

GIT

Git (Global Information Tracker). Git is a distributed version control system (VCS) designed to handle everything from small to very large projects with speed and efficiency. It tracks changes to files, allowing multiple developers to collaborate on a project by managing code versions and changes effectively.

GIT HUB

GitHub is a Source code management (SCM). GitHub is a popular platform for hosting and managing code repositories. It is built on top of Git, a version control system, and provides a collaborative environment where developers can store, track, and manage their code projects.

Version Control:

- GitHub uses Git to track changes in code. This makes it easy to revert to previous versions or collaborate on projects without conflicts.

Collaboration:

- Developers can work together on projects by creating branches, making changes, and merging updates. Tools like pull requests allow for code reviews and discussions before changes are integrated.

Hosting:

- GitHub provides cloud-based storage for repositories, making them accessible from anywhere.

Open Source:

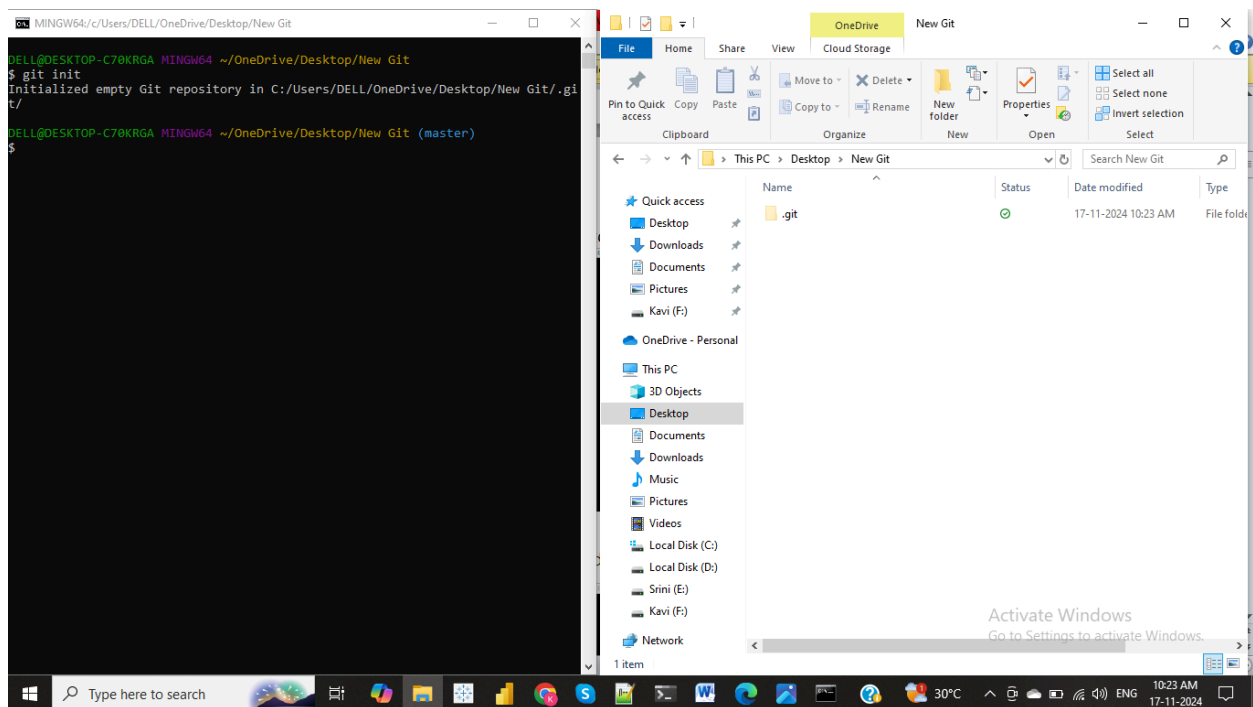
- Many open-source projects are hosted on GitHub, enabling contributors from around the world to collaborate.

CI/CD Integration:

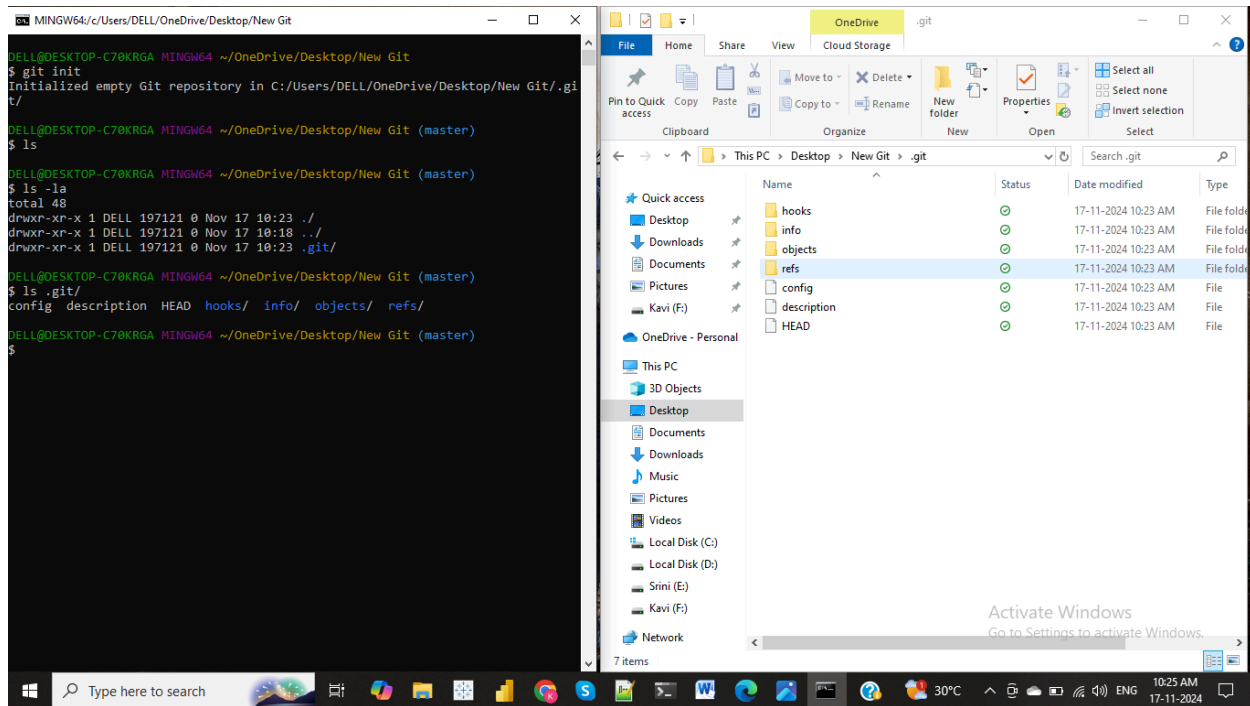
- GitHub Actions allow developers to automate workflows, like testing and deploying code, making it suitable for DevOps practices.

GIT TASK:

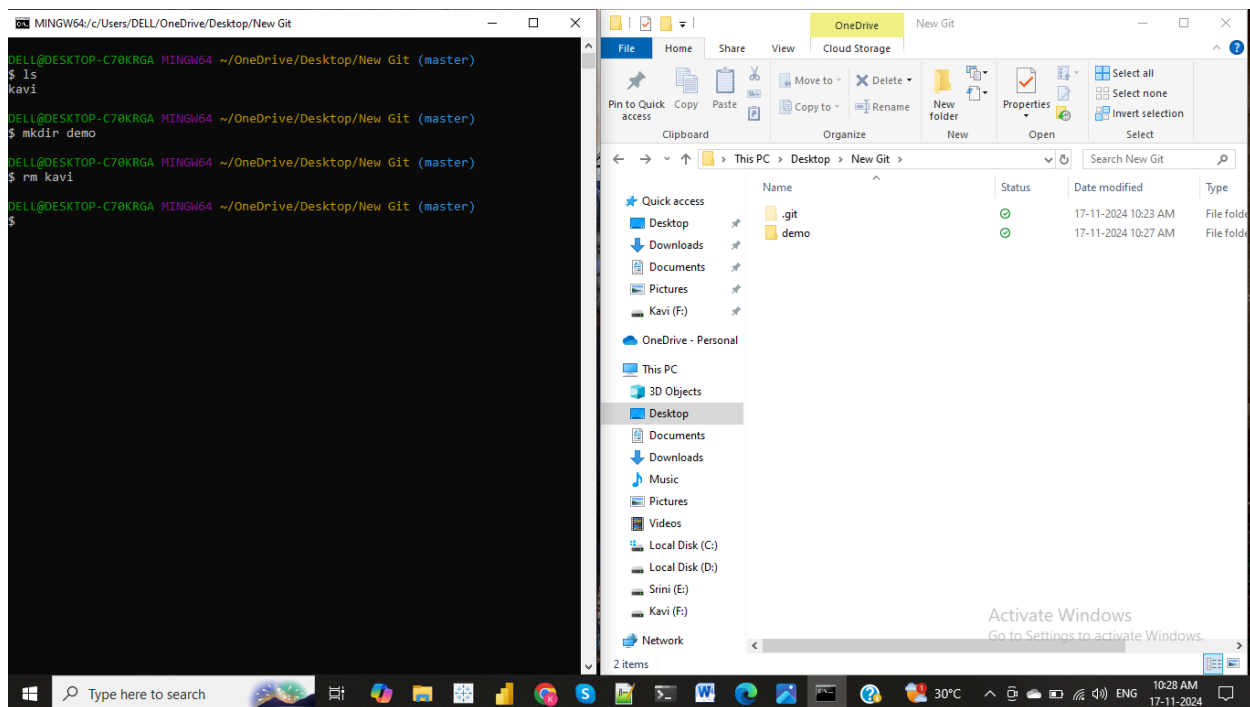
Installed gitCreate empty repo in folder



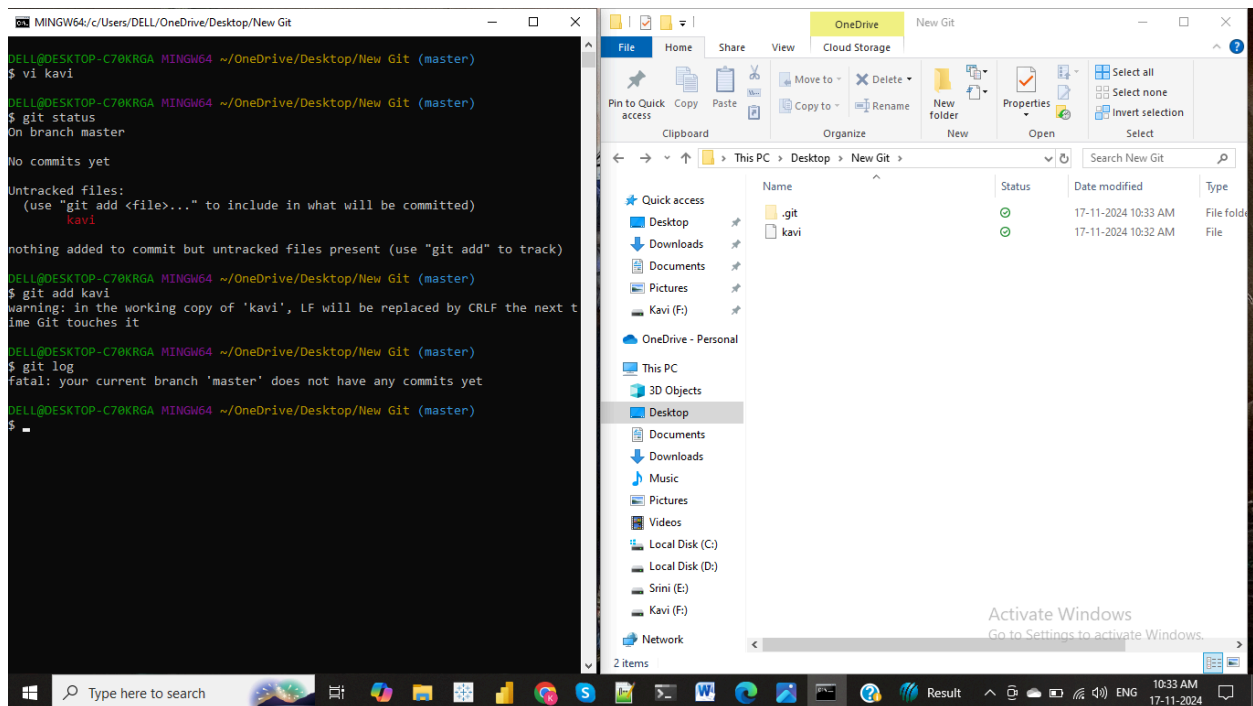
To check the lists of .git



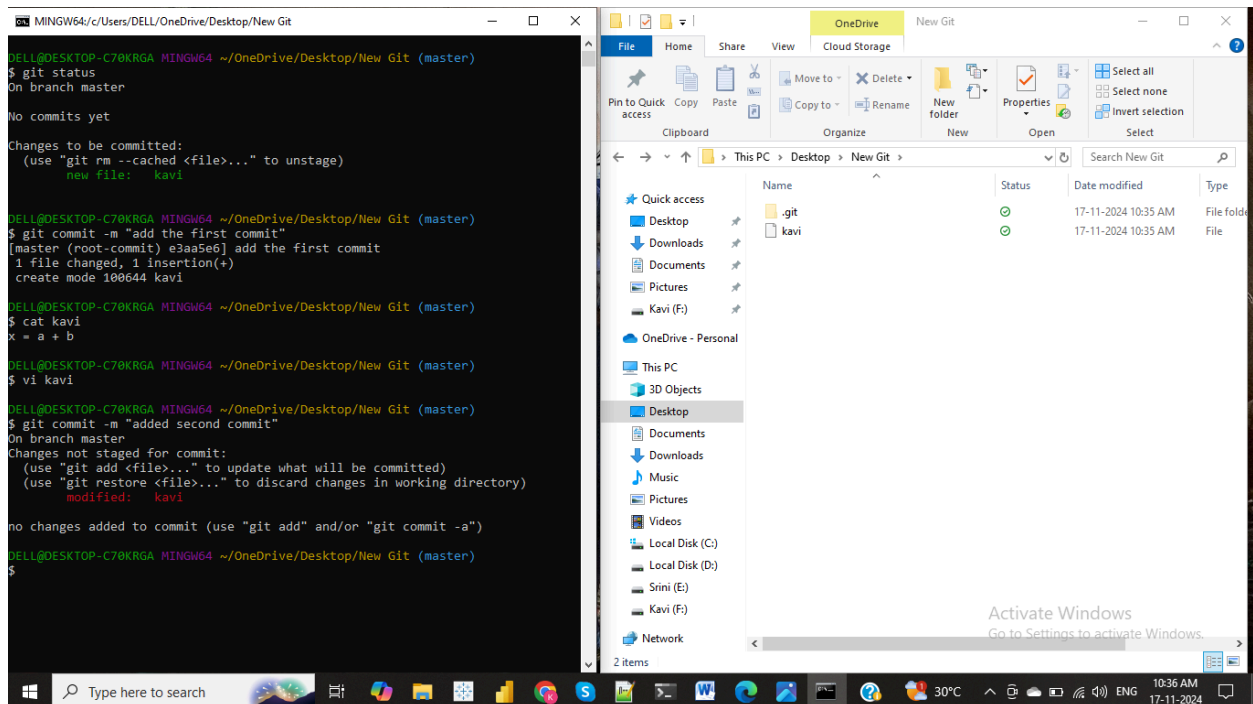
Create a folder



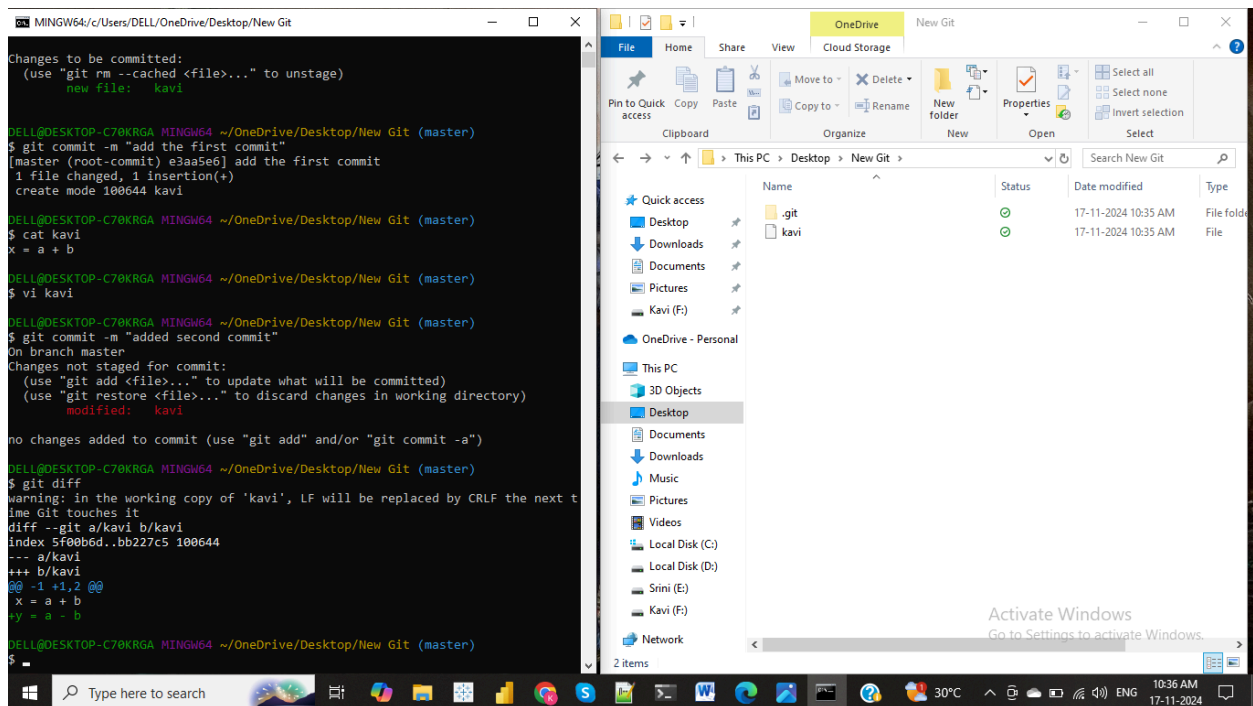
Create a file and check the file



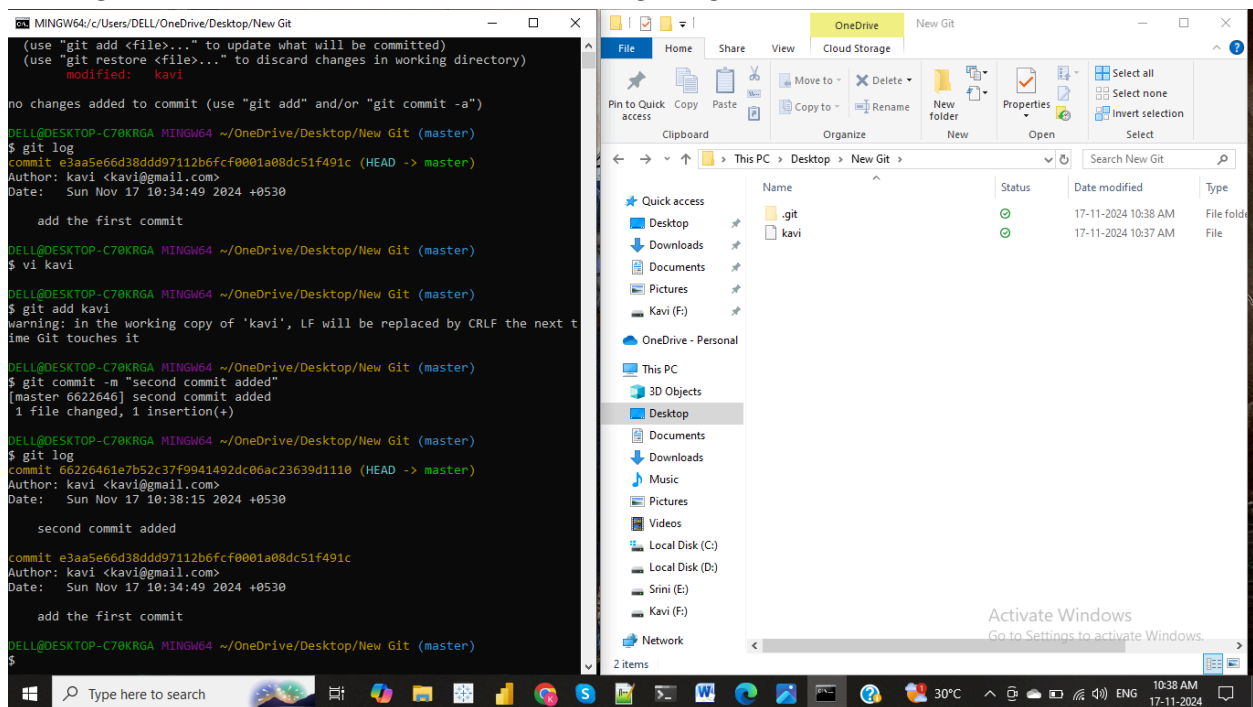
Edit the file and check status and added second commit



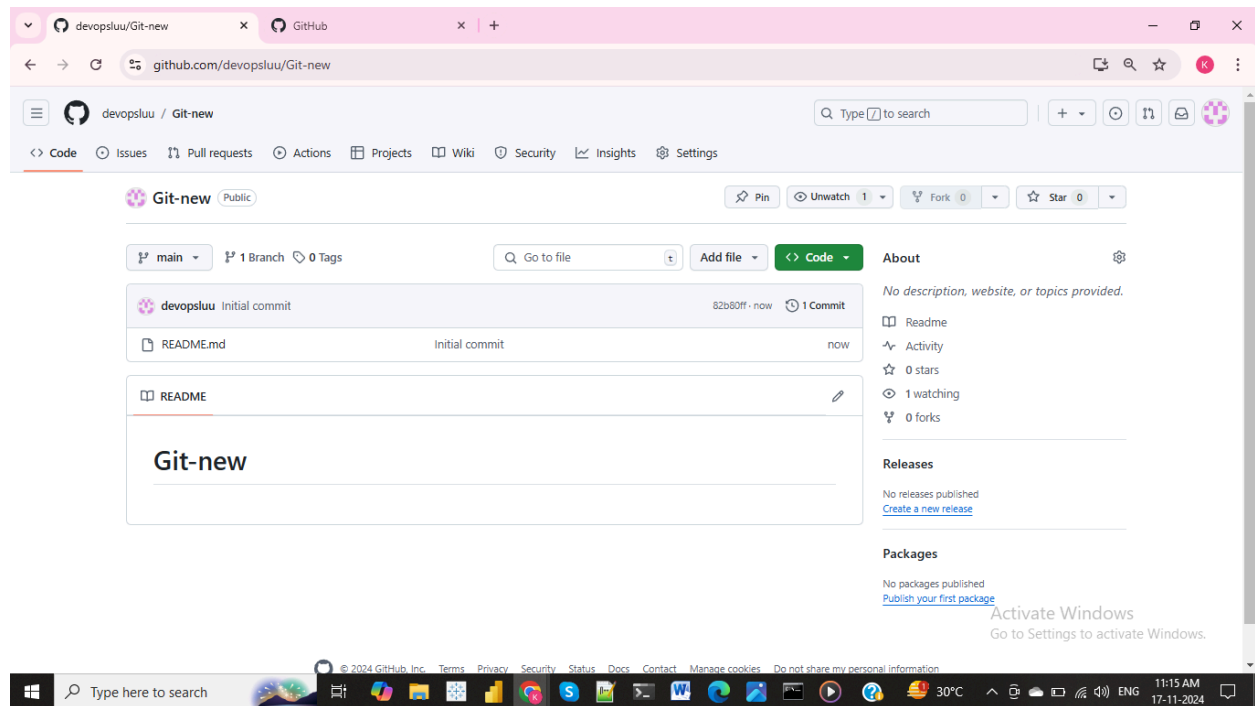
To check changes are made in file



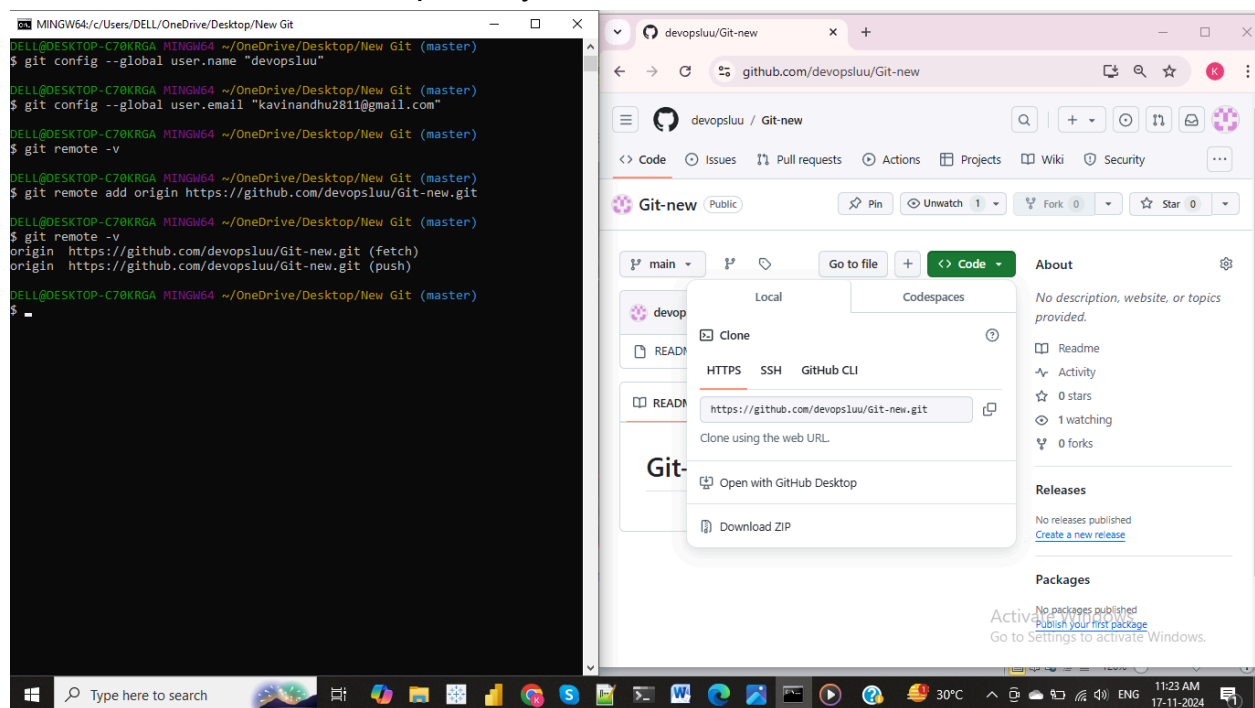
Adding the new line in file and check the git log



Created a new repository in GitHub account



Connect with the Github repository account



Create a new branch and push the file into Github

```
MINGW64/c/Users/DELL/OneDrive/Desktop/New Git
DELL@DESKTOP-C70KRG6 MINGW64 ~/OneDrive/Desktop/New Git (master)
$ git branch
* master

DELL@DESKTOP-C70KRG6 MINGW64 ~/OneDrive/Desktop/New Git (master)
$ git branch dev1

DELL@DESKTOP-C70KRG6 MINGW64 ~/OneDrive/Desktop/New Git (master)
$ git log dev1
commit 66226461e7b52c37f9941492dc06ac23639d1110 (HEAD -> master, dev1)
Author: kavi <kavi@gmail.com>
Date:   Sun Nov 17 10:38:15 2024 +0530

    second commit added

commit e3aa5e66d38dd97112b6fcf0001a08dc51f491c
Author: kavi <kavi@gmail.com>
Date:   Sun Nov 17 10:34:49 2024 +0530

    add the first commit

DELL@DESKTOP-C70KRG6 MINGW64 ~/OneDrive/Desktop/New Git (master)
$
```

Activate Windows
Go to Settings to activate Windows.

```
MINGW64/c/Users/DELL/OneDrive/Desktop/New Git
-4, --ipv4      option to transmit
                use IPv4 addresses only
-6, --ipv6      use IPv6 addresses only

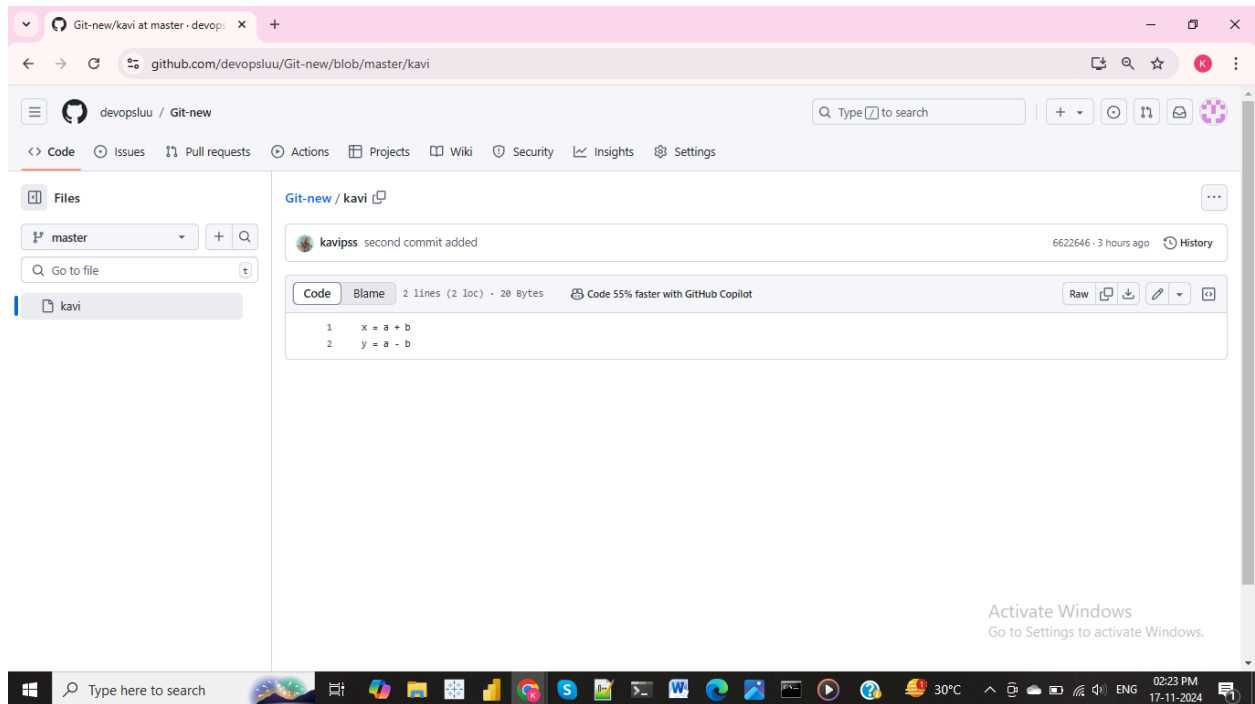
DELL@DESKTOP-C70KRG6 MINGW64 ~/OneDrive/Desktop/New Git (master)
$ ls
kavi

DELL@DESKTOP-C70KRG6 MINGW64 ~/OneDrive/Desktop/New Git (master)
$ cat kavi
x = a + b
y = a - b

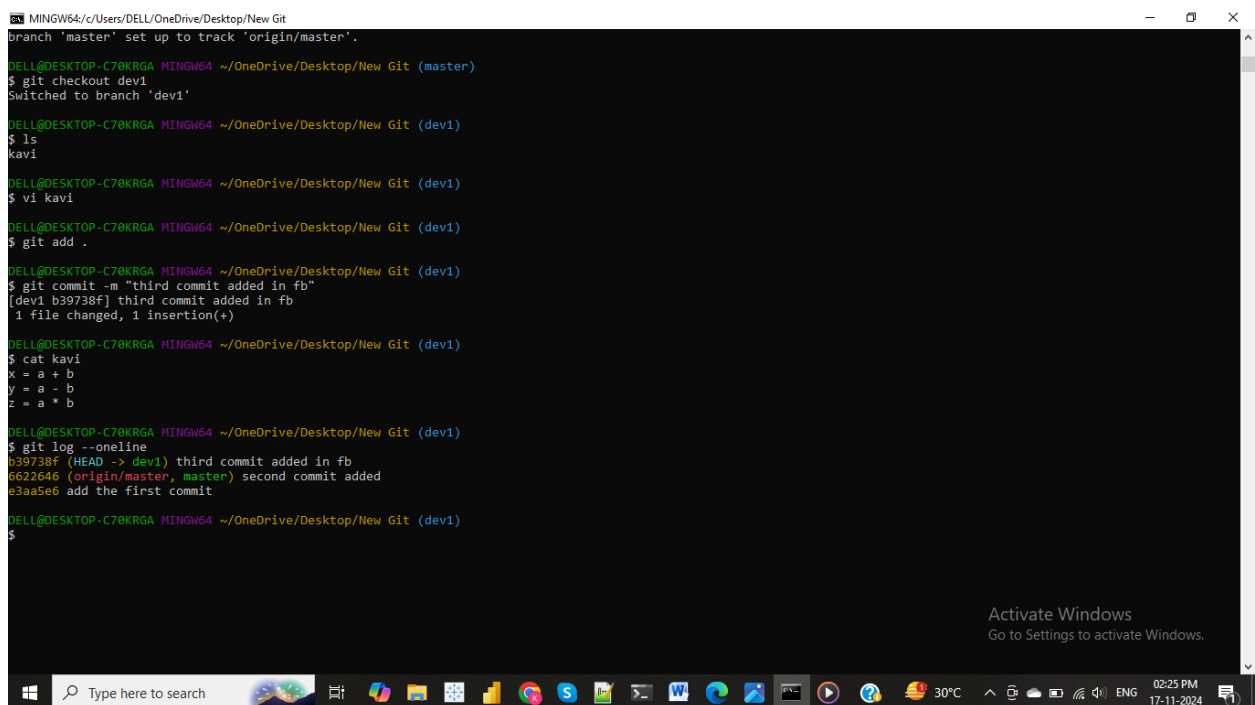
DELL@DESKTOP-C70KRG6 MINGW64 ~/OneDrive/Desktop/New Git (master)
$ git push --set-upstream origin master
Enumerating objects: 6, done.
Counting objects: 100% (6/6), done.
Delta compression using up to 8 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (6/6), 425 bytes | 70.00 KiB/s, done.
Total 6 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: Create a pull request for 'master' on GitHub by visiting:
remote:   https://github.com/devopsluu/Git-new/pull/new/master
remote:
To https://github.com/devopsluu/Git-new.git
 * [new branch]      master -> master
branch 'master' set up to track 'origin/master'.

DELL@DESKTOP-C70KRG6 MINGW64 ~/OneDrive/Desktop/New Git (master)
$
```

Activate Windows
Go to Settings to activate Windows.



Create a new feature branch from master branch in that edited the file and added 3rd commit.



Copy the last commit from dev1 branch and merge with master branch

```
MINGW64/c/Users/DELL/OneDrive/Desktop/New Git
DELL@DESKTOP-C70KRG6 MINGW64 ~/OneDrive/Desktop/New Git (dev1)
$ git log --oneline
b39738f (HEAD -> dev1) third commit added in fb
6622646 (origin/master, master, dev2) second commit added
e3aa5e6 add the first commit

DELL@DESKTOP-C70KRG6 MINGW64 ~/OneDrive/Desktop/New Git (dev1)
$ git checkout master
Switched to branch 'master'
Your branch is up to date with 'origin/master'.

DELL@DESKTOP-C70KRG6 MINGW64 ~/OneDrive/Desktop/New Git (master)
$ git cherry-pick ^C

DELL@DESKTOP-C70KRG6 MINGW64 ~/OneDrive/Desktop/New Git (master)
$ git cherry-pick b39738f
[master 954f3f6] third commit added in fb
Date: Sun Nov 17 14:25:05 2024 +0530
1 file changed, 1 insertion(+)

DELL@DESKTOP-C70KRG6 MINGW64 ~/OneDrive/Desktop/New Git (master)
$ cat kavi
x = a + b
y = a - b
z = a * b

DELL@DESKTOP-C70KRG6 MINGW64 ~/OneDrive/Desktop/New Git (master)
$
```

Git-new/kavi at master · devopsluu · GitHub

github.com/devopsluu/Git-new/blob/master/kavi

devopsluu / Git-new

Code Issues Pull requests Actions Projects Wiki Security Insights Settings

Files

master + Q

Go to file

kavi

Git-new / kavi

devopsluu third commit added in fb 954f3f6 · 1 minute ago History

Code Blame 3 lines (3 loc) · 30 Bytes Code 55% faster with GitHub Copilot Raw Download Edit View

```
1 x = a + b
2 y = a - b
3 z = a * b
```

Create another branch dev2 and pushed to Github

```
MINGW64/c/Users/DELL/OneDrive/Desktop/New Git
$ git push --set-upstream origin master
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Writing objects: 100% (3/3), 273 bytes | 136.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/devopsluu/Git-new.git
 6622646..954f3f6  master -> master
branch 'master' set up to track 'origin/master'.

DELL@DESKTOP-C70KRG6 MINGW64 ~/OneDrive/Desktop/New Git (master)
$ git checkout dev1
Switched to branch 'dev1'

DELL@DESKTOP-C70KRG6 MINGW64 ~/OneDrive/Desktop/New Git (dev1)
$ git push --set-upstream origin dev1
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Writing objects: 100% (3/3), 268 bytes | 44.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: Create a pull request for 'dev1' on GitHub by visiting:
remote:   https://github.com/devopsluu/Git-new/pull/new/dev1
remote:
To https://github.com/devopsluu/Git-new.git
 * [new branch]    dev1 -> dev1
branch 'dev1' set up to track 'origin/dev1'.

DELL@DESKTOP-C70KRG6 MINGW64 ~/OneDrive/Desktop/New Git (dev1)
$ git checkout dev2
Switched to branch 'dev2'

DELL@DESKTOP-C70KRG6 MINGW64 ~/OneDrive/Desktop/New Git (dev2)
$ git push --set-upstream origin dev2
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: Create a pull request for 'dev2' on GitHub by visiting:
remote:   https://github.com/devopsluu/Git-new/pull/new/dev2
remote:
To https://github.com/devopsluu/Git-new.git
 * [new branch]    dev2 -> dev2
branch 'dev2' set up to track 'origin/dev2'.

DELL@DESKTOP-C70KRG6 MINGW64 ~/OneDrive/Desktop/New Git (dev2)
$
```

Branches - devopsluu/Git-new

github.com/devopsluu/Git-new/branches

Branches

Overview Yours Active Stale All

Search branches...

Default

Branch	Updated	Check status	Behind Ahead	Pull request
main	3 hours ago		Default	

Your branches

Branch	Updated	Check status	Behind Ahead	Pull request
dev2	now		1 2	
dev1	1 minute ago		1 3	
master	2 minutes ago		1 3	

Active branches

Branch	Updated	Check status	Behind Ahead	Pull request
dev2	now		1 2	
dev1	1 minute ago		1 3	