

# Name : Barathkumar J K

## Assignment 1

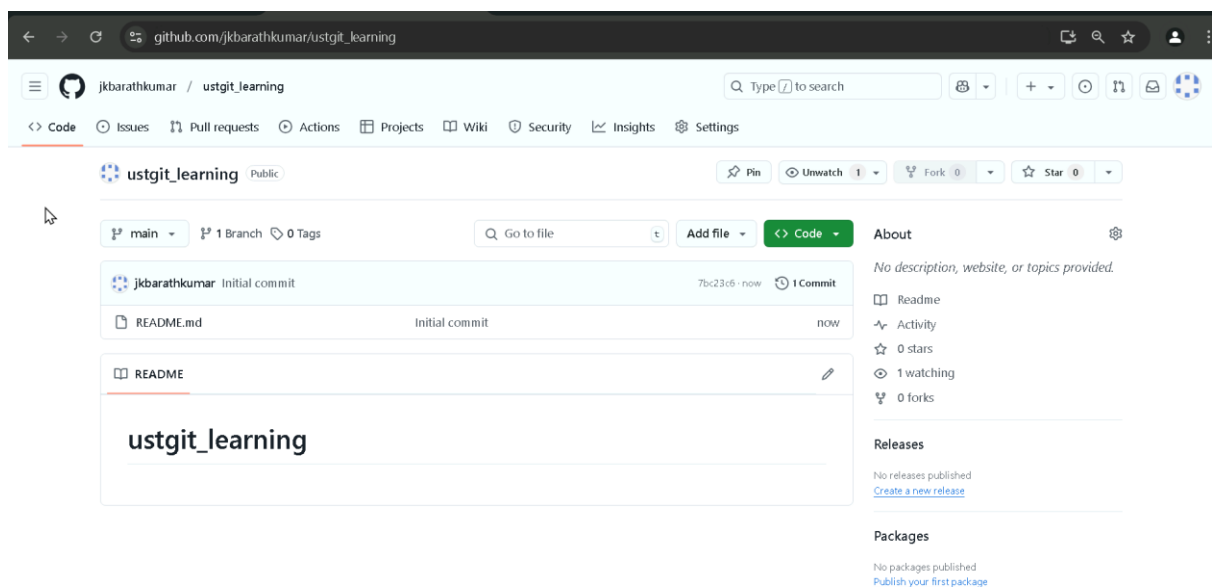
### GIT

1. `git init` (Initialize a new git repository in local machine to particular directory)  
`ls -la` (Listing the hidden files to see whether .git is created )

```
Administrator@77d2e6b99e1b5c6 MINGW64 ~/Downloads/learning_ust
$ git init
Initialized empty Git repository in C:/Users/Administrator/Downloads/learning_ust/.git/

Administrator@77d2e6b99e1b5c6 MINGW64 ~/Downloads/learning_ust (master)
$ ls -la
total 12
drwxr-xr-x 1 Administrator 197121 0 Jan  3 11:53 ./
drwxr-xr-x 1 Administrator 197121 0 Jan  3 11:53 ../
drwxr-xr-x 1 Administrator 197121 0 Jan  3 11:53 .git/
```

2. Created new repository in github as `ustgit\_learning`



3. Setup the remote URL

```
Administrator@77d2e6b99e1b5c6 MINGW64 ~/Downloads/learning_ust (master)
$ git remote add origin "https://github.com/jkbarathkumar/ustgit_learning.git"
```

To verify the remote URL is added check in `git config --list`

```
Administrator@77d2e6b99e1b5c6 MINGW64 ~/Downloads/learning_ust (master)
$ git config --list
diff.astextplain.textconv=astextplain
filter.lfs.clean=git-lfs clean -- %f
filter.lfs.smudge=git-lfs smudge -- %f
filter.lfs.process=git-lfs filter-process
filter.lfs.required=true
http.sslbackend=openssl
http.sslcainfo=C:/Program Files/Git/mingw64/etc/ssl/certs/ca-bundle.crt
core.autocrlf=true
core.fscache=true
core.symlinks=false
pull.rebase=false
credential.helper=manager
credential.https://dev.azure.com.usehttppath=true
init.defaultbranch=master
user.name=jkbarathkumar
user.email=jkbarathkumar@gmail.com
core.repositoryformatversion=0
core.filemode=false
core.bare=false
core.logallrefupdates=true
core.symlinks=false
core.ignorecase=true
remote.origin.url=https://github.com/jkbarathkumar/ustgit_learning.git
remote.origin.fetch=+refs/heads/*:refs/remotes/origin/*
```

#### 4. Setup username and email

```
git config --global user.name "jkbarathkumar"
git config --global user.email "jkbarathkumar@gmail.com"
```

To verify username and email is configured `git config --list`

#### 5. Pull the files from that remote repository `git pull origin main`

```
Administrator@77d2e6b99e1b5c6 MINGW64 ~/Downloads/learning_ust (master)
$ git pull origin main
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (3/3), 872 bytes | 87.00 KiB/s, done.
From https://github.com/jkbarathkumar/ustgit_learning
* branch                main                -> FETCH_HEAD
* [new branch]          main                -> origin/main

Administrator@77d2e6b99e1b5c6 MINGW64 ~/Downloads/learning_ust (master)
$ ls
README.md
```

#### 6. Create New file

```
Administrator@77d2e6b99e1b5c6 MINGW64 ~/Downloads/learning_ust (master)
$ touch file1.txt

Administrator@77d2e6b99e1b5c6 MINGW64 ~/Downloads/learning_ust (master)
$ touch file2.txt file3.txt

Administrator@77d2e6b99e1b5c6 MINGW64 ~/Downloads/learning_ust (master)
$ ls
README.md  file1.txt  file2.txt  file3.txt
```

7. Add the files to staging area `git add .`

```
Administrator@77d2e6b99e1b5c6 MINGW64 ~/Downloads/learning_ust (master)
$ git add .
```

8. Git commit with message. `git commit -m "New files added" `

```
Administrator@77d2e6b99e1b5c6 MINGW64 ~/Downloads/learning_ust (master)
$ git commit -m "New files added"
[master f3b6aed] New files added
3 files changed, 0 insertions(+), 0 deletions(-)
create mode 100644 file1.txt
create mode 100644 file2.txt
create mode 100644 file3.txt
```

9. Before pushing to github check which branch currently you are. `git branch`

```
Administrator@77d2e6b99e1b5c6 MINGW64 ~/Downloads/learning_ust (master)
$ git branch
* master
```

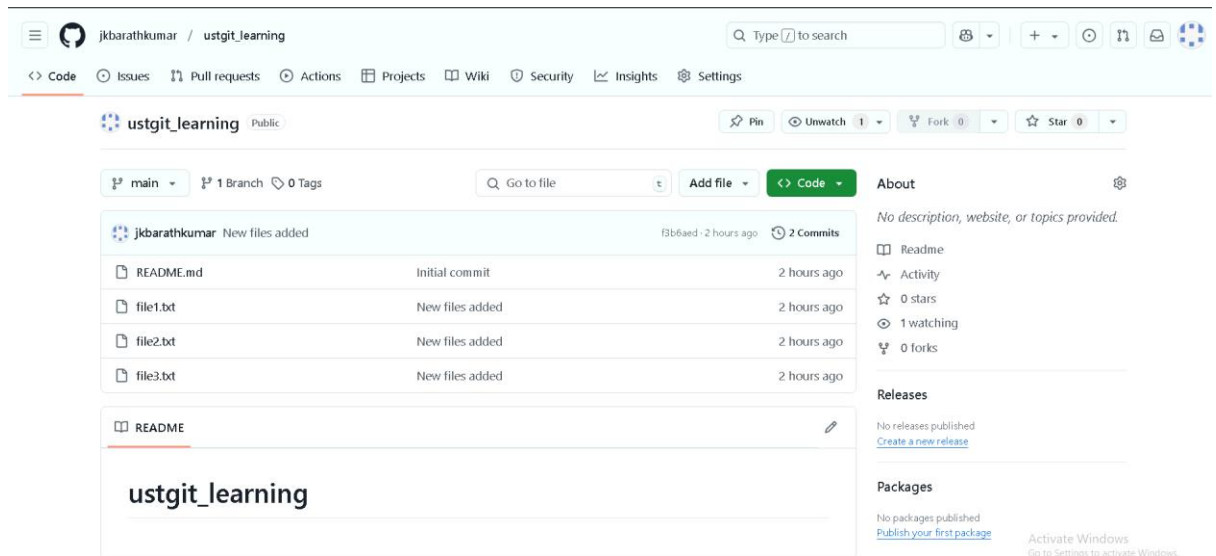
Renaming the branch master to main because when we given git init it will be in default master but in ui github website it will be main default so that we must change the branch name master to main `git branch -m master main`

```
Administrator@77d2e6b99e1b5c6 MINGW64 ~/Downloads/learning_ust (master)
$ git branch -m master main

Administrator@77d2e6b99e1b5c6 MINGW64 ~/Downloads/learning_ust (main)
$ git branch
* main
```

10. Now push the changes to repo from staging area `git push origin main`

```
Administrator@77d2e6b99e1b5c6 MINGW64 ~/Downloads/learning_ust (main)
$ git push origin main
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 288 bytes | 288.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/jkbarathkumar/ustgit_learning.git
7bc23c6..f3b6aed  main -> main
```



## Summary

1. Git init (Initialize a new git repository in local machine)
2. Git pull (Pulls the latest changes from the remote repository to your local machine)
3. Git add . (Moves the changes we made to the staging area (preparing them to be committed))
4. Git commit -m "files added" (Commits the changes from the staging area to the local repository with a descriptive message)
5. Git push origin main (Pushes the committed changes from your local repository to the main branch of the remote GitHub repository)

## 1. Status and logs

```
Administrator@77d2e6b99e1b5c6 MINGW64 ~/Downloads/learning_ust (main)
$ git status
On branch main
nothing to commit, working tree clean
```

`git status` is used to see changes, staged files, untracked files.

```

Administrator@77d2e6b99e1b5c6 MINGW64 ~/Downloads/learning_ust (main)
$ git log
commit 066c473a85de4bea632ff93f3a1d8565d7b240de (HEAD -> main, origin/main)
Author: jkbarathkumar <140275835+jkbarathkumar@users.noreply.github.com>
Date: Fri Jan 3 15:07:12 2025 +0530

    Update README.md

commit f3b6aedefc4bfe82204a652e6da96a3233784797
Author: jkbarathkumar <jkbarathkumar@gmail.com>
Date: Fri Jan 3 12:11:26 2025 +0530

    New files added

commit 7bc23c6d1781fbd8ed76960831608c467a2acf0a
Author: jkbarathkumar <140275835+jkbarathkumar@users.noreply.github.com>
Date: Fri Jan 3 11:58:09 2025 +0530

    Initial commit

```

`git log` Displays commit history with details.

## Branches

```

Administrator@77d2e6b99e1b5c6 MINGW64 ~/Downloads/learning_ust (main)
$ git branch temp_branch

Administrator@77d2e6b99e1b5c6 MINGW64 ~/Downloads/learning_ust (main)
$ git branch
* main
  temp_branch

Administrator@77d2e6b99e1b5c6 MINGW64 ~/Downloads/learning_ust (main)
$ git checkout temp_branch
Switched to branch 'temp_branch'

Administrator@77d2e6b99e1b5c6 MINGW64 ~/Downloads/learning_ust (temp_branch)
$ |

```

1. `git branch temp\_branch` creating new temp\_branch.
2. `git branch` is used to view all the branches.
3. `git checkout temp\_branch` switching to temp\_branch from current branch.

