Module 2 : Git Assignment – 1

Tasks To Be Performed

1. Based on what you have learnt in the class, do the following steps:

a. Create a new folder
b. Put the following files in the folder
- Code.txt
- Log.txt
- Output.txt

c. Stage the Code.txt and Output.txt files
d. Commit them
e. And finally push them to GitHub

2. Please share the commands for the above points

Steps

1. Using Ubuntu
2. Navigate to terminal
3. Type the command > sudo mkdir devops
4. New directory is created
5. Install git > sudo apt install git
6. In the terminal enter the command git –version

```
ubuntu@ubuntu2004:~/devops$ git --version
git version 2.25.1
ubuntu@ubuntu2004:~/devops$
```

7. devops is the folder created and there no files in it.

```
ubuntu@ubuntu2004:~/devops$ ls -ltr
total 0
ubuntu@ubuntu2004:~/devops$
```

8. I will create 3 (three) text files using the touch or nano or vi command from the terminal

```
ubuntu@ubuntu2004:~/devops$ sudo touch Code.txt Output.txt Log.txt
ubuntu@ubuntu2004:~/devops$ ls -ltr
total 0
-rw-r--r-- 1 root root 0 Feb 28 02:15 Output.txt
-rw-r--r-- 1 root root 0 Feb 28 02:15 Log.txt
-rw-r--r-- 1 root root 0 Feb 28 02:15 Code.txt
ubuntu@ubuntu2004:~/devops$
```

9. There are no contents in the txt files

```
ubuntu@ubuntu2004:~/devops$ cat Output.txt
ubuntu@ubuntu2004:~/devops$ cat Log.txt
ubuntu@ubuntu2004:~/devops$ cat Code.txt
ubuntu@ubuntu2004:~/devops$
```

10. Now I will initialize the devops folder using the command > git init
11. Unless initialized , it will not be a git repository. You can use the command git status and you will get an error

```
ubuntu@ubuntu2004:~/devops$ git status
fatal: not a git repository (or any of the parent directories): .git
ubuntu@ubuntu2004:~/devops$
```

12. Navigate to the devops folder and enter the command **git init**

```
ubuntu@ubuntu2004:~/devops$ sudo git init
Initialized empty Git repository in /home/ubuntu/devops/.git/
ubuntu@ubuntu2004:~/devops$
```

13. Now enter the command git status in the terminal

```
ubuntu@ubuntu2004:~/devops$ sudo git status
On branch master

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        Code.txt
        Log.txt
        Output.txt

nothing added to commit but untracked files present (use "git add" to track)
ubuntu@ubuntu2004:~/devops$
```

14. You can see that the files are in untracked status or not committed.

15. If you want to track all the files in the devops folder we can type the command git add.

16. The requirement is only code and output text files to be staged

17. Now we will use the command git add and the file name to be staged

```
ubuntu@ubuntu2004:~/devops$ ls -ltr
total 0
-rw-r--r-- 1 root root 0 Feb 28 02:15 Output.txt
-rw-r--r-- 1 root root 0 Feb 28 02:15 Log.txt
-rw-r--r-- 1 root root 0 Feb 28 02:15 Code.txt
ubuntu@ubuntu2004:~/devops$ sudo git add Code.txt
ubuntu@ubuntu2004:~/devops$ sudo git add Output.txt
```

18. Refer the screen shot and you can see that the Code and Output text files are staged. The log text files shows as Untracked files.

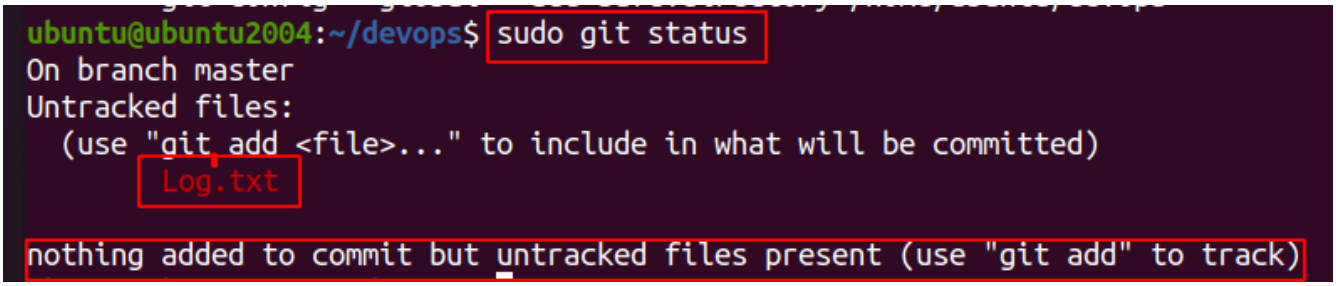
```
ubuntu@ubuntu2004:~/devops$ sudo git add Code.txt
ubuntu@ubuntu2004:~/devops$ sudo git add Output.txt
ubuntu@ubuntu2004:~/devops$ git status
fatal: detected dubious ownership in repository at '/home/ubuntu/devops'
To add an exception for this directory, call:

        git config --global --add safe.directory /home/ubuntu/devops
ubuntu@ubuntu2004:~/devops$ sudo git status
On branch master

No commits yet

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

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        Log.txt
```

19. Now we are going to commit the staged files that is Code and Output files with a message “My First Commit”

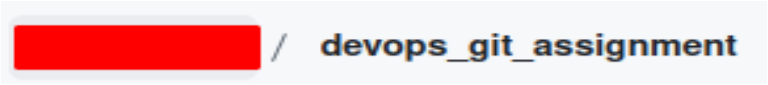
20. Go to the terminal and type the command git commit -m “My First Commit – Code and Output Text Files”.

```
ubuntu@ubuntu2004:~/devops$ sudo git commit -m "My First Commit Code and Output text files"
[master (root-commit) 0cb3600] My First Commit Code and Output text files
 Committer: root <root@ubuntu2004.linuxvmimages.local>
Your name and email address were configured automatically based
on your username and hostname. Please check that they are accurate.
You can suppress this message by setting them explicitly. Run the
following command and follow the instructions in your editor to edit
your configuration file:

    git config --global --edit

After doing this, you may fix the identity used for this commit with:

    git commit --amend --reset-author

 2 files changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 Code.txt
 create mode 100644 Output.txt
```

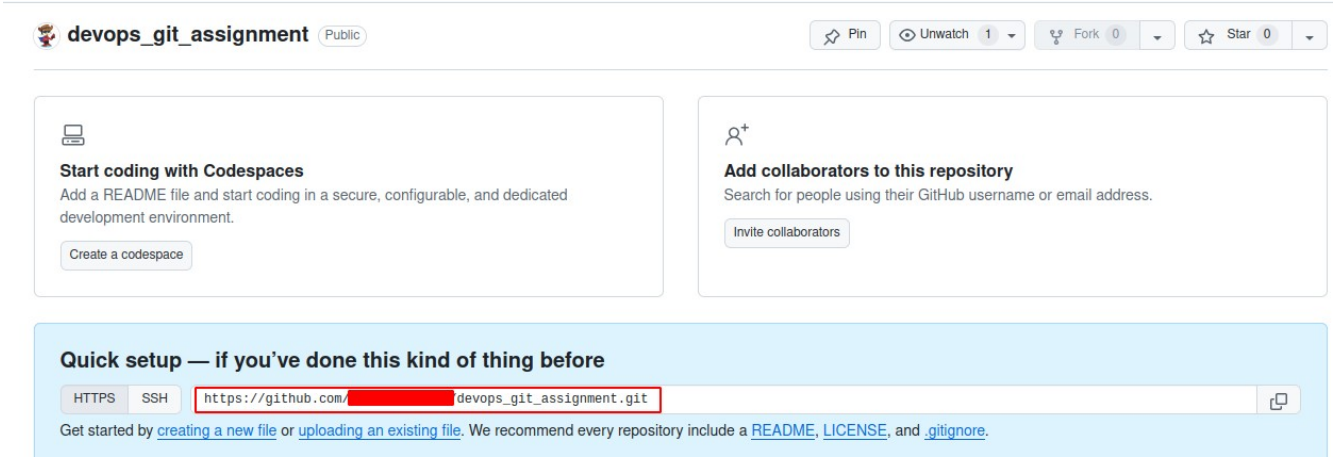
21. Now type git status and shows only Log.txt as the only file which is in untracked status.



22. I already have a github account and I will create a new repository devops_git_assignment. It is a public profile.

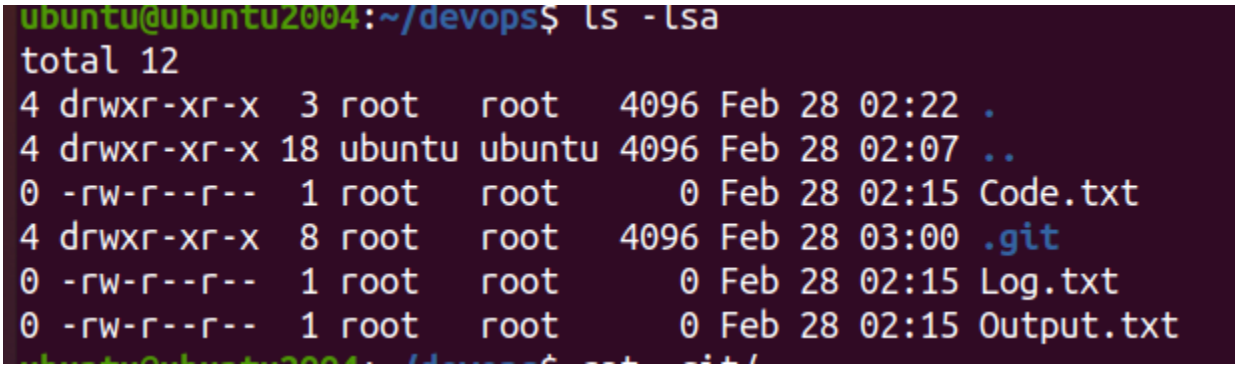


23. In the homepage of the newly created repo you can find the URL needed to push the text files from local to remote.

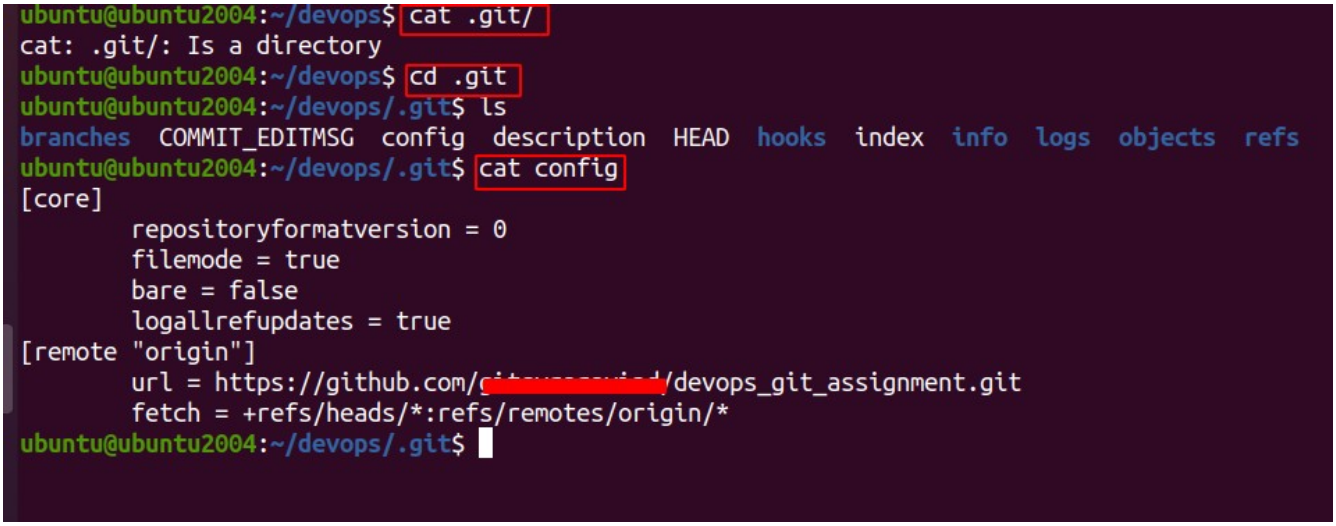


24. I will add my local repo to the Github repo which is remote
25. The command to be used is
26. git remote add origin <github url>. The address of the remote address.
27. So when we send the content from local to remote it is call push.

28. Now in the terminal type ls -lsa



29. Navigate to the hidden folder .get
30. type cat config and you can see the remote URL added to the config file



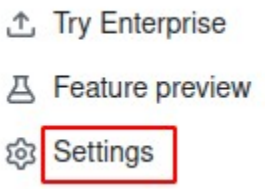
the remote URL has been added in the configuration file. Now I will try to push the text files from the master branch into the github repository.

31. I am getting an error when I try to push the files from the master branch.

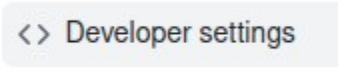
32. So we need a token to be setup. Navigate to github repository.

33. Click on the top right hand corner icon

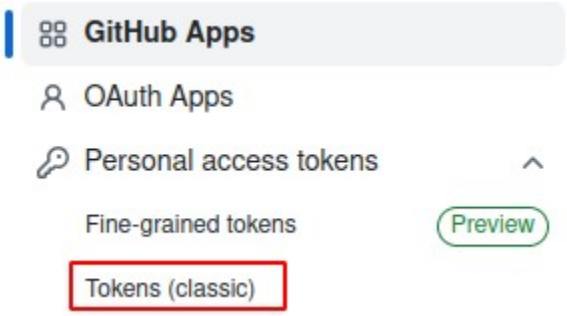
34. Click on Setting



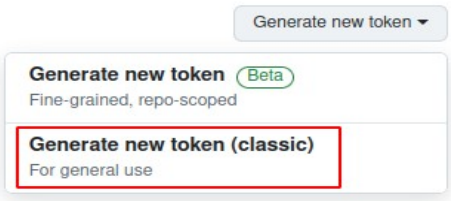
35. Scroll and locate Developer Settings



36. Click on Personal Access Tokens > Tokens (Classic)



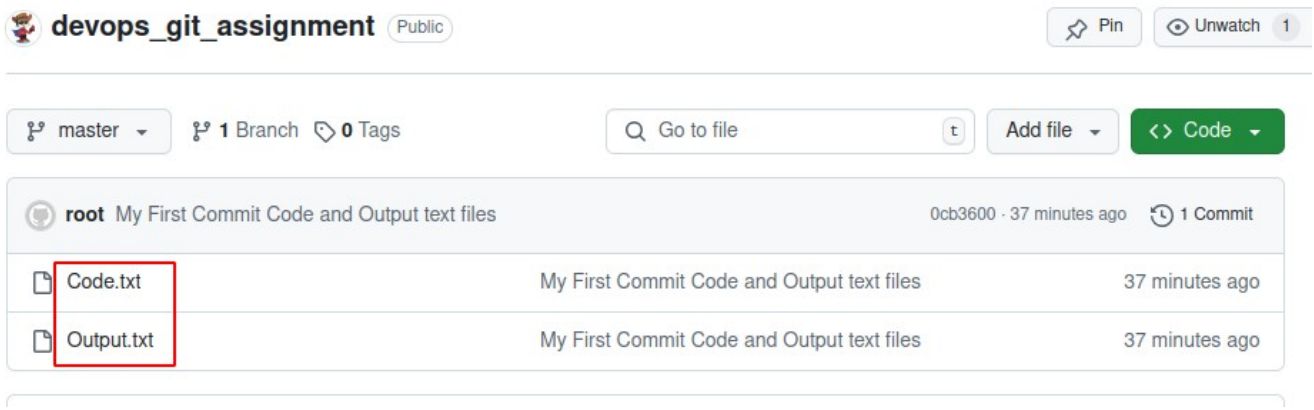
37. Click on Generate New Tokens



38. Give a name in the Note Field and set the expiration date and click on the access. Since it is a demo click on all the checkboxes and click on generate token. Copy the token in a safe place.
39. Copy the token and run the same commands and in the password field paste the token

```
ubuntu@ubuntu2004:~/devops$ sudo git push https://github.com/gitsvraravind/devops_git_assignment.git master
Username for 'https://github.com': gitsvraravind
Password for 'https://gitsvraravind@github.com':
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Delta compression using up to 2 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 251 bytes | 251.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/gitsvraravind/devops_git_assignment.git
 * [new branch]      master -> master
ubuntu@ubuntu2004:~/devops$
```

40. Navigate to the repo and you will find the text files



41. there is only one master branch and you can see which is the branch you are in. The asterix command will indicate in which branch you are in

```
ubuntu@ubuntu2004:~/devops$ sudo git branch
* master
ubuntu@ubuntu2004:~/devops$
```