 +0530

    My First Commit

commit 3351adfb6f9e1e6acb2c8ef2ad2211dee0d859bc
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date: Tue Feb 18 19:45:39 2025 +0530

    Initial commit

```

//first branch [feature1]

```

Nidhi@LAPTOP-AJUEN0QV MINGW64 ~/Desktop/Git Tutorial/Learning (feature1)
$ git log
commit 3959ef07fd256fe186a4762cd2b7896cf5245014 (HEAD -> feature1, origin/feature1)
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date: Wed Feb 19 14:06:28 2025 +0530

    Resolved merge conflict in Test.txt

commit bd5c84474f07542887e975f4c6db52f784fd7f55
Merge: 68897a5 25cf14c
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date: Wed Feb 19 13:33:18 2025 +0530

    Resolved merge conflict in Test.txt

commit 25cf14c0b14327789a602d1150aaa4892602a866 (origin/feature2, feature2)
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date: Wed Feb 19 13:13:40 2025 +0530

    Second branch committed file

commit 68897a5560d439d79ecd840eee3a0dcd91569e50
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date: Wed Feb 19 12:14:33 2025 +0530

    Edited file

commit b0168dd8691048a18a1d87ebc793450fdeefa5c4
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date: Tue Feb 18 19:48:05 2025 +0530

    My First Commit

commit 3351adfb6f9e1e6acb2c8ef2ad2211dee0d859bc
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date: Tue Feb 18 19:45:39 2025 +0530

    Initial commit

```

//second branch [feature2]

```

Nidhi@LAPTOP-AJUEN0QV MINGW64 ~/Desktop/Git Tutorial/Learning (feature2)
$ git log
commit 25cf14c0b14327789a602d1150aaa4892602a866 (HEAD -> feature2, origin/feature2)
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date: Wed Feb 19 13:13:40 2025 +0530

    Second branch committed file

commit b0168dd8691048a18a1d87ebc793450fdeefa5c4
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date: Tue Feb 18 19:48:05 2025 +0530

    My First Commit

commit 3351adfb6f9e1e6acb2c8ef2ad2211dee0d859bc
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date: Tue Feb 18 19:45:39 2025 +0530

    Initial commit

```



## 9. Git status and staging

//status

```
Nidhi@LAPTOP-AJUENOQV MINGW64 ~/Desktop/Git Tutorial/Learning (feature2)
$ git status
On branch feature2
nothing to commit, working tree clean

Nidhi@LAPTOP-AJUENOQV MINGW64 ~/Desktop/Git Tutorial/Learning (feature2)
$ git checkout feature1
Switched to branch 'feature1'

Nidhi@LAPTOP-AJUENOQV MINGW64 ~/Desktop/Git Tutorial/Learning (feature1)
$ git status
On branch feature1
nothing to commit, working tree clean

Nidhi@LAPTOP-AJUENOQV MINGW64 ~/Desktop/Git Tutorial/Learning (feature1)
$ git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.

Nidhi@LAPTOP-AJUENOQV MINGW64 ~/Desktop/Git Tutorial/Learning (main)
$ git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean

Nidhi@LAPTOP-AJUENOQV MINGW64 ~/Desktop/Git Tutorial/Learning (main)
$
```

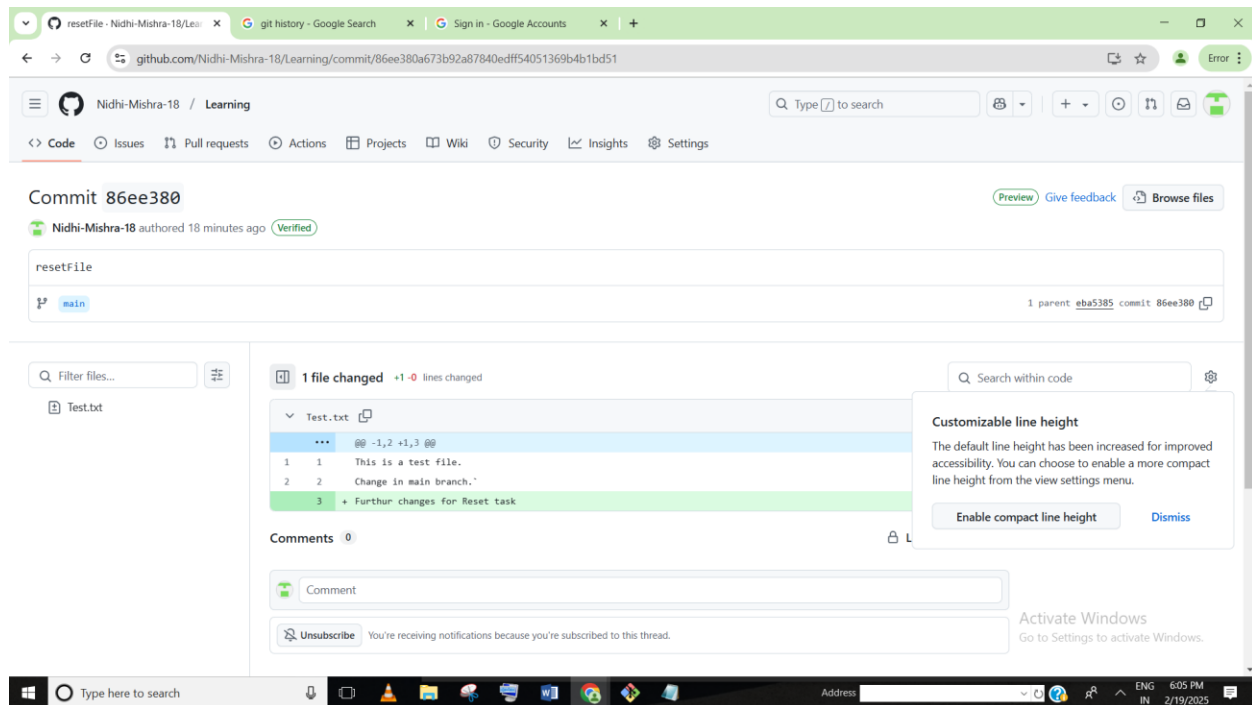
//staging

```
Nidhi@LAPTOP-AJUENOQV MINGW64 ~/Desktop/Git Tutorial/Learning (main)
$ git add Test.txt
```

## 10. Revert and reset

//for reset

Adding some content in the file to reset



//git log before reset

```
Nidhi@LAPTOP-AJUEN0QV MINGW64 ~/Desktop/Git Tutorial/Learning (main)
$ git log
commit 86ee380a673b92a87840edff54051369b4b1bd51 (HEAD -> main, origin/main, origin/HEAD)
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date: Wed Feb 19 17:47:14 2025 +0530

    resetFile

commit eba53853675532ff300f1915874e9a6f1b39f382
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date: Wed Feb 19 17:25:48 2025 +0530

    Update Test.txt

commit b0168dd8691048a18a1d87ebc793450fdeefa5c4
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date: Tue Feb 18 19:48:05 2025 +0530

    My First Commit

commit 3351adfb6f9e1e6acb2c8ef2ad2211dee0d859bc
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date: Tue Feb 18 19:45:39 2025 +0530

    Initial commit
```

//reset command

```
Nidhi@LAPTOP-AJUEN0QV MINGW64 ~/Desktop/Git Tutorial/Learning (main)
$ git reset --hard HEAD~1
HEAD is now at eba5385 Update Test.txt
```

//git log after reset

```

Nidhi@LAPTOP-AJUENOQV MINGW64 ~/Desktop/Git Tutorial/Learning (main)
$ git log
commit eba53853675532ff300f1915874e9a6f1b39f382 (HEAD -> main)
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date:   Wed Feb 19 17:25:48 2025 +0530

    Update Test.txt

commit b0168dd8691048a18a1d87ebc793450fdeefa5c4
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date:   Tue Feb 18 19:48:05 2025 +0530

    My First Commit

commit 3351adfb6f9e1e6acb2c8ef2ad2211dee0d859bc
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date:   Tue Feb 18 19:45:39 2025 +0530

    Initial commit

```

//revert

The screenshot shows the GitHub web interface for a repository named 'Learning' by user 'Nidhi-Mishra-18'. The 'Files' tab is active, showing a file named 'Test.txt'. A commit titled 'revert the file' by 'Nidhi-Mishra-18' is highlighted, with a timestamp of 'a1053b6 · 9 minutes ago'. The commit message is visible: '1 This is a test file.', '2 Change in main branch,', and '3 Adding one more line for revert task.' The interface includes navigation links for Code, Issues, Pull requests, Actions, Projects, Wiki, Security, Insights, and Settings. A search bar is present at the top right.

//git log before revert

```

Nidhi@LAPTOP-AJUENOQV MINGW64 ~/Desktop/Git Tutorial/Learning (main)
$ git log
commit a1053b60f0865ce26edf42d5aa116dd9c427bfe5 (HEAD -> main, origin/main, origin/HEAD)
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date:   Wed Feb 19 18:01:40 2025 +0530

    revert the file

commit 86ee380a673b92a87840edff54051369b4b1bd51
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date:   Wed Feb 19 17:47:14 2025 +0530

    resetFile

commit eba53853675532ff300f1915874e9a6f1b39f382
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date:   Wed Feb 19 17:25:48 2025 +0530

    Update Test.txt

commit b0168dd8691048a18a1d87ebc793450fdeefa5c4
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date:   Tue Feb 18 19:48:05 2025 +0530

    My First Commit

commit 3351adfb6f9e1e6acb2c8ef2ad2211dee0d859bc
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date:   Tue Feb 18 19:45:39 2025 +0530

    Initial commit

```

```
Nidhi@LAPTOP-AJUENOQV MINGW64 ~/Desktop/Git Tutorial/Learning (main)
$ git log --oneline
a1053b6 (HEAD -> main, origin/main, origin/HEAD) revert the file
86ee380 resetFile
eba5385 Update Test.txt
b0168dd My First Commit
3351adf Initial commit
```

//revert

```
Nidhi@LAPTOP-AJUENOQV MINGW64 ~/Desktop/Git Tutorial/Learning (main)
$ git revert HEAD
hint: Waiting for your editor to close the file...
hint: unix2dos: converting file C:/Users/Nidhi/Desktop/Git Tutorial/Learning/.git/COMMIT_EDITMSG to DOS format...
dos2unix: converting file C:/Users/Nidhi/Desktop/Git Tutorial/Learning/.git/COMMIT_EDITMSG to Unix format...
[main f0066d2] Revert "revert the file"
1 file changed, 1 insertion(+), 1 deletion(-)

Nidhi@LAPTOP-AJUENOQV MINGW64 ~/Desktop/Git Tutorial/Learning (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), 384 bytes | 384.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/Nidhi-Mishra-18/Learning.git
 a1053b6..f0066d2  main -> main
```

//git log after revert

```
a1053b6..f0066d2  main -> main

Nidhi@LAPTOP-AJUENOQV MINGW64 ~/Desktop/Git Tutorial/Learning (main)
$ git log
commit f0066d23f3ac36be57cf9d3d01047a5aa4437b6a (HEAD -> main, origin/main, origin/HEAD)
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date:   Wed Feb 19 18:12:33 2025 +0530

    Revert "revert the file"

    This reverts commit a1053b60f0865ce26edf42d5aa116dd9c427bfe5.

commit a1053b60f0865ce26edf42d5aa116dd9c427bfe5
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date:   Wed Feb 19 18:01:40 2025 +0530

    revert the file

commit 86ee380a673b92a87840edff54051369b4b1bd51
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date:   Wed Feb 19 17:47:14 2025 +0530

    resetFile

commit eba53853675532ff300f1915874e9a6f1b39f382
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date:   Wed Feb 19 17:25:48 2025 +0530

    Update Test.txt

commit b0168dd8691048a18a1d87ebc793450fdeefa5c4
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date:   Tue Feb 18 19:48:05 2025 +0530

    My First Commit

commit 3351adfb6f9e1e6acb2c8ef2ad2211dee0d859bc
Author: Nidhi-Mishra-18 <nidhimishra18062003@gmail.com>
Date:   Tue Feb 18 19:45:39 2025 +0530

    Initial commit
```

The screenshot shows a GitHub repository interface for a user named 'Nidhi-Mishra-18' in a repository named 'Learning'. The top navigation bar includes links for Code, Issues, Pull requests, Actions, Projects, Wiki, Security, Insights, and Settings. A search bar is located on the right. The left sidebar shows the 'Files' tab with a file tree containing 'README.md' and 'Test.txt'. The main content area displays the file 'Test.txt' with a commit history of 3 lines (3 loc) and 76 Bytes. The commit message is 'Nidhi-Mishra-18 Revert "revert the file"' with a commit hash of 'f0066d2' and a timestamp of '3 minutes ago'. The commit details show the following code changes:

```
1 This is a test file.  
2 Change in main branch."  
3 Furthur changes for Reset task
```

The interface also includes a 'Code' button, a 'Blame' button, and a 'Raw' button. A banner for GitHub Copilot is visible above the code content.