INSTALLATION OF GIT IN LINUX(UBUNTU)


```
diwakar@diwakar-HP-Laptop-15-da0xxx:~$ sudo apt-get install git  -->THIS COMMAND IS FOR INSTALLTION OF GIT
[sudo] password for diwakar:
Sorry, try again.
[sudo] password for diwakar:
Reading package lists... Done
Building dependency tree
Reading state information... Done
git is already the newest version (1:2.25.1-1ubuntu3.2).
The following package was automatically installed and is no longer required:
  libfwupdplugin1
Use 'sudo apt autoremove' to remove it.
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
diwakar@diwakar-HP-Laptop-15-da0xxx:~$ git --version  --TO CHECK THE GIT VERSION INSTALLED IN OS
git version 2.25.1
```

- *NOW WE HAD SUCESSED TO INSTALL GIT IN OUR SYSTEM*
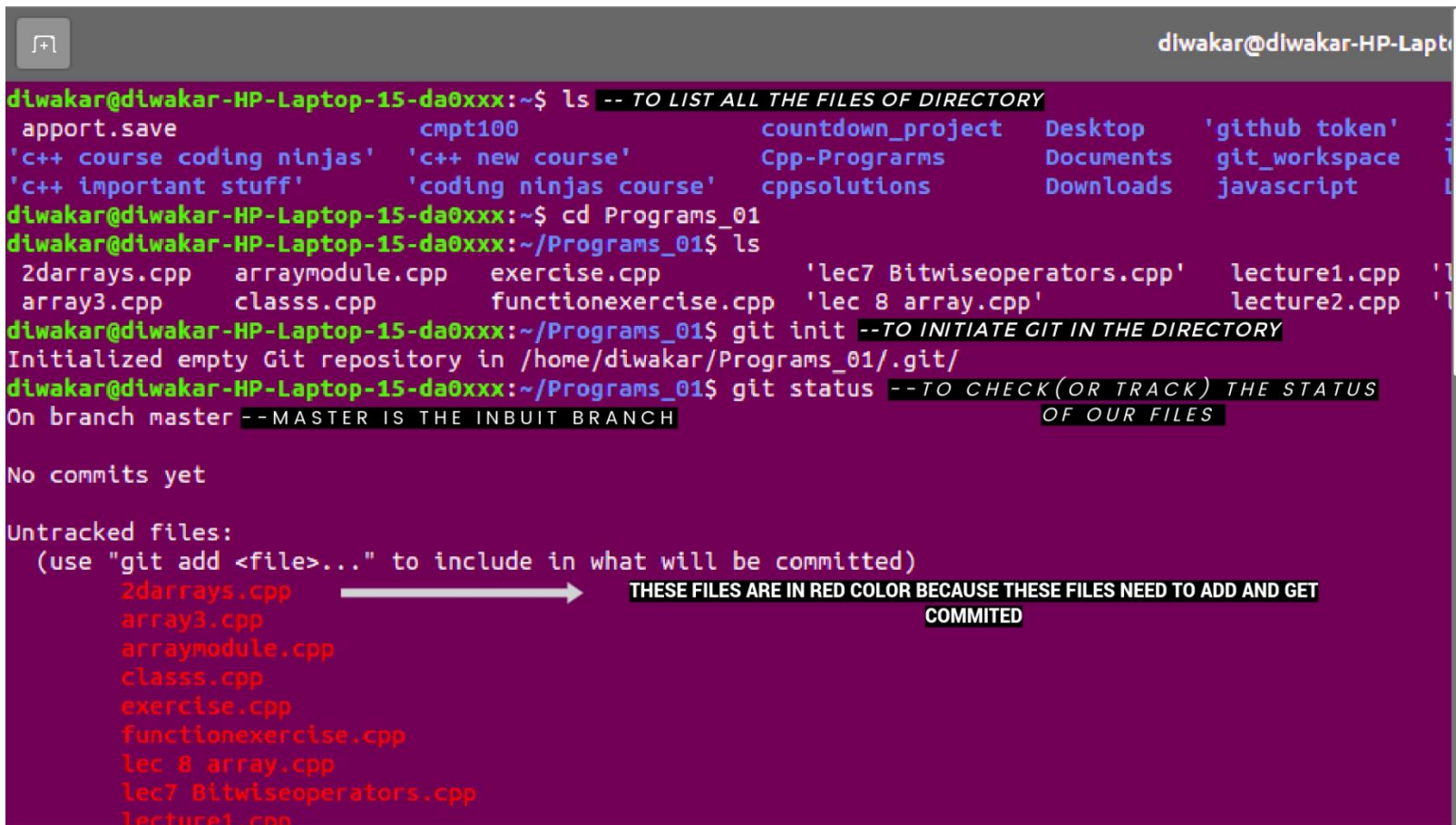- *NOW WE NEED TO ADD OUR EMAIL AND CREATE A USERNAME FOR OUR GIT---*

ADDING EMAIL AND USERNAME TO OUR GIT


```
diwakar@diwakar-HP-Laptop-15-da0xxx:~$ $ git config --global user.email "eparis@atlassian.com"  ---> TO SET THE EMAIL TO GIT
$: command not found
```

WE CAN LIST OUR GIT USERNAME AND EMAIL USING FOLLOWING
COMMANDS AND WE CAN ALSO EDIT THE DETAILS WHENEVR WE

WANT USSING THE FOLLOWING COMMANDS→

```
diwakar@diwakar-HP-Laptop-15-da0xxx:~$ git config --list -->TO GET THE LIST OF AUR GIT USERNAME AND EMAIL
user.name=diwakar4586
user.email=diwakar0470.be21@chitkara.edu.in
diwakar@diwakar-HP-Laptop-15-da0xxx:~$ git config --edit -->TO EDIT THE NAME OR EMAIL OF GIT
```

BASIC COMMANDS TO ADD FILE AND COMMIT THEM

```
diwakar@diwakar-HP-Laptop-15-da0xxx:~$ ls -- TO LIST ALL THE FILES OF DIRECTORY
 apport.save                    cmpt100                 countdown_project    Desktop      'github token'
'c++ course coding ninjas'    'c++ new course'          Cpp-Prograrms        Documents    git_workspace
'c++ important stuff'          'coding ninjas course'   cppsolutions         Downloads    javascript
diwakar@diwakar-HP-Laptop-15-da0xxx:~$ cd Programs_01
diwakar@diwakar-HP-Laptop-15-da0xxx:~/Programs_01$ ls
 2darrays.cpp    arraymodule.cpp    exercise.cpp           'lec7 Bitwiseoperators.cpp'    lecture1.cpp
 array3.cpp      classs.cpp         functionexercise.cpp  'lec 8 array.cpp'               lecture2.cpp
diwakar@diwakar-HP-Laptop-15-da0xxx:~/Programs_01$ git init --TO INITIATE GIT IN THE DIRECTORY
Initialized empty Git repository in /home/diwakar/Programs_01/.git/
diwakar@diwakar-HP-Laptop-15-da0xxx:~/Programs_01$ git status --TO CHECK(OR TRACK) THE STATUS
On branch master --MASTER IS THE INBUIT BRANCH                     OF OUR FILES

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        2darrays.cpp    ----------------->    THESE FILES ARE IN RED COLOR BECAUSE THESE FILES NEED TO ADD AND GET
        array3.cpp                                                    COMMITED
        arraymodule.cpp
        classs.cpp
        exercise.cpp
        functionexercise.cpp
        lec 8 array.cpp
        lec7 Bitwiseoperators.cpp
        lecture1.cpp
```

Figure 1.1

SO IN THE FIGURE 1.1→ We initialize a folder by adding git init

And then we added some files and as e can see those files having red color so it means they are not yet committed they jus added to track them so we need to add commit them.

Let see how commit is done in fig 1.2 given below--

```
Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   2darrays.cpp
        new file:   array3.cpp
        new file:   arraymodule.cpp
        new file:   classs.cpp
        new file:   exercise.cpp
        new file:   functionexercise.cpp
        new file:   lec 8 array.cpp
        new file:   lec7 Bitwiseoperators.cpp
        new file:   lecture1.cpp
        new file:   lecture2.cpp
        new file:   lecture3 pointer.cpp
        new file:   lecture4 loops.cpp
        new file:   lecture5 patterns.cpp
        new file:   lecture6 character pattern.cpp
        new file:   newexercises.cpp

diwakar@diwakar-HP-Laptop-15-da0xxx:~/Programs_01$ git commit -m "Initial commit"
[master (root-commit) 6806e6c] Initial commit
 15 files changed, 2180 insertions(+)
 create mode 100644 2darrays.cpp
 create mode 100644 array3.cpp
 create mode 100644 arraymodule.cpp           THIS COMMAND IS FOR COMMTING OUR
 create mode 100644 classs.cpp                    ADDED FILE IN THE GIT
 create mode 100644 exercise.cpp
 create mode 100644 functionexercise.cpp
 create mode 100644 lec 8 array.cpp
 create mode 100644 lec7 Bitwiseoperators.cpp
 create mode 100644 lecture1.cpp
 create mode 100644 lecture2.cpp
 create mode 100644 lecture3 pointer.cpp
 create mode 100644 lecture4 loops.cpp
 create mode 100644 lecture5 patterns.cpp
 create mode 100644 lecture6 character pattern.cpp
 create mode 100644 newexercises.cpp
```

Figure 1.2 –

COMMITING A FILE IN GIT I

As we already commited our files in the git .Now let see how can we push our git in github

Cloud sever.

```
create mode 100644 js_drumpadproject/tom.wav
diwakar@diwakar-HP-Laptop-15-da0xxx:~/Content_01$ git branch -M firstbranch      --THIS COMMAND IS FOR CREATE A NEW BRANCH
diwakar@diwakar-HP-Laptop-15-da0xxx:~/Content_01$ git remote add origin https://github.com/Group08-Chitkara-University/2110990470.git
diwakar@diwakar-HP-Laptop-15-da0xxx:~/Content_01$ git remote -v
origin  https://github.com/Group08-Chitkara-University/2110990470.git (fetch)
origin  https://github.com/Group08-Chitkara-University/2110990470.git (push)           TO ADD THE PATH OF CLOUD WHERE THE GIT
diwakar@diwakar-HP-Laptop-15-da0xxx:~/Content_01$ git push -u origin firstbranch            WILL PUSHED LATER
Username for 'https://github.com': diwakar4586
Password for 'https://diwakar4586@github.com':
Enumerating objects: 35, done.                       THSI COMMAND IS FOR PUSHING OUR FILE TO GITHUB CLOUD
Counting objects: 100% (35/35), done.                                    SERVER
Delta compression using up to 4 threads
Compressing objects: 100% (35/35), done.
Writing objects: 100% (35/35), 2.47 MiB | 780.00 KiB/s, done.
Total 35 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), done.
To https://github.com/Group08-Chitkara-University/2110990470.git
 * [new branch]      firstbranch -> firstbranch
Branch 'firstbranch' set up to track remote branch 'firstbranch' from 'origin'.
diwakar@diwakar-HP-Laptop-15-da0xxx:~/Content_01$ git status
On branch firstbranch
Your branch is up to date with 'origin/firstbranch'.

nothing to commit, working tree clean
diwakar@diwakar-HP-Laptop-15-da0xxx:~/Content_01$ git log
commit e9ceb08cffcf3a50875b50d0b8bf9fb21f359bc2 (HEAD -> firstbranch, origin/firstbranch)
Author: diwakar4586 <diwakar0470.be21@chitkara.edu.in>
Date:   Sun Apr 10 14:51:47 2022 +0530

    first commit
diwakar@diwakar-HP-Laptop-15-da0xxx:~/Content_01$ git branch -r ---> TO CHECK THE BRANCH STATUS
  origin/firstbranch
diwakar@diwakar-HP-Laptop-15-da0xxx:~/Content_01$
```