Step 1: Made directory representing diff servers accessing to different git branches



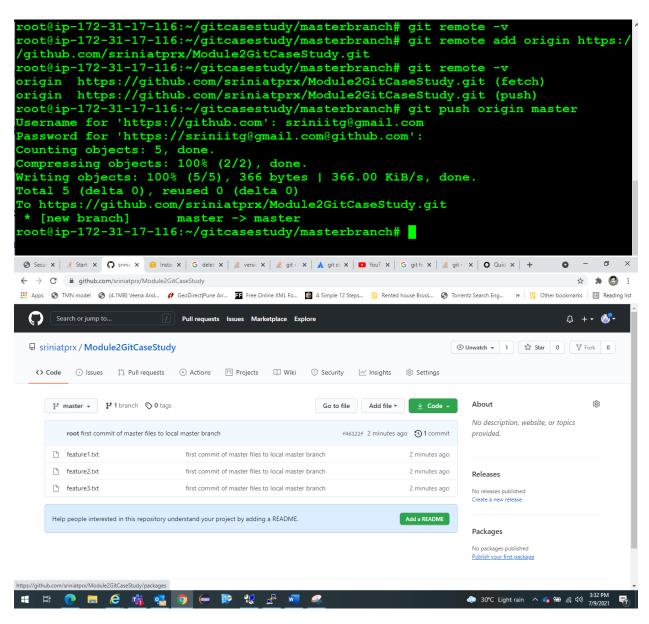
Setting up the master branch ( Pre-PROD Branch):

Creating sample files in master branch and pushing to GitHub Master branch

```
ITTbranch
UATbranch
devbranch
feature1devbranch
feature2devbranch
hotfixbranch
masterbranch
feature1.txt
feature2.txt
feature3.txt
```

Staging, committing and pushing the master files from local master branch to github master branch and this will be now baselined as my pre-prod env.

```
Initialized empty Git repository in /home/ubuntu/gitcasestudy/masterbranch/.git/
root@ip-172-31-17-116:~/gitcasestudy/masterbranch# git add .
root@ip-172-31-17-116:~/gitcasestudy/masterbranch# git commit -m "first commit o
master files to local master branch"
master (root-commit) f46122f] first commit of master files to local master bran
ch
Committer: root <root@ip-172-31-17-116.us-east-2.compute.internal>
Your name and email address were configured automatically based
on your username and hostname. Please check that they are accurate.
Ou can suppress this message by setting them explicitly. Run the
collowing 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
3 files changed, 3 insertions(+)
create mode 100644 feature1.txt
create mode 100644 feature2.txt
create mode 100644 feature3.txt
root@ip-172-31-17-116:~/gitcasestudy/masterbranch#
```

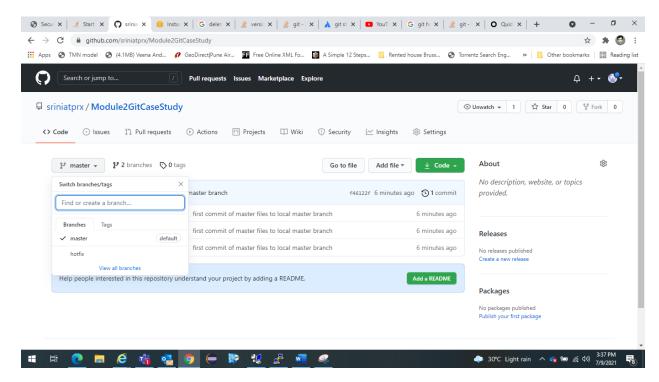


Checking out the code from master to hotfix branch

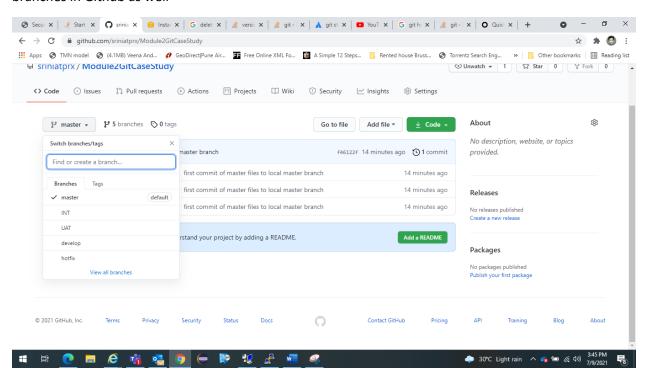
```
root@ip-172-31-17-116:~/gitcasestudy/hotfixbranch# ls
root@ip-172-31-17-116:~/gitcasestudy/hotfixbranch# git pull origin master
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 5 (delta 0), reused 5 (delta 0), pack-reused 0
Unpacking objects: 100% (5/5), done.
From https://github.com/sriniatprx/Module2GitCaseStudy
* branch
                                -> FETCH HEAD
                    master
* [new branch]
                    master
                               -> origin/master
root@ip-172-31-17-116:~/gitcasestudy/hotfixbranch# git branch
master
root@ip-172-31-17-116:~/qitcasestudy/hotfixbranch# git branch hotfix
root@ip-172-31-17-116:~/gitcasestudy/hotfixbranch# git checkout hotfix
Switched to branch 'hotfix'
root@ip-172-31-17-116:~/gitcasestudy/hotfixbranch# ls
feature1.txt feature2.txt feature3.txt
root@ip-172-31-17-116:~/gitcasestudy/hotfixbranch#
```

And pushing the hotfix branch back to github by creating new hot fix branch in remote

```
root@ip-172-31-17-116:~/gitcasestudy/hotfixbranch# git branch
master
root@ip-172-31-17-116:~/gitcasestudy/hotfixbranch# git branch hotfix
root@ip-172-31-17-116:~/gitcasestudy/hotfixbranch# git checkout hotfix
Switched to branch 'hotfix'
root@ip-172-31-17-116:~/gitcasestudy/hotfixbranch# ls
feature1.txt feature2.txt feature3.txt
root@ip-172-31-17-116:~/gitcasestudy/hotfixbranch# git push origin hotfix
Username for 'https://github.com': sriniitg@gmail.com
Password for 'https://sriniitg@gmail.com@github.com':
Total 0 (delta 0), reused 0 (delta 0)
remote:
remote: Create a pull request for 'hotfix' on GitHub by visiting:
remote:
            https://github.com/sriniatprx/Module2GitCaseStudy/pull/new/hotfix
remote:
To https://github.com/sriniatprx/Module2GitCaseStudy.git
* [new branch]
                    hotfix -> hotfix
 oot@ip-172-31-17-116:~/gitcasestudy/hotfixbranch#
```



Similarly pulling the code base from master to all branches ( Dev, INT and UAT) and create the new branches in Github as well



Now that codebase of Master, Hot fix, Develop, INT and UAT all are same

Now creating 2 more branches for feature 1 and feature 2 and pulling the code from develop branch

```
root@ip-172-31-17-116:~/gitcasestudy/featureldevbranch# git remote add origin https://github.com/srinia
tprx/Module2GitCaseStudy.git
root@ip-172-31-17-116:~/gitcasestudy/featureldevbranch# git pull origin develop
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Total 5 (delta 0), reused 5 (delta 0), pack-reused 0
Unpacking objects: 100% (5/5), done.
From https://github.com/sriniatprx/Module2GitCaseStudy

* branch develop -> FETCH_HEAD

* [new branch] develop -> origin/develop
root@ip-172-31-17-116:~/gitcasestudy/feature2devbranch# git init
Initialized empty Git repository in /home/ubuntu/gitcasestudy/feature2devbranch/.git/
root@ip-172-31-17-116:~/gitcasestudy/feature2devbranch# git remote add origin https://github.com/sriniatprx/Module2GitCaseStudy.git
root@ip-172-31-17-116:~/gitcasestudy/feature2devbranch# git pull origin develop
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Counting objects: 100% (5/5), done.
From https://github.com/sriniatprx/Module2GitCaseStudy

* branch develop -> FETCH_HEAD

* [new branch] develop -> origin/develop
root@ip-172-31-17-116:~/gitcasestudy/feature2devbranch# 

* [new branch] develop -> FETCH_HEAD

* [new branch] develop -> origin/develop
root@ip-172-31-17-116:~/gitcasestudy/feature2devbranch# 

* [new branch] develop -> origin/develop
root@ip-172-31-17-116:~/gitcasestudy/feature2devbranch# 

* [new branch] develop -> origin/develop
root@ip-172-31-17-116:~/gitcasestudy/feature2devbranch# 

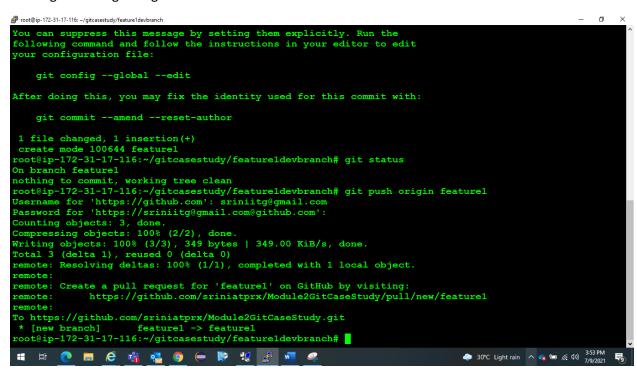
* [new branch] develop -> origin/develop
```

Now making changes in feature 1 file in feature1 branch and feature 2 file in feature2 branch and pushing to feature branches in github

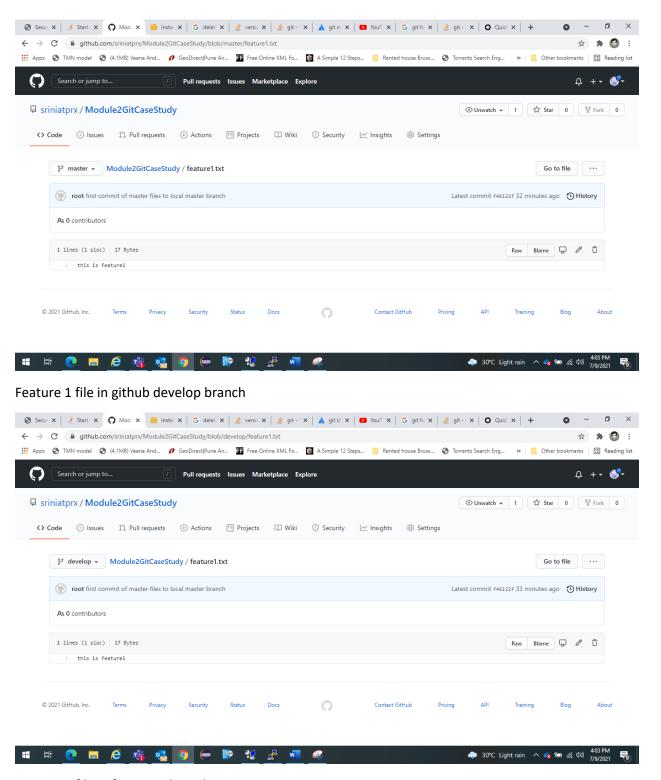
```
oot@ip-172-31-17-116:~/gitcasestudy/feature2devbranch# cd
coot@ip-172-31-17-116:~/gitcasestudy# cd featureldevbranch/
coot@ip-172-31-17-116:~/gitcasestudy/featureldevbranch# ls
feature1.txt feature2.txt feature3.txt
root@ip-172-31-17-116:~/gitcasestudy/featureldevbranch# nano featurel root@ip-172-31-17-116:~/gitcasestudy/featureldevbranch# nano featurel root@ip-172-31-17-116:~/gitcasestudy/featureldevbranch# cat featurel
hi this is the new code change for feature1
 coot@ip-172-31-17-116:~/gitcasestudy/featureldevbranch# git status
 n branch feature1
Untracked files:
  (use "git add <file>..." to include in what will be committed)
nothing added to commit but untracked files present (use "git add" to track)
 coot@ip-172-31-17-116:~/gitcasestudy/featureldevbranch#
Proot@ip-172-31-17-116: ~/gitcasestudy/feature1devbranch
root@ip-172-31-17-116:~/gitcasestudy/featureldevbranch# git add .
root@ip-172-31-17-116:~/gitcasestudy/featureldevbranch# git commit -m "commiting the featurel code chan
 ge to feature 1 local branch'
ge to leader 1 recar branch [[feature1 grant]] [[feature1 977b228] committing the feature1 code change to feature 1 local branch Committer: root <root@ip-172-31-17-116.us-east-2.compute.internal>
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
 1 file changed, 1 insertion(+)
 create mode 100644 feature1
root@ip-172-31-17-116:~/gitcasestudy/feature1devbranch#
                                                                                                     ◆ 30°C Light rain Show hidden icons 7/9/2021
 # # 0 # 6 # 3 9 = $ 12 8
```

```
root@ip-172-31-17-116: ~/gitcasestudv/feature1devbranch
 {\tt root@ip-172-31-17-116:} {\tt ~/gitcasestudy/featureldevbranch\# git add .} \\ {\tt root@ip-172-31-17-116:} {\tt ~/gitcasestudy/featureldevbranch\# git commit -m "committing the featurel code characteristics"} \\ {\tt root@ip-172-31-17-116:} {\tt ~/gitcasestudy/featureldevbranch\# git commit -m "committing the featurel code characteristics"} \\ {\tt root@ip-172-31-17-116:} \\ {\tt ~/gitcasestudy/featureldevbranch\# git committed in "committing the featurel code characteristics"} \\ {\tt ~/gitcasestudy/featureldevbranch\# git committed in "committing the featurel code characteristics"} \\ {\tt ~/gitcasestudy/featureldevbranch\# git committed in "committed in "commi
    ge to feature 1 local branch'
   [feature1 977b228] committing the feature1 code change to feature 1 local branch Committer: root <root@ip-172-31-17-116.us-east-2.compute.internal>
    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
      1 file changed, 1 insertion(+)
create mode 100644 feature1
   root@ip-172-31-17-116:~/gitcasestudy/featureldevbranch# git status
  On branch feature1
  nothing to commit, working tree clean
    root@ip-172-31-17-116:~/gitcasestudy/featureldevbranch#
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ◆ 30°C Light rain ヘ 🕵 🔚 🦟 ⑴ 3:53 PM 7/9/2021
    # # 0 | Ø 6 | Ø 5 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø
```

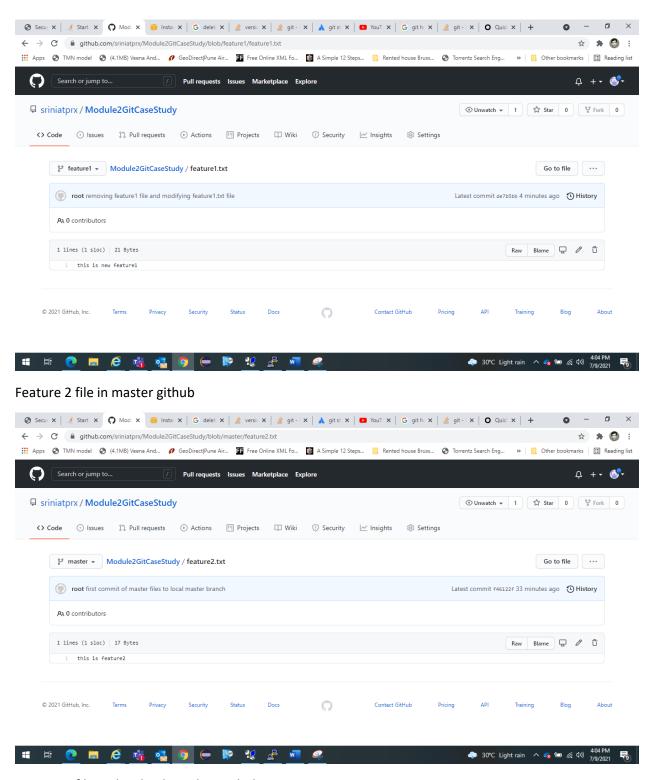
## Pushing the changes to github to feature1 branch



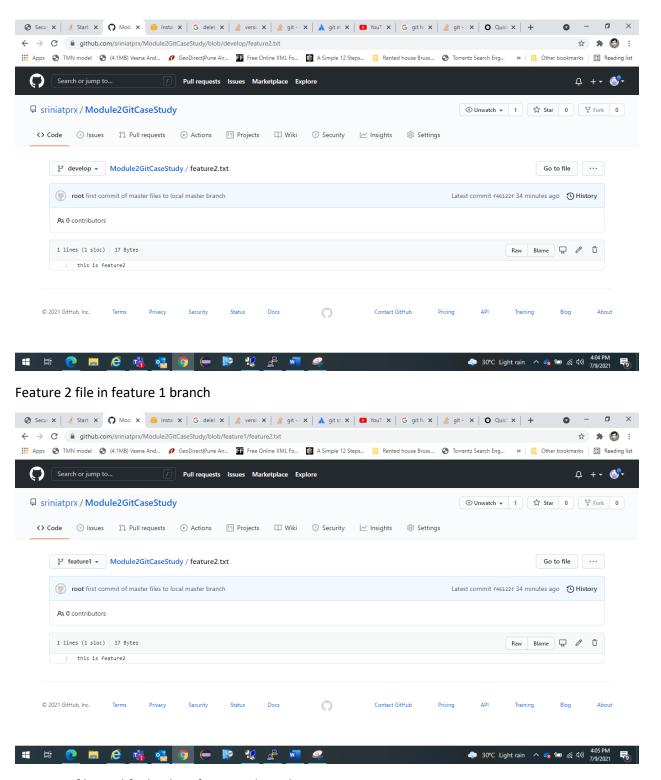
Feature 1 file in github master



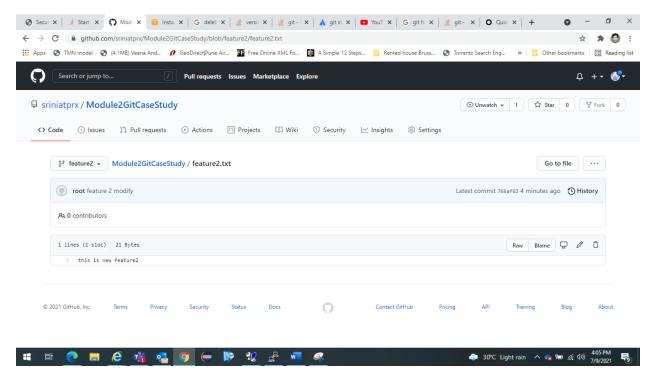
Feature 1 file in feature 1 branch



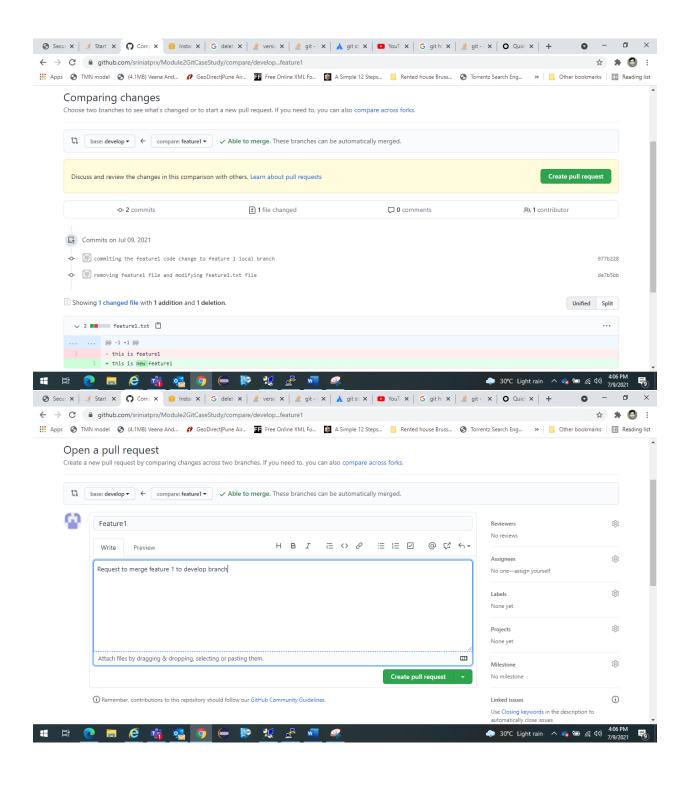
Feature 2 file in develop branch in github

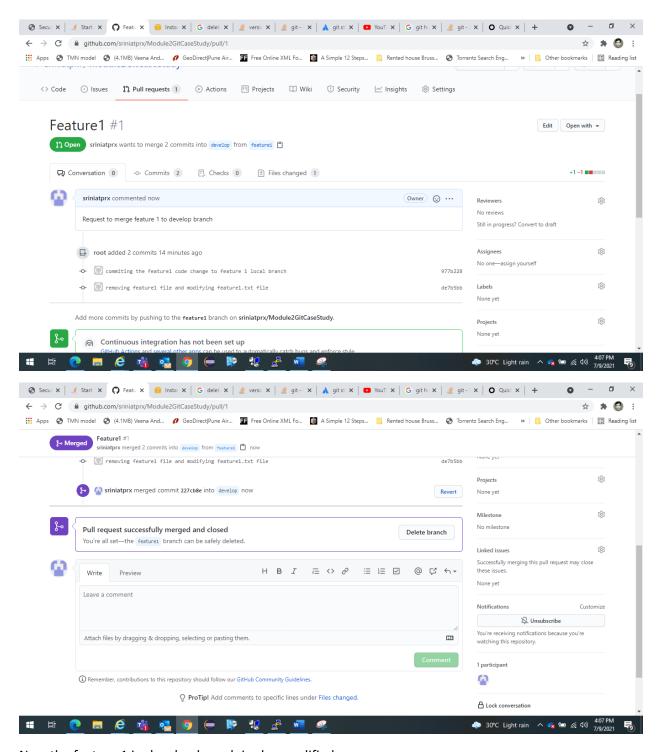


Feature 2 file modified only in feature 2 branch

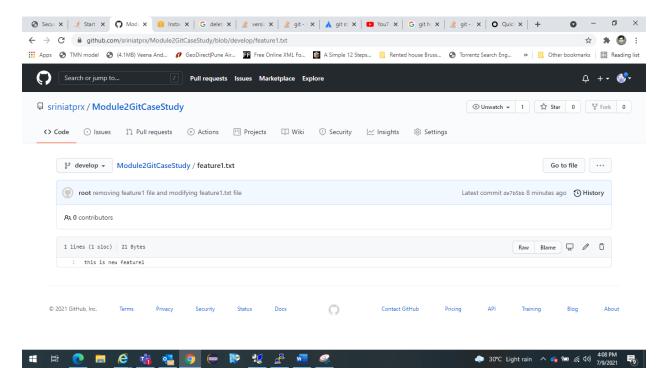


Now merging the feature 1 and feature 2 to develop branch





Now the feature 1 in develop branch is also modified



From develop we can now merge to INT branch then after INT testing can merge the latest code base to UAT branch and then after final testing and defect fixes we can move to master which is our pre prod. PROD deployment happens with the final code base from master

Similarly we can do for feature 2 file from feature2 branch to develop branch

For hot fixes which can be done in hot fix branch and similary we can directly merge to Master branch which is our pre prod branch and then to PROD.

Not illustrating here these processes as the steps are similar.