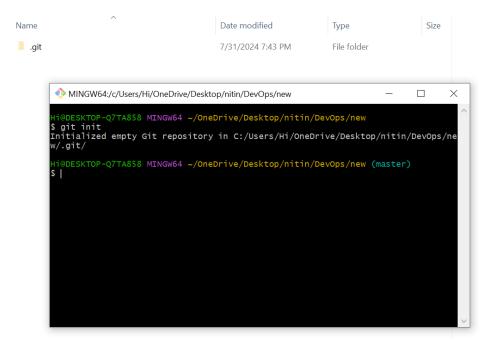
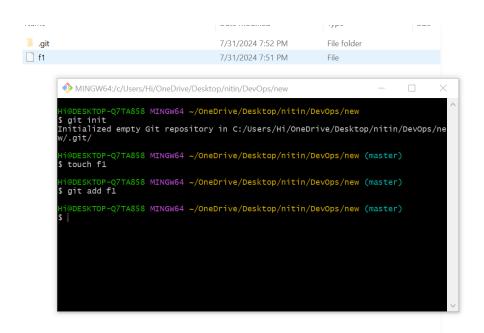
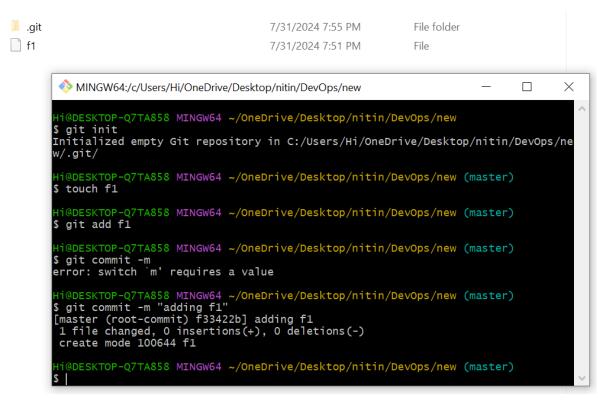
# **GIT Assignment**



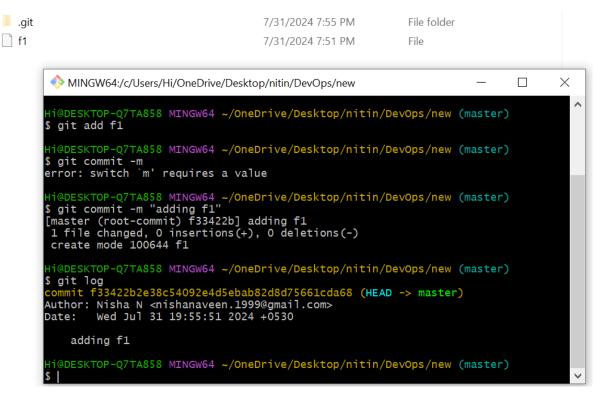
### Initating repository using git init



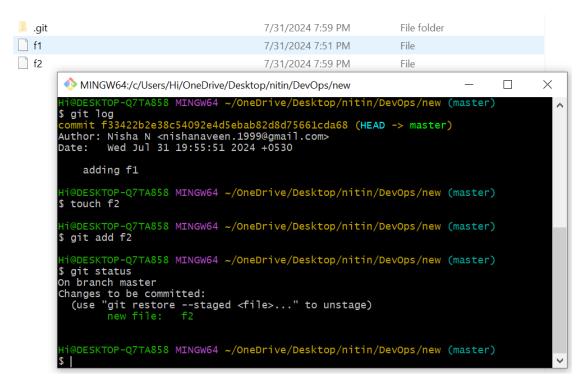
Preparing the file for changes using git add



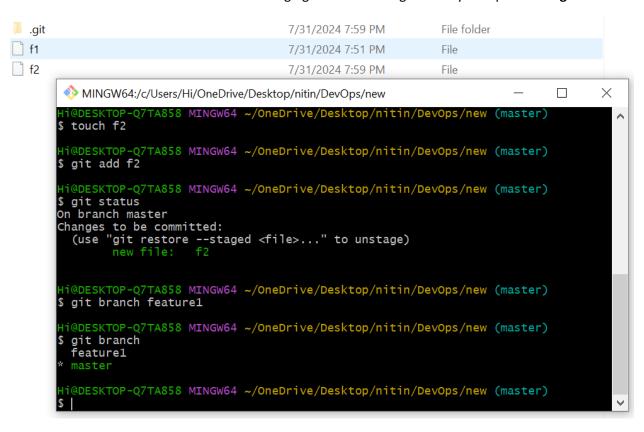
The changes saved is committed using git commit -m



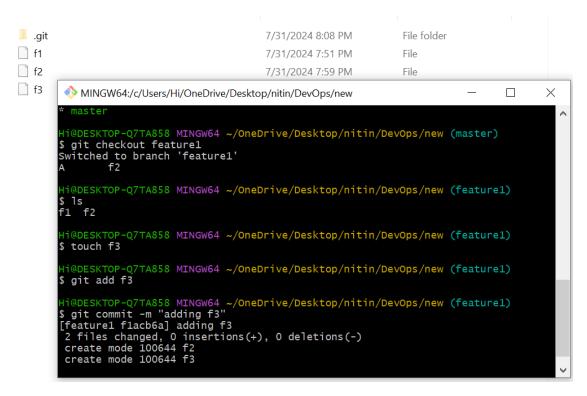
To check the history of the files and folder created we use git log



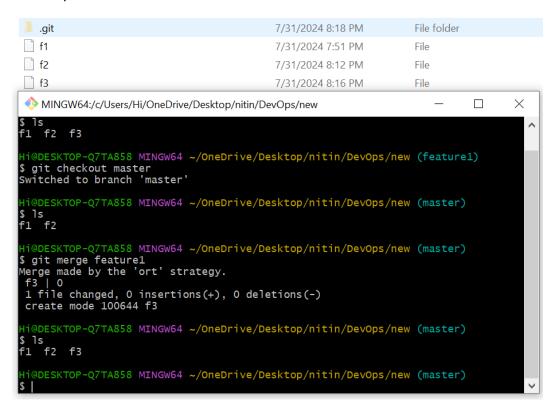
To check the status of the file whether it is staging area or working directory or repo we use git status



To create a branch we use **git branch branchname** which us used to work on the codes and by using **git branch** we can check the branches in the repository



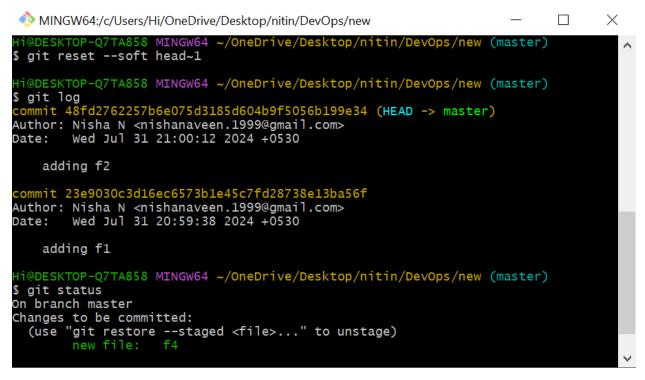
We can switch the branches using **git checkout branchname** and we have added a file f3 which shall be seen only in the feature



The file, which is created in feature1 branch, can be merged into the master branch using **git merge branchname** 

```
MINGW64:/c/Users/Hi/OneDrive/Desktop/nitin/DevOps/new
                                                                  X
li@DESKTOP-Q7TA858 MINGW64 ~/OneDrive/Desktop/nitin/DevOps/new (master)
$ git reset --hard head~1
HEAD is now at 38cdc4d adding f2
Hi@DESKTOP-Q7TA858 MINGW64 ~/OneDrive/Desktop/nitin/DevOps/new (master)
$ 1s
Hi@DESKTOP-Q7TA858 MINGW64 ~/OneDrive/Desktop/nitin/DevOps/new (master)
Author: Nisha N <nishanaveen.1999@gmail.com>
Date: Wed Jul 31 20:48:57 2024 +0530
   adding f2
commit f33422b2e38c54092e4d5ebab82d8d75661cda68
Author: Nisha N <nishanaveen.1999@gmail.com>
Date: Wed Jul 31 19:55:51 2024 +0530
   adding f1
Hi@DESKTOP-Q7TA858 MINGW64 ~/OneDrive/Desktop/nitin/DevOps/new (master)
```

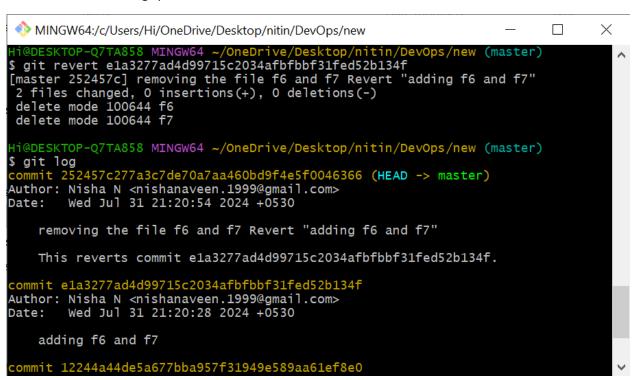
To remove the file we can use git reset --hard head~n, in the above case f3 file is removed



To move the file to staging area we can use **git reset --soft head~n**, in the above case f4 file is moved to staging area

To move the file to working directory we can use **git reset --mixed head~n**, in the above case f2 and f4 file is moved to working space

Hi@DESKTOP-Q7TA858 MINGW64 ~/OneDrive/Desktop/nitin/DevOps/new (master)



To revert the the files we can use git revert commit id to go back to the previous commit.

```
git checkout master
Switched to branch 'master'
       f3
Hi@DESKTOP-Q7TA858 MINGW64 ~/OneDrive/Desktop/nitin/DevOps/new (master)
$ git cherry-pick db7aa357223bfea55e1857e3c0348ec663923f24
[master 1805cc0] adding f6
Date: Wed Jul 31 21:41:08 2024 +0530
1 file changed, 0 insertions(+), 0 deletions(-) create mode 100644 f6
$ git log
          5cc0dd757377e8dcffb2be3ca50061faa70b0 (HEAD -> master)
Author: Nisha N <nishanaveen.1999@gmail.com>
       Wed Jul 31 21:41:08 2024 +0530
   adding f6
commit 252457c277a3c7de70a7aa460bd9f4e5f0046366
Author: Nisha N <nishanaveen.1999@gmail.com>
       Wed Jul 31 21:20:54 2024 +0530
Date:
   removing the file f6 and f7 Revert "adding f6 and f7"
   This reverts commit e1a3277ad4d99715c2034afbfbbf31fed52b134f.
commit e1a3277ad4d99715c2034afbfbbf31fed52b134f
```

Copying a commit i.e a file from one branch to another using git cherry-pick commit id

```
MINGW64:/c/Users/Hi/OneDrive/Desktop/nitin/DevOps/new
                                                                                              X
Hi@DESKTOP-Q7TA858 MINGW64 ~/OneDrive/Desktop/nitin/DevOps/new (feature1)
 git rebase -i head~3
[detached HEAD 3aae9d7] commits consolidated # This is a combination of 3 commits.

Date: Wed Jul 31 21:13:19 2024 +0530
2 files changed, 1 insertion(+)
create mode 100644 f3
create mode 100644 f6
Successfully rebased and updated refs/heads/feature1.
Hi@DESKTOP-Q7TA858 MINGW64 ~/OneDrive/Desktop/nitin/DevOps/new (feature1)
$ git log
  mmit 3aae9d70eaade8974da674e73afae1ab1bb6e9b1 (HEAD -> feature1)
Author: Nisha N <nishanaveen.1999@gmail.com>
Date: Wed Jul 31 21:13:19 2024 +0530
    commits consolidated # This is a combination of 3 commits.
    adding f3
    adding f6
    updated f3
    mit 166e3bda05831c216e6d3cf7eb85f45931342f26
Author: Nisha N <nishanaveen.1999@gmail.com>
         Wed Jul 31 21:12:33 2024 +0530
Date:
```

We can consolidate the number of commits into one using **git rebase-i head~n** by selecting the commits in editor mode and squashing them.

```
S git stash drop
Dropped refs/stash@{0} (db084307cd0ccdeb2f14851d622f3a64475dfac0)

Hi@DESKTOP-Q7TA858 MINGW64 ~/OneDrive/Desktop/nitin/DevOps/new (master)
S cat f1
Hello all

Hi@DESKTOP-Q7TA858 MINGW64 ~/OneDrive/Desktop/nitin/DevOps/new (master)
S git stash
Saved working directory and index state WIP on master: 1805cc0 adding f6

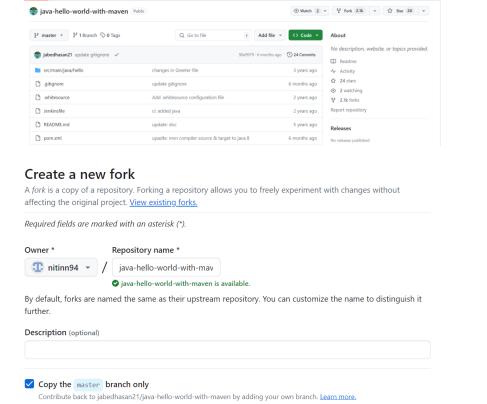
Hi@DESKTOP-Q7TA858 MINGW64 ~/OneDrive/Desktop/nitin/DevOps/new (master)
S git stash pop
On branch master
Changes not staged for commit:
(use "git add <file>..." to update what will be committed)
(use "git restore <file>..." to discard changes in working directory)
modified: f1

no changes added to commit (use "git add" and/or "git commit -a")
Dropped refs/stash@{0} (5ad713936d6338d432c2e8cbddb215ff9ef55441)

Hi@DESKTOP-Q7TA858 MINGW64 ~/OneDrive/Desktop/nitin/DevOps/new (master)
S git stash drop
Dropped refs/stash@{0} (0299efb6c70312c5a904ab69ff77681490944baf)

Hi@DESKTOP-Q7TA858 MINGW64 ~/OneDrive/Desktop/nitin/DevOps/new (master)
```

We can store the content of the file by using **git stash** without committing, **git stash pop** will give the information of the file and **git stash drop** will the content from the file.

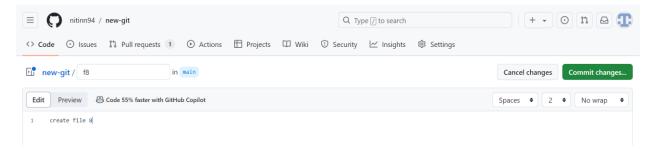


In the above we have used git fork to have a copy of the repository to work on a project

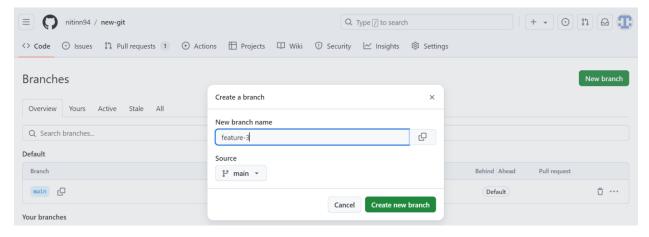
# Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? <u>Import a repository.</u>

Required fields are marked with an asterisk (\*). Owner \* Repository name \* nitinn94 new--git new--git is available. Great repository names are short and memorable. Need inspiration? How about special-rotary-phone? Description (optional) Anyone on the internet can see this repository. You choose who can commit. Private You choose who can see and commit to this repository. Initialize this repository with: Add a README file This is where you can write a long description for your project. Learn more about READMEs. Add .gitignore .gitignore template: None \* Choose which files not to track from a list of templates. Learn more about ignoring files. Choose a license License: None ▼ A license tells others what they can and can't do with your code. Learn more about licenses. This will set & main as the default branch. Change the default name in your settings. (i) You are creating a public repository in your personal account. Create repository ☆ Star new-qit Public Updated 2 days ago



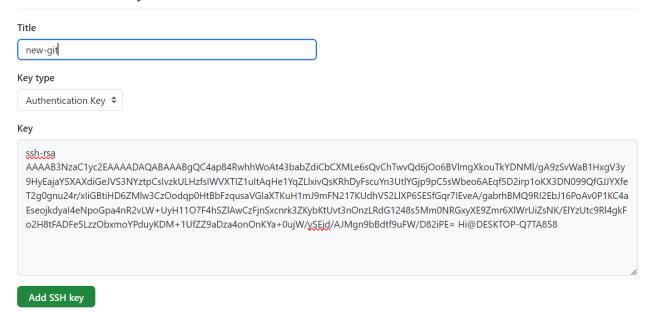
### Creating a file in the githib i.e file f8



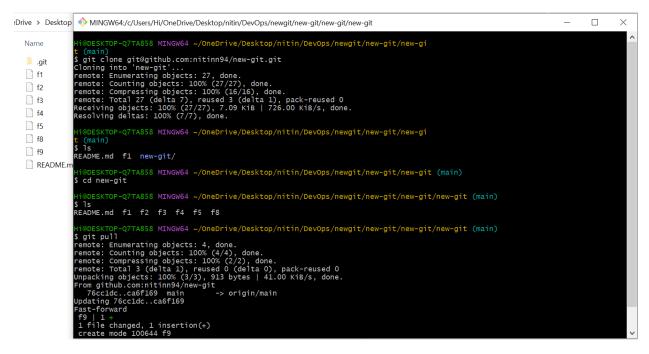
#### Creating a branch in githib i.e feature-3

To establish a connection between local repository and central repository we use **ssh-keygen** –**t rsa** to generate public key.

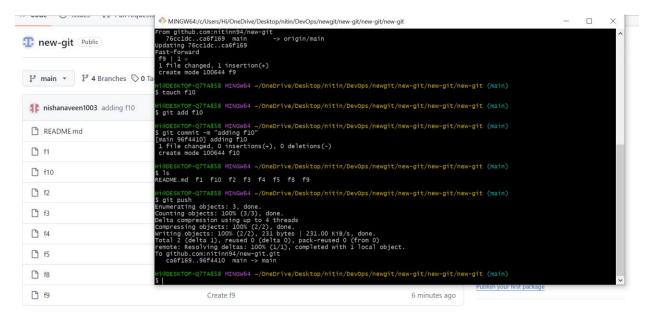
# Add new SSH Key



To add the public key into the git hub to access the local repository and central repository.



Using **git clone** and ssh url we have can access local and remote repository . We have added a file f9 in remote repository and have used git pull to pull the file into the local repository



Using **git push** I have pushed the file from the local repository to remote repository. i.e f10 is moved to the remote repository

```
HINDESKTOP-07TA858 MINGW64 -/OneDrive/Desktop/nitin/DevOps/newgit/new-git/new-git/new-git (main)

S git tag file-3 e497d6c8acb4df0d2ff88b1043bfe962d56ec053

HINDESKTOP-07TA858 MINGW64 -/OneDrive/Desktop/nitin/DevOps/newgit/new-git/new-git/new-git (main)

S git log
commit 9874410776c73aa9flae882f743labf8c6097301 (HEAD -> main, tag: file3, origin/main, origin/HEAD)
Author: Nisha N -nishanaveen.1999@gmain1.com-
Date: Thu Aug 1 13:12:132 2024 +0530

adding flo
commit casf169b935a612f9bf83dc2bd122baefdcce2bd
Author: nitinn94 -nitin.naveen100@gmail.com-
Date: Thu Aug 1 13:12:18 2024 +0530

Create f9

commit 76ccldclefa0870fc6f7b927ca9360864e07e334 (origin/feature-3)
Author: nitinn94 -nitin.naveen100@gmail.com-
Date: Thu Aug 1 12:51:27 2024 +0530

Create f8

commit 73See00c3566e284655171f69fa7f5cf89e08b8b (origin/feature-2)
Author: nitinn94 -nitin.naveen100@gmail.com-
Date: Tu Jul 30 19:15:57 2024 +0530

Create f5

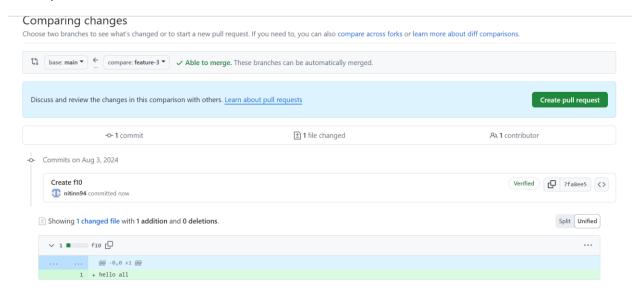
commit 5addbaffacbe93406599d36ddad23a5f99cx121d3
Author: Nisha N -nishanaveen.1999@gmail.com-
Date: Thu Jul 25 19:56:24 2024 +0530

adding f4

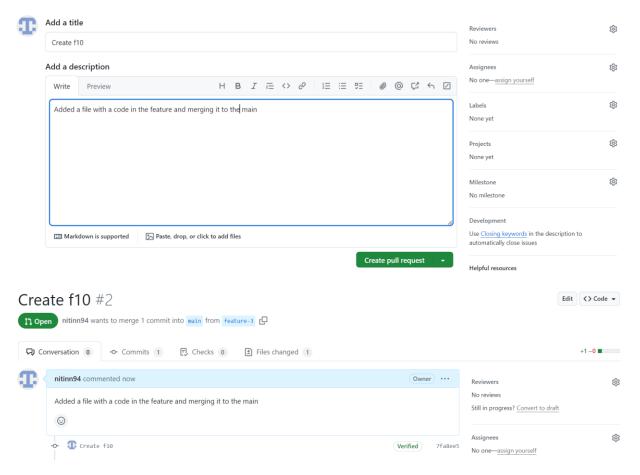
commit e497d6c8acb4df0d2ff88b1043bfe962d56ec053 (tag: file-3)
Author: nitinn94 -nitin.naveen1000gmail.com-
Date: Thu Jul 25 19:55:31 2024 +0530
```

Using git tag tagname commit id I have assigned a name to the f3 as file-3.

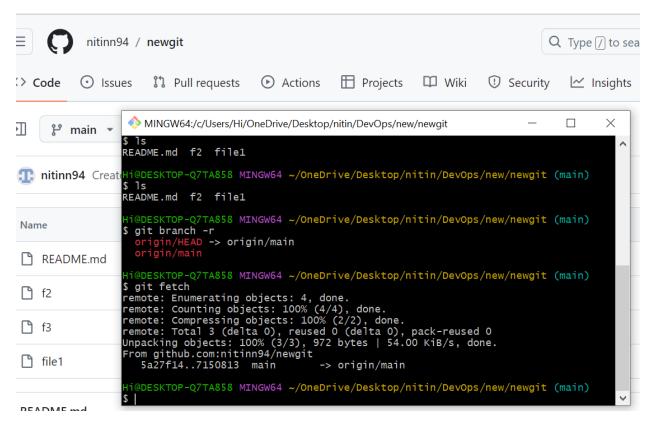
#### Pull request



## Created a file 10 in the feature 3 and will create a pull request to merge it to the main branch



Created a pull request which has to approved by the organization.



We have created file f3 in the central repository; using **Git fetch** we are trying to copy the changes into the specified branch.

```
MINGW64:/c/Users/Hi/OneDrive/Desktop/nitin/DevOps/new/newgit

README.md f2 file1

Hi@DESKTOP-Q7TA858 MINGW64 ~/OneDrive/Desktop/nitin/DevOps/new/newgit (main)

$ git checkout origin/main
Note: switching to 'origin/main'.

You are in 'detached HEAD' state. You can look around, make experimental changes and commit them, and you can discard any commits you make in this state without impacting any branches by switching back to a branch.

If you want to create a new branch to retain commits you create, you may do so (now or later) by using -c with the switch command. Example:

git switch -c <new-branch-name>

Or undo this operation with:

git switch -

Turn off this advice by setting config variable advice.detachedHead to false

HEAD is now at 7150813 Create f3

Hi@DESKTOP-Q7TA858 MINGW64 ~/OneDrive/Desktop/nitin/DevOps/new/newgit ((7150813.
..))

$ 18

README.md f2 f3 file1
```

The files is in the origin/main which can be merged if required using git merge origin/main.