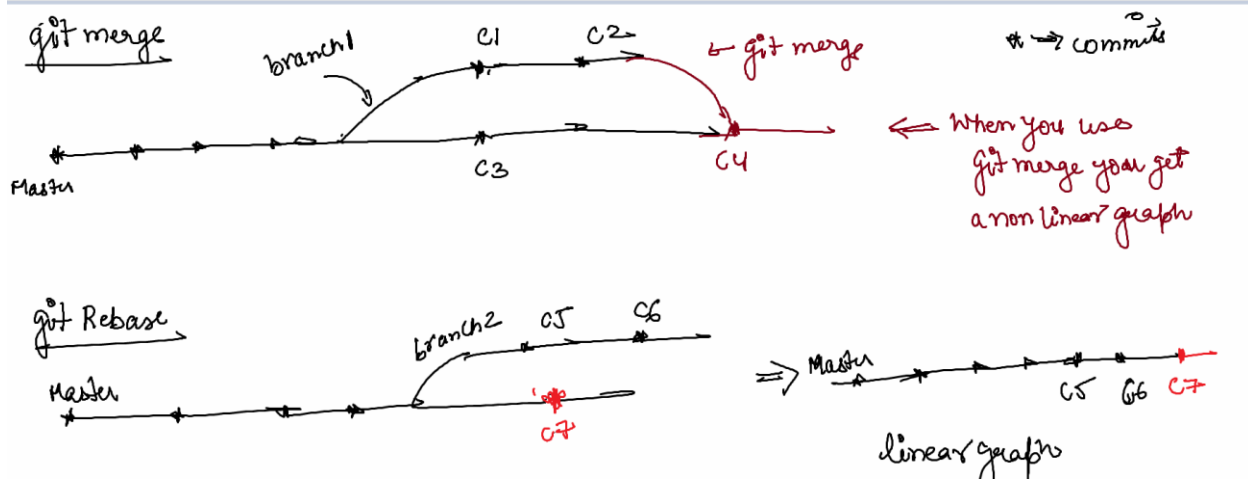# GIT Lab: use of git merge command

##
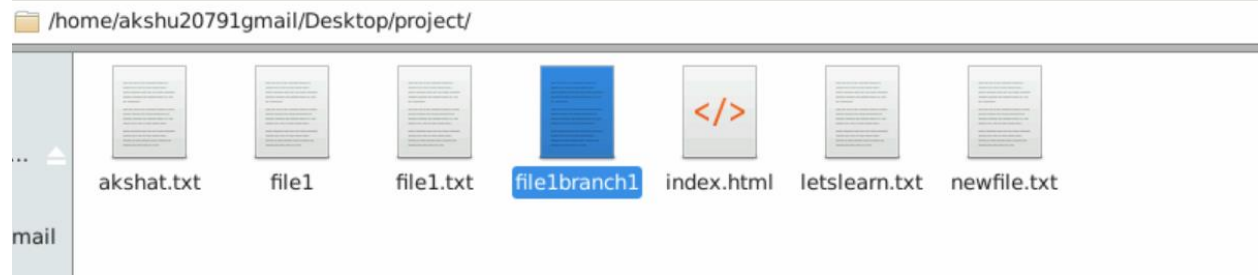
git branch

(ensure that you are on the branch1 only)

touch file1branch1

git add .

git commit -m"c1"

```
akshu20791gmail@ip-172-31-83-7:~/Desktop/project$ touch file1branch1
akshu20791gmail@ip-172-31-83-7:~/Desktop/project$ git add .
akshu20791gmail@ip-172-31-83-7:~/Desktop/project$ git commit -m "c1"
[branch1 0fa0ab9] c1
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 file1branch1
akshu20791gmail@ip-172-31-83-7:~/Desktop/project$ 
```

So , if you go to the folder where you are working you will see,

/home/akshu20791gmail/Desktop/project/

akshat.txt   file1   file1.txt   file1branch1   index.html   letslearn.txt   newfile.txt

mail

Now lets checkout to master branch and see if this file1branch1 Is present or not?

It will not be there because since I have commited the file in branch1 it belongs to branch1 not the master …and branches are isolated with each other

git checkout master

ls

(you will see that file1branch1 is not present)

git checkout branch1

ls

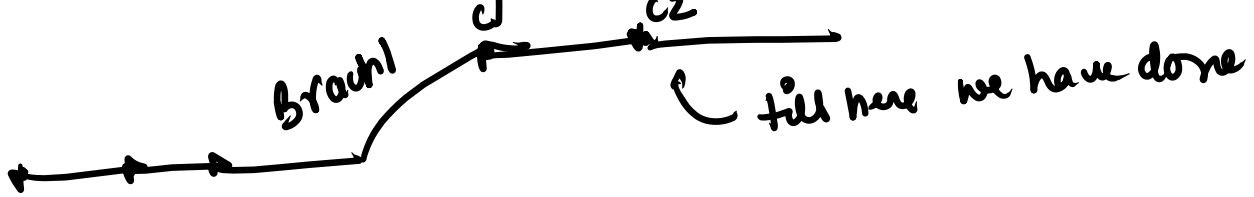(you will again see file1branch1 as we are in branch1)

Lets now create c2 commit as well

touch file2branch1

git add .

git commit -m"c2"


```
File   Edit   View   Search   Terminal   Help
akshu20791gmail@ip-172-31-83-7:~/Desktop/project$ git branch
* branch1
  master
akshu20791gmail@ip-172-31-83-7:~/Desktop/project$ touch file2branch1
akshu20791gmail@ip-172-31-83-7:~/Desktop/project$ ls
akshat.txt  file1  file1.txt  file1branch1  file2branch1  index.html  letslearn.txt  newfile.txt
akshu20791gmail@ip-172-31-83-7:~/Desktop/project$ git add .
akshu20791gmail@ip-172-31-83-7:~/Desktop/project$ git commit -m"c2"
[branch1 392de7c] c2
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 file2branch1
akshu20791gmail@ip-172-31-83-7:~/Desktop/project$
```

Now we will move to master branch and create a commit c3 in master

git checkout master

git branch

```
File   Edit   View   Search   Terminal   Help
akshu20791gmail@ip-172-31-83-7:~/Desktop/project$ git checkout master
Switched to branch 'master'
Your branch is up to date with 'origin/master'.
akshu20791gmail@ip-172-31-83-7:~/Desktop/project$ git branch
  branch1
* master
```
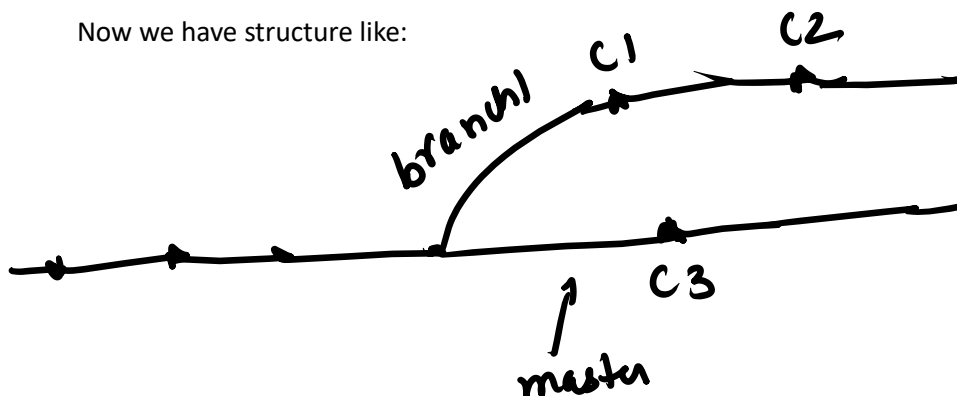
touch file1master

git add .

git commit -m"c3"

```
akshu20791gmail@ip-172-31-83-7:~/Desktop/project$ touch file1master
akshu20791gmail@ip-172-31-83-7:~/Desktop/project$ git add .
fatal: pathspec '.' did not match any files
akshu20791gmail@ip-172-31-83-7:~/Desktop/project$ git add .
akshu20791gmail@ip-172-31-83-7:~/Desktop/project$ git commit -m"c3"
[master eeb7137] c3
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 file1master
akshu20791gmail@ip-172-31-83-7:~/Desktop/project$
```

Now we have structure like:

Now we need to merge the master and the branch1 to create a c4 commit …

(we should be in the master to run the above command)
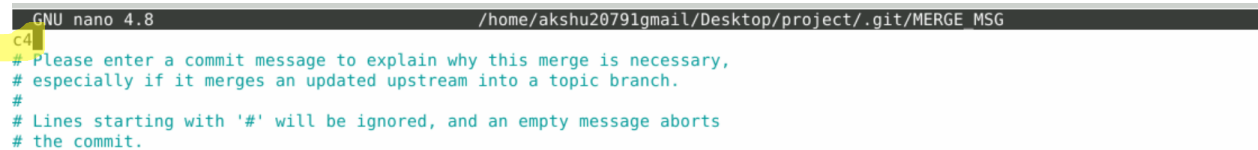
A NANO TERMINAL WILL OPEN IN FRONT OF YOU:

```
  GNU nano 4.8                        /home/akshu20791gmail/Desktop/project/.git/MERGE_MSG
Merge branch 'branch1'
# Please enter a commit message to explain why this merge is necessary,
# especially if it merges an updated upstream into a topic branch.
#
# Lines starting with '#' will be ignored, and an empty message aborts
# the commit.




                                      [ Read 6 lines ]
^G Get Help    ^O Write Out    ^W Where Is    ^K Cut Text    ^J Justify    ^C Cur Pos    M-U Undo    M-A Mark Text  M-] To Bracket
```

Delete the existing content and add c4 here

```
  GNU nano 4.8                        /home/akshu20791gmail/Desktop/project/.git/MERGE_MSG
c4
# Please enter a commit message to explain why this merge is necessary,
# especially if it merges an updated upstream into a topic branch.
#
# Lines starting with '#' will be ignored, and an empty message aborts
# the commit.
```

Press ctrl O and then press ctrl X to come out of the nano file

TO SEE THE LOGS IN GRAPH FORMAT :

<mark>git log --oneline --graph</mark>

```
File   Edit   View   Search   Terminal   Help
akshu20791gmail@ip-172-31-83-7:~/Desktop/project$ git log --oneline --graph
*    c09b882 (HEAD -> master) c4
|\
| *  392de7c (branch1) c2
| *  0fa0ab9 c1
* |  eeb7137 c3
|/
*  621949d (origin/master) newcommit
*  a29569a Create newfile.txt
*  be314c6 second commit
*  b686c43 first commit
```