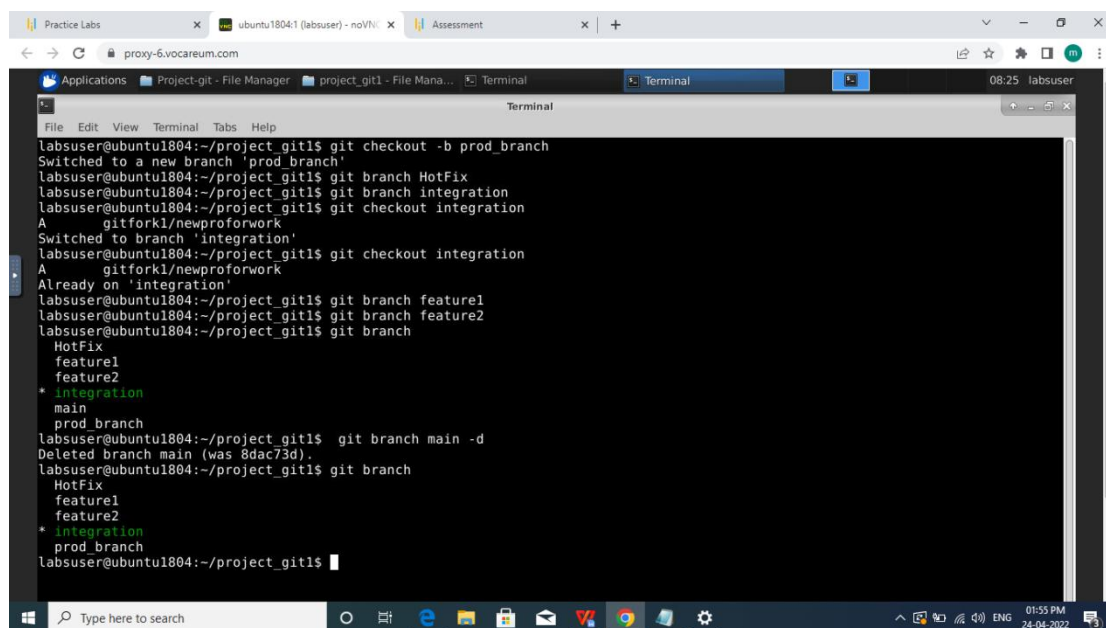


## Git and GitHub Training

# Branching Development Model Project 1

### Steps to perform:

1. Start with the Production branch (master branch), and then create a HotFix and Integration branch
2. Subsequently, create Feature 1 and 2 branches that integrate to the Integration branch as shown in the below figure



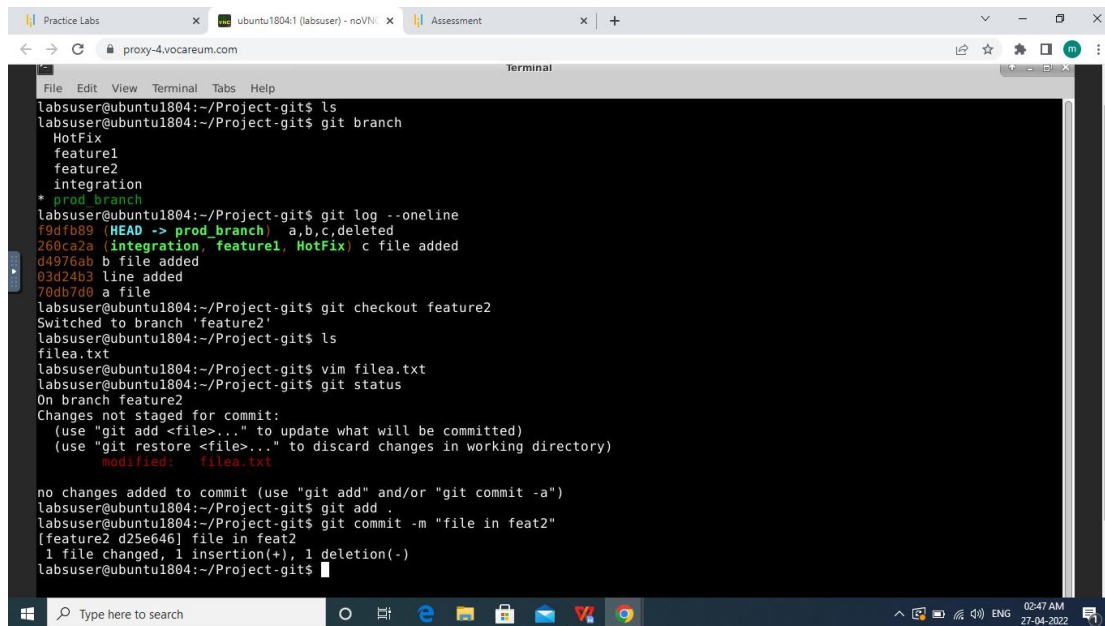
```
labsuser@ubuntu1804:~/project_git1$ git checkout -b prod_branch
Switched to a new branch 'prod_branch'
labsuser@ubuntu1804:~/project_git1$ git branch HotFix
labsuser@ubuntu1804:~/project_git1$ git branch integration
labsuser@ubuntu1804:~/project_git1$ git checkout integration
A gitfork1/newproforwork
Switched to branch 'integration'
labsuser@ubuntu1804:~/project_git1$ git checkout integration
A gitfork1/newproforwork
Already on 'integration'
labsuser@ubuntu1804:~/project_git1$ git branch feature1
labsuser@ubuntu1804:~/project_git1$ git branch feature2
labsuser@ubuntu1804:~/project_git1$ git branch
  HotFix
  feature1
  feature2
* integration
  main
  prod_branch
labsuser@ubuntu1804:~/project_git1$ git branch main -d
Deleted branch main (was 8dac73d).
labsuser@ubuntu1804:~/project_git1$ git branch
  HotFix
  feature1
  feature2
* integration
  prod_branch
labsuser@ubuntu1804:~/project_git1$
```

The screenshot shows a terminal window with the following commands and output:

- `git checkout -b prod_branch`: Switched to a new branch 'prod\_branch'
- `git branch HotFix`: Created branch 'HotFix'
- `git branch integration`: Created branch 'integration'
- `git checkout integration`: Switched to branch 'integration'
- `git checkout integration`: Switched to branch 'integration' (repeated)
- `git branch feature1`: Created branch 'feature1'
- `git branch feature2`: Created branch 'feature2'
- `git branch`: Shows the current state of branches: 'HotFix', 'feature1', 'feature2', 'integration' (current), 'main', and 'prod\_branch'.
- `git branch main -d`: Deleted branch 'main' (was 8dac73d).
- `git branch`: Shows the current state of branches: 'HotFix', 'feature1', 'feature2', 'integration' (current), and 'prod\_branch'.

Experiments on this branches so some commit id's are created

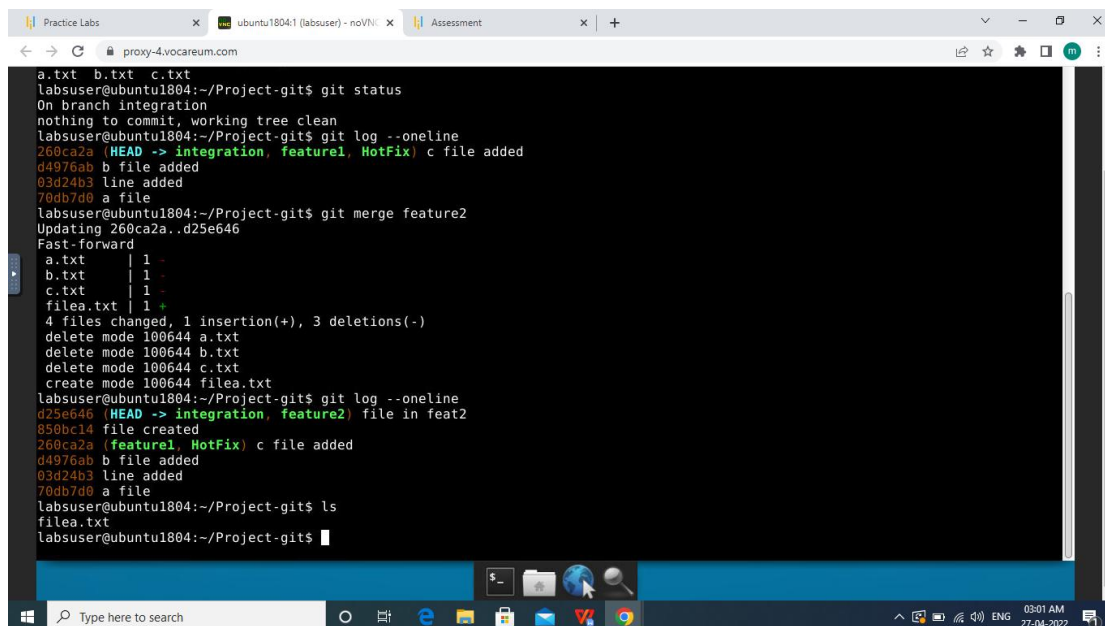




```
labsuser@ubuntu1804:~/Project-git$ ls
HotFix
feature1
feature2
integration
* prod_branch
labsuser@ubuntu1804:~/Project-git$ git log --oneline
f9dfb89 (HEAD -> prod_branch) a,b,c,deleted
260ca2a (integration, feature1, HotFix) c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-git$ git checkout feature2
Switched to branch 'feature2'
labsuser@ubuntu1804:~/Project-git$ ls
filea.txt
labsuser@ubuntu1804:~/Project-git$ vim filea.txt
labsuser@ubuntu1804:~/Project-git$ git status
On branch feature2
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   filea.txt

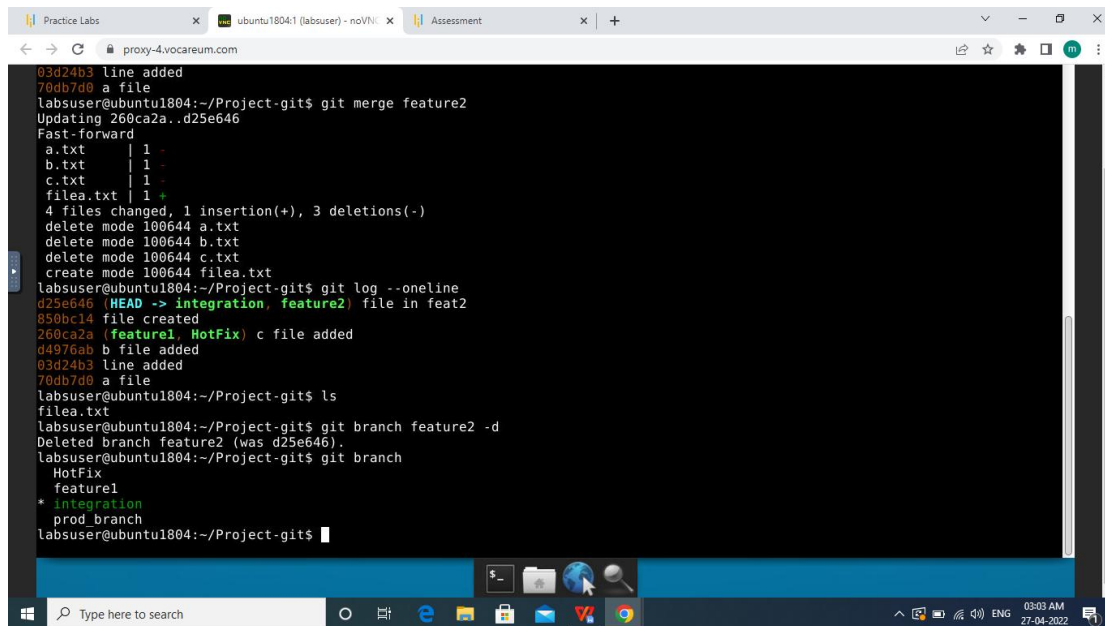
no changes added to commit (use "git add" and/or "git commit -a")
labsuser@ubuntu1804:~/Project-git$ git add .
labsuser@ubuntu1804:~/Project-git$ git commit -m "file in feat2"
[feature2 d25e646] file in feat2
1 file changed, 1 insertion(+), 1 deletion(-)
labsuser@ubuntu1804:~/Project-git$
```

### 3.3 merge it into the Integration branch



```
a.txt b.txt c.txt
labsuser@ubuntu1804:~/Project-git$ git status
On branch integration
nothing to commit, working tree clean
labsuser@ubuntu1804:~/Project-git$ git log --oneline
260ca2a (HEAD -> integration, feature1, HotFix) c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-git$ git merge feature2
Updating 260ca2a..d25e646
Fast-forward
 a.txt | 1 -
 b.txt | 1 -
 c.txt | 1 -
 filea.txt | 1 +
4 files changed, 1 insertion(+), 3 deletions(-)
delete mode 100644 a.txt
delete mode 100644 b.txt
delete mode 100644 c.txt
create mode 100644 filea.txt
labsuser@ubuntu1804:~/Project-git$ git log --oneline
d25e646 (HEAD -> integration, feature2) file in feat2
850bc14 file created
260ca2a (feature1, HotFix) c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-git$ ls
filea.txt
labsuser@ubuntu1804:~/Project-git$
```

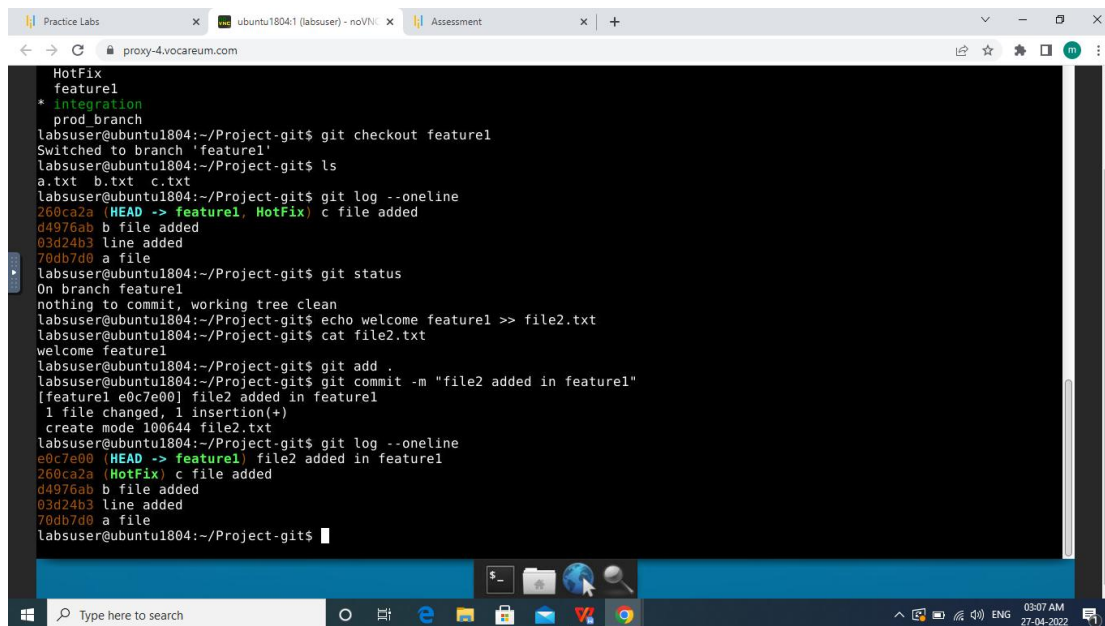
### 3.4 Delete this branch once merging is complete



```
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-git$ git merge feature2
Updating 260ca2a..d25e646
Fast-forward
 a.txt | 1 -
 b.txt | 1 -
 c.txt | 1 -
 filea.txt | 1 +
 4 files changed, 1 insertion(+), 3 deletions(-)
 delete mode 100644 a.txt
 delete mode 100644 b.txt
 delete mode 100644 c.txt
 create mode 100644 filea.txt
labsuser@ubuntu1804:~/Project-git$ git log --oneline
d25e646 (HEAD -> integration, feature2) file in feat2
850bc14 file created
260ca2a (feature1, HotFix) c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-git$ ls
filea.txt
labsuser@ubuntu1804:~/Project-git$ git branch feature2 -d
Deleted branch feature2 (was d25e646).
labsuser@ubuntu1804:~/Project-git$ git branch
  HotFix
  feature1
* integration
  prod_branch
labsuser@ubuntu1804:~/Project-git$
```

## 4 Commit some changes in the Feature 1 branch and rebase it to the Integration branch

### 4.1 edit the file then commit the changes in feature1



```
HotFix
feature1
* integration
  prod_branch
labsuser@ubuntu1804:~/Project-git$ git checkout feature1
Switched to branch 'feature1'
labsuser@ubuntu1804:~/Project-git$ ls
a.txt b.txt c.txt
labsuser@ubuntu1804:~/Project-git$ git log --oneline
260ca2a (HEAD -> feature1, HotFix) c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-git$ git status
On branch feature1
nothing to commit, working tree clean
labsuser@ubuntu1804:~/Project-git$ echo welcome feature1 >> file2.txt
labsuser@ubuntu1804:~/Project-git$ cat file2.txt
welcome feature1
labsuser@ubuntu1804:~/Project-git$ git add .
labsuser@ubuntu1804:~/Project-git$ git commit -m "file2 added in feature1"
[file1 e0c7e00] file2 added in feature1
 1 file changed, 1 insertion(+)
 create mode 100644 file2.txt
labsuser@ubuntu1804:~/Project-git$ git log --oneline
e0c7e00 (HEAD -> feature1) file2 added in feature1
260ca2a (HotFix) c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-git$
```

### 4.2 rebase it to the Integration branch

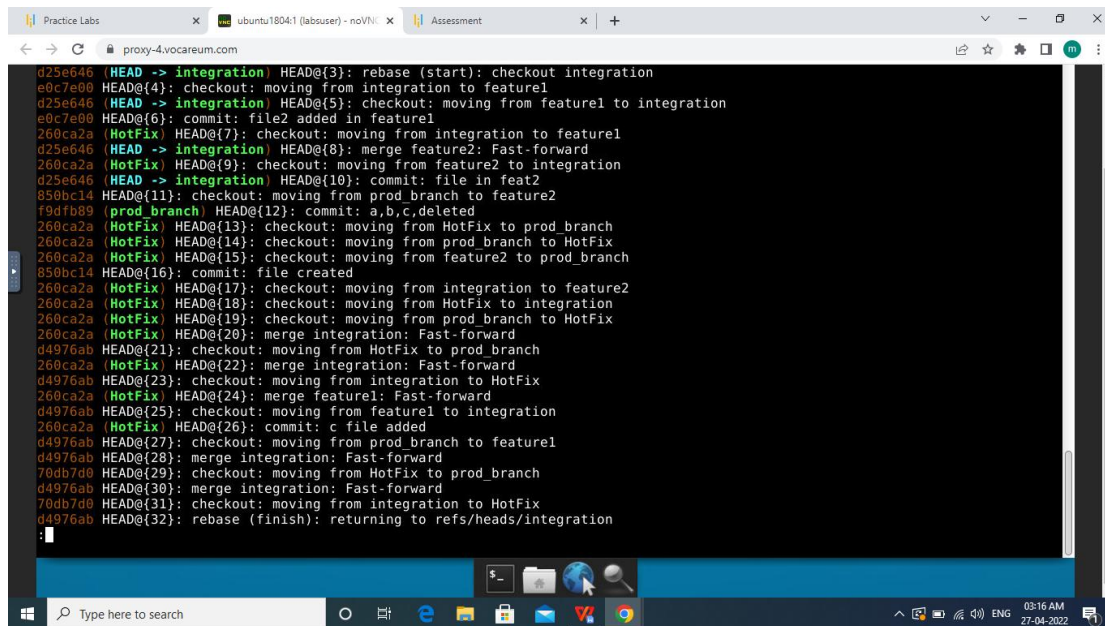
```
Practice Labs | ubuntu1804:1 (labsuser) - noVNC | Assessment
proxy-4.vocareum.com

labsuser@ubuntu1804:~/Project-git$ ls
filea.txt
labsuser@ubuntu1804:~/Project-git$ git log --oneline
d25e646 (HEAD -> integration) file in feat2
850bc14 file created
260ca2a (HotFix) c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-git$ git checkout feature1
Switched to branch 'feature1'
labsuser@ubuntu1804:~/Project-git$ git log --oneline
e0c7e00 (HEAD -> feature1) file2 added in feature1
260ca2a (HotFix) c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-git$ git rebase integration
Successfully rebased and updated refs/heads/feature1.
labsuser@ubuntu1804:~/Project-git$ git checkout integration
Switched to branch 'integration'
labsuser@ubuntu1804:~/Project-git$ ls
filea.txt
labsuser@ubuntu1804:~/Project-git$ git log --oneline
d25e646 (HEAD -> integration) file in feat2
850bc14 file created
260ca2a (HotFix) c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-git$
```

```
Practice Labs | ubuntu1804:1 (labsuser) - noVNC | Assessment
proxy-4.vocareum.com

Applications | Project-git - File Manager | Terminal
Terminal
File Edit View Terminal Tabs Help

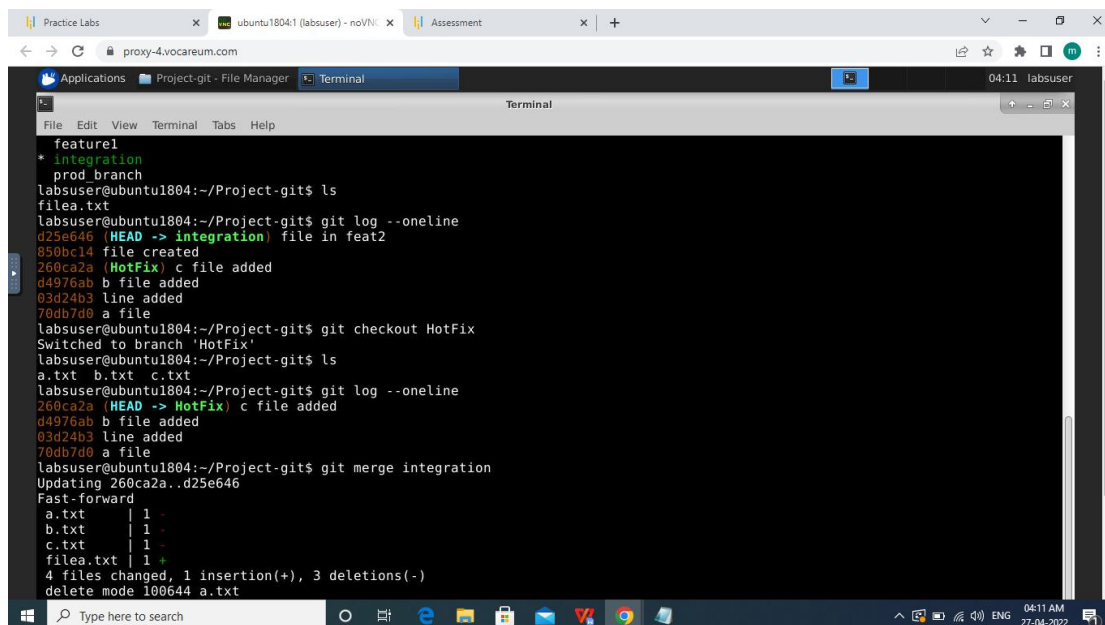
HotFix
feature1
* integration
prod_branch
labsuser@ubuntu1804:~/Project-git$ ls
filea.txt
labsuser@ubuntu1804:~/Project-git$ git log --oneline
d25e646 (HEAD -> integration) file in feat2
850bc14 file created
260ca2a (HotFix) c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-git$ git checkout feature1
Switched to branch 'feature1'
labsuser@ubuntu1804:~/Project-git$ git log --oneline
42a93e9 (HEAD -> feature1) file2 added in feature1
d25e646 (integration) file in feat2
850bc14 file created
260ca2a (HotFix) c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-git$
```



```
d25e646 (HEAD -> integration) HEAD@{3}: rebase (start): checkout integration
e0c7e90 HEAD@{4}: checkout: moving from integration to feature1
d25e646 (HEAD -> integration) HEAD@{5}: checkout: moving from feature1 to integration
e0c7e90 HEAD@{6}: commit: file2 added in feature1
260ca2a (HotFix) HEAD@{7}: checkout: moving from integration to feature1
d25e646 (HEAD -> integration) HEAD@{8}: merge feature2: Fast-forward
260ca2a (HotFix) HEAD@{9}: checkout: moving from feature2 to integration
d25e646 (HEAD -> integration) HEAD@{10}: commit: file in feat2
850bc14 HEAD@{11}: checkout: moving from prod_branch to feature2
f9dfb89 (prod_branch) HEAD@{12}: commit: a,b,c,deleted
260ca2a (HotFix) HEAD@{13}: checkout: moving from HotFix to prod_branch
260ca2a (HotFix) HEAD@{14}: checkout: moving from prod_branch to HotFix
260ca2a (HotFix) HEAD@{15}: checkout: moving from feature2 to prod_branch
850bc14 HEAD@{16}: commit: file created
260ca2a (HotFix) HEAD@{17}: checkout: moving from integration to feature2
260ca2a (HotFix) HEAD@{18}: checkout: moving from HotFix to integration
260ca2a (HotFix) HEAD@{19}: checkout: moving from prod_branch to HotFix
260ca2a (HotFix) HEAD@{20}: merge integration: Fast-forward
d4976ab HEAD@{21}: checkout: moving from HotFix to prod_branch
260ca2a (HotFix) HEAD@{22}: merge integration: Fast-forward
d4976ab HEAD@{23}: checkout: moving from integration to HotFix
260ca2a (HotFix) HEAD@{24}: merge feature1: Fast-forward
d4976ab HEAD@{25}: checkout: moving from feature1 to integration
260ca2a (HotFix) HEAD@{26}: commit: c file added
d4976ab HEAD@{27}: checkout: moving from prod_branch to feature1
d4976ab HEAD@{28}: merge integration: Fast-forward
70db7d0 HEAD@{29}: checkout: moving from HotFix to prod_branch
d4976ab HEAD@{30}: merge integration: Fast-forward
70db7d0 HEAD@{31}: checkout: moving from integration to HotFix
d4976ab HEAD@{32}: rebase (finish): returning to refs/heads/integration
```

## 5 Merge the Integration branch into Hotfix and Production branch to update these branches

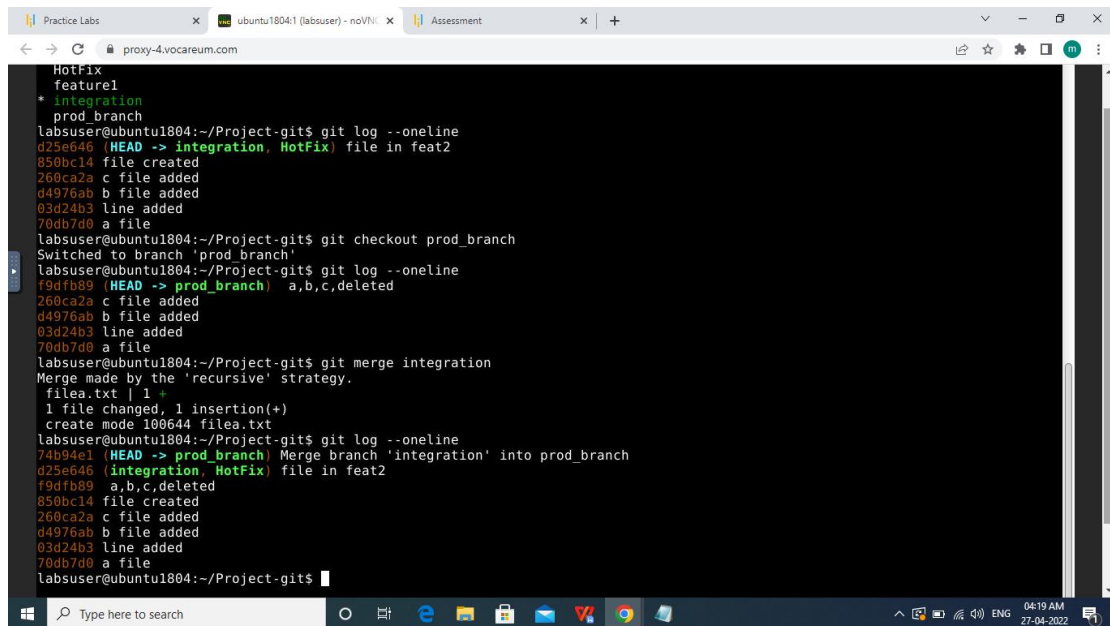
### 5.1 merge into HotFix branch



```
feature1
* integration
prod_branch
labsuser@ubuntu1804:~/Project-git$ ls
filea.txt
labsuser@ubuntu1804:~/Project-git$ git log --oneline
d25e646 (HEAD -> integration) file in feat2
850bc14 file created
260ca2a (HotFix) c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-git$ git checkout HotFix
Switched to branch 'HotFix'
labsuser@ubuntu1804:~/Project-git$ ls
a.txt b.txt c.txt
labsuser@ubuntu1804:~/Project-git$ git log --oneline
260ca2a (HEAD -> HotFix) c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-git$ git merge integration
Updating 260ca2a..d25e646
Fast-forward
 a.txt | 1
 b.txt | 1
 c.txt | 1
 filea.txt | 1 +
4 files changed, 1 insertion(+), 3 deletions(-)
delete mode 100644 a.txt
```

### 5.2 merge into production branch

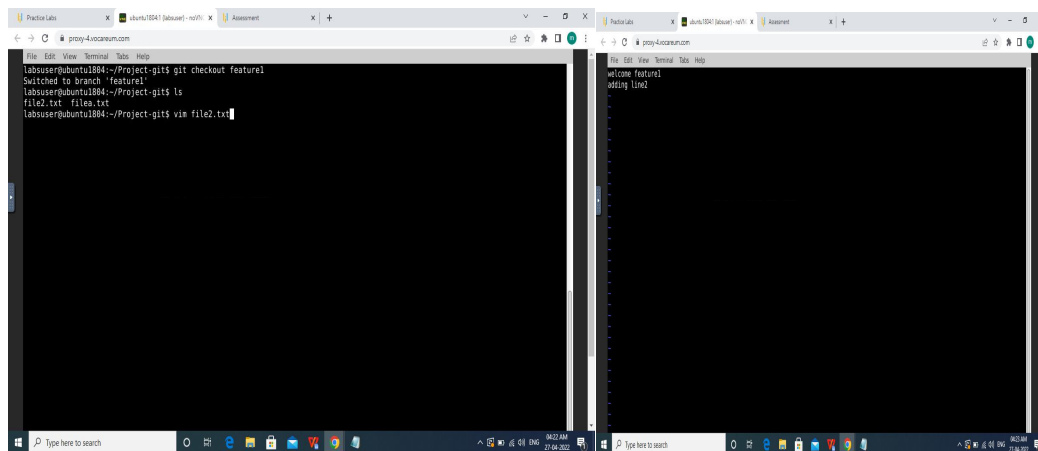




```
HotFix
feature1
* integration
prod_branch
labsuser@ubuntu1804:~/Project-gits$ git log --oneline
d25e646 (HEAD -> integration, HotFix) file in feat2
850bc14 file created
260ca2a c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-gits$ git checkout prod_branch
Switched to branch 'prod_branch'
labsuser@ubuntu1804:~/Project-gits$ git log --oneline
f9dfb89 (HEAD -> prod_branch) a,b,c,deleted
260ca2a c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-gits$ git merge integration
Merge made by the 'recursive' strategy.
filea.txt | 1 +
1 file changed, 1 insertion(+)
create mode 100644 filea.txt
labsuser@ubuntu1804:~/Project-gits$ git log --oneline
74b94e1 (HEAD -> prod_branch) Merge branch 'integration' into prod_branch
d25e646 (integration, HotFix) file in feat2
f9dfb89 a,b,c,deleted
850bc14 file created
260ca2a c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-gits$
```

## 6. Commit some changes in Feature 1 branch, and then merge it into Integration, Hotfix, and Production branch. Delete this branch once merging is complete

### 6.1 edit a file in feature1



```
labsuser@ubuntu1804:~/Project-gits$ git checkout feature1
Switched to branch 'feature1'
labsuser@ubuntu1804:~/Project-gits$ ls
file2.txt  filea.txt
labsuser@ubuntu1804:~/Project-gits$ vi file2.txt

Welcome feature1
adding line1
```

### 6.2 commit the changes in feature 1

```
hint: Maybe you wanted to say 'git add .'
hint: Turn this message off by running
hint: "git config advice.addEmptyPaths false"
labsuser@ubuntu1804:~/Project-git$ git add .
labsuser@ubuntu1804:~/Project-git$ git commit -m "line in file2"
[feature1 3caad4a] line in file2
1 file changed, 1 insertion(+)
labsuser@ubuntu1804:~/Project-git$ git log --oneline
3caad4a (HEAD -> feature1) line in file2
42a93e9 file2 added in feature1
d25e646 (integration, HotFix) file in feat2
850bc14 file created
260ca2a c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-git$ git checkout integration
Switched to branch 'integration'
labsuser@ubuntu1804:~/Project-git$ git log --onelin
fatal: unrecognized argument: --onelin
labsuser@ubuntu1804:~/Project-git$ git log --oneline
d25e646 (HEAD -> integration, HotFix) file in feat2
850bc14 file created
260ca2a c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-git$ git merge feature1
Updating d25e646..3caad4a
Fast-forward
 file2.txt | 2 ++
1 file changed, 2 insertions(+)
create mode 100644 file2.txt
labsuser@ubuntu1804:~/Project-git$
```

### 6.3 merge it into Integration,

```
42a93e9 file2 added in feature1
d25e646 (integration, HotFix) file in feat2
850bc14 file created
260ca2a c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-git$ git checkout integration
Switched to branch 'integration'
labsuser@ubuntu1804:~/Project-git$ git log --onelin
fatal: unrecognized argument: --onelin
labsuser@ubuntu1804:~/Project-git$ git log --oneline
d25e646 (HEAD -> integration, HotFix) file in feat2
850bc14 file created
260ca2a c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-git$ git merge feature1
Updating d25e646..3caad4a
Fast-forward
 file2.txt | 2 ++
1 file changed, 2 insertions(+)
create mode 100644 file2.txt
labsuser@ubuntu1804:~/Project-git$ git log --oneline
3caad4a (HEAD -> integration, feature1) line in file2
42a93e9 file2 added in feature1
d25e646 (HotFix) file in feat2
850bc14 file created
260ca2a c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-git$
```

### 6.4 merge it into HotFix branch

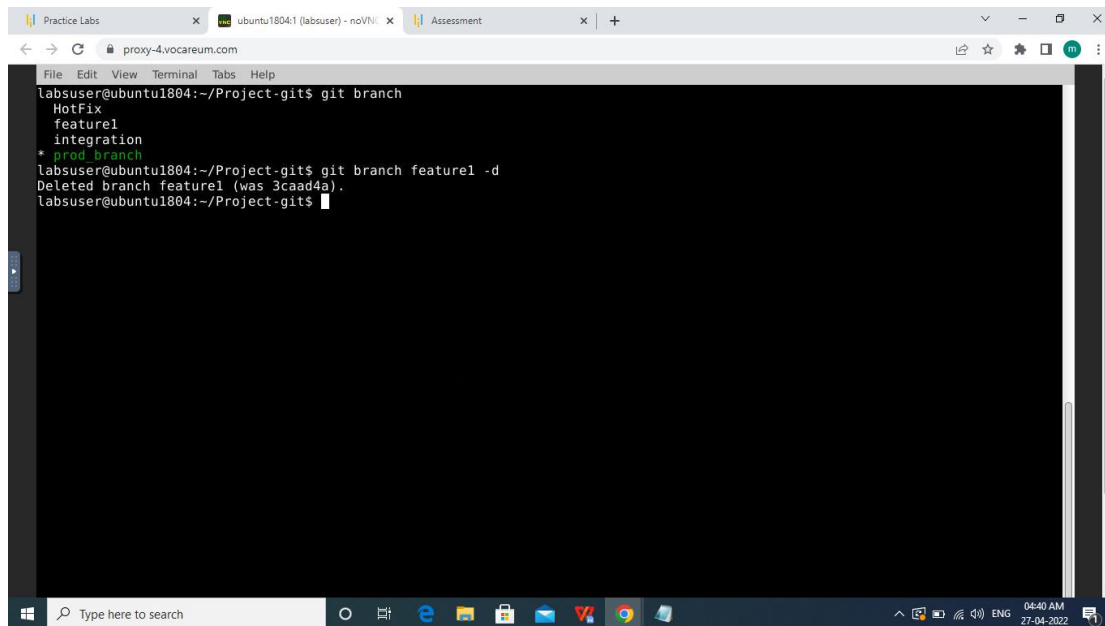


```
labsuser@ubuntu1804:~/Project-git$ git branch
HotFix
feature1
* integration
prod_branch
labsuser@ubuntu1804:~/Project-git$ git checkout HotFix
Switched to branch 'HotFix'
labsuser@ubuntu1804:~/Project-git$ git log --oneline
d25e646 (HEAD -> HotFix) file in feat2
850bc14 file created
260ca2a c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-git$ git merge feature1
Updating d25e646..3caad4a
Fast-forward
 file2.txt | 2 ++
 1 file changed, 2 insertions(+)
 create mode 100644 file2.txt
labsuser@ubuntu1804:~/Project-git$ git log --oneline
3caad4a (HEAD -> HotFix, integration, feature1) line in file2
42a93e9 file2 added in feature1
d25e646 file in feat2
850bc14 file created
260ca2a c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-git$
```

## 6.5 merge it into production branch

```
labsuser@ubuntu1804:~/Project-git$ git checkout prod_branch
Switched to branch 'prod_branch'
labsuser@ubuntu1804:~/Project-git$ git log --oneline
74b94e1 (HEAD -> prod_branch) Merge branch 'integration' into prod_branch
d25e646 file in feat2
f9dfb89 a,b,c,deleted
850bc14 file created
260ca2a c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-git$ git merge feature1
Merge made by the 'recursive' strategy.
 file2.txt | 2 ++
 1 file changed, 2 insertions(+)
 create mode 100644 file2.txt
labsuser@ubuntu1804:~/Project-git$ git log --oneline
4e9460e (HEAD -> prod_branch) Merge branch 'feature1' into prod_branch
3caad4a (integration, feature1, HotFix) line in file2
74b94e1 Merge branch 'integration' into prod_branch
42a93e9 file2 added in feature1
d25e646 file in feat2
f9dfb89 a,b,c,deleted
850bc14 file created
260ca2a c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-git$
```

## 6.6 delete the branch feature1

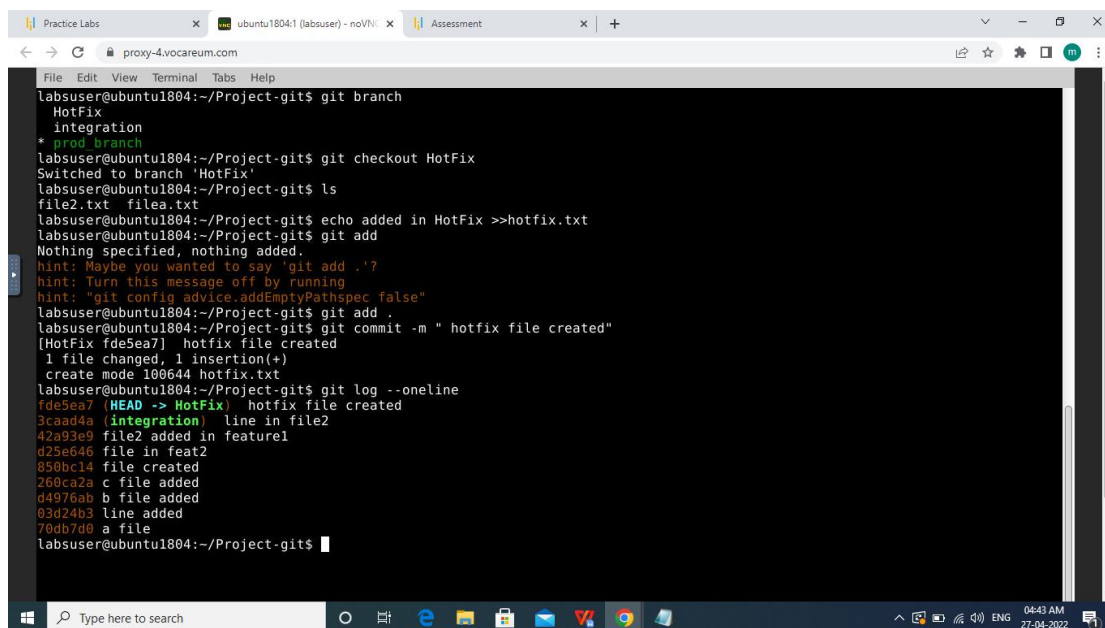


A screenshot of a terminal window within a web browser. The terminal shows the following commands and output:

```
labsuser@ubuntu1804:~/Project-gits$ git branch
HotFix
feature1
integration
* prod_branch
labsuser@ubuntu1804:~/Project-gits$ git branch feature1 -d
Deleted branch feature1 (was 3caad4a).
labsuser@ubuntu1804:~/Project-gits$
```

## 7 Commit some changes in the Hotfix branch and merge it into the Production as well as the Integration branch

### 7.1 commit some changes in hotfix



A screenshot of a terminal window showing the following commands and output:

```
labsuser@ubuntu1804:~/Project-gits$ git branch
HotFix
integration
* prod_branch
labsuser@ubuntu1804:~/Project-gits$ git checkout HotFix
Switched to branch 'HotFix'
labsuser@ubuntu1804:~/Project-gits$ ls
file2.txt  filea.txt
labsuser@ubuntu1804:~/Project-gits$ echo added in HotFix >>hotfix.txt
labsuser@ubuntu1804:~/Project-gits$ git add
Nothing specified, nothing added.
hint: Maybe you wanted to say 'git add .'
hint: Turn this message off by running
hint: "git config advice.addEmptyPathsSpec false"
labsuser@ubuntu1804:~/Project-gits$ git add .
labsuser@ubuntu1804:~/Project-gits$ git commit -m "hotfix file created"
[HotFix fde5ea7] hotfix file created
1 file changed, 1 insertion(+)
create mode 100644 hotfix.txt
labsuser@ubuntu1804:~/Project-gits$ git log --oneline
fde5ea7 (HEAD -> HotFix) hotfix file created
3caad4a (integration) line in file2
42a93e9 file2 added in feature1
d25e646 file in feat2
850bc14 file created
260ca2a c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-gits$
```

### 7.2 merge it into the integration branch

```
Practice Labs | ubuntu1804:1 (labsuser) - noVN: | Assessment | +
proxy-4.vocareum.com
d25e646 file in feat2
850bc14 file created
260ca2a c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-gits$ git checkout integration
Switched to branch 'integration'
labsuser@ubuntu1804:~/Project-gits$ git log --oneline
3caad4a (HEAD -> integration) line in file2
42a93e9 file2 added in feature1
d25e646 file in feat2
850bc14 file created
260ca2a c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-gits$ git merge HotFix
Updating 3caad4a..fde5ea7
Fast-forward
 hotfix.txt | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 hotfix.txt
labsuser@ubuntu1804:~/Project-gits$ git log --oneline
fde5ea7 (HEAD -> integration, HotFix) hotfix file created
3caad4a line in file2
42a93e9 file2 added in feature1
d25e646 file in feat2
850bc14 file created
260ca2a c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-gits$
```

## 7.3 merge it into the Production

```
Practice Labs | ubuntu1804:1 (labsuser) - noVN: | Assessment | +
proxy-4.vocareum.com
labsuser@ubuntu1804:~/Project-gits$ git checkout prod_branch
Switched to branch 'prod_branch'
labsuser@ubuntu1804:~/Project-gits$ git log --oneline
4e9460e (HEAD -> prod_branch) Merge branch 'feature1' into prod_branch
3caad4a line in file2
74b94e1 Merge branch 'integration' into prod_branch
42a93e9 file2 added in feature1
d25e646 file in feat2
f9dfb89 a,b,c,deleted
850bc14 file created
260ca2a c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-gits$ git merge HotFix
Merge made by the 'recursive' strategy.
 hotfix.txt | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 hotfix.txt
labsuser@ubuntu1804:~/Project-gits$ git log --oneline
4a9e753 (HEAD -> prod_branch) Merge branch 'HotFix' into prod_branch
fde5ea7 (integration, HotFix) hotfix file created
4e9460e Merge branch 'feature1' into prod_branch
3caad4a line in file2
74b94e1 Merge branch 'integration' into prod_branch
42a93e9 file2 added in feature1
d25e646 file in feat2
f9dfb89 a,b,c,deleted
850bc14 file created
260ca2a c file added
d4976ab b file added
03d24b3 line added
70db7d0 a file
labsuser@ubuntu1804:~/Project-gits$
```