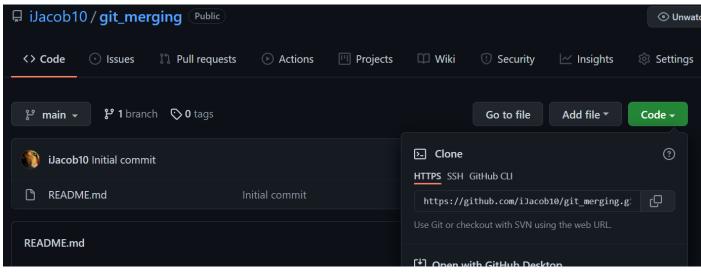
Steps to perform:

- 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 above figure
- 3. Commit some changes in the Feature 2 branch and merge it into the Integration branch. Delete this branch once merging is complete
- 4. Commit some changes in the Feature 1 branch and rebase it to the Integration branch
- 5. Merge the Integration branch into Hotfix and Production branch to update these branches
- 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
- 7. Commit some changes in the Hotfix branch and merge it into the Production as well as the Integration branch

https://github.com/iJacob10/git_merging.git



```
MINGW64:/d/git_merging
  ake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (main)
$ 1s
README.md
 Jake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (main)
$ git branch -m main production
 Jake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (production)
 git branch Hotfix
 Jake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (production)
 git branch Integration
 Jake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (production)
$ git branch feature1 Integration
 Jake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (production)
$ git branch feature2 Integration
 Jake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (production)
 git branch -a
 Hotfix
  Integration
  feature1
  feature2
             gin/HEAD -> origin/main
```

```
MINGW64:/d/ait meraina
                                                                                                                                                                    Jake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (production)
git config --global user.email "06iylinjacob@gmail.com"
iJake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (production)
$ git config --global user.name "iJacob10"
iJake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (production)
$ git remote add origin "https://github.com/iJacob10/git_merging.git"
fatal: remote origin already exists.
iJake@LAPTOP-B80SJ2V3 MINGW64 /<mark>d/git_merging (production)</mark>
$ git remote add origin1 "https://github.com/iJacob10/git_merging.git"
 .Jake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (production)
$ git branch
  Hotfix
  Integration
   feature1
  feature2
 .Jake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (production)
$ git checkout -b feature2
fatal: A branch named 'feature2' already exists.
  Jake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (production)
$ git checkout feature2
Switched to branch 'feature2'
```

```
MINGW64:/d/ait meraina
                                                                                                                                                                                                              П
 Jake@LAPTOP-8805J2V3 MINGW64 /d/git_merging (feature2)
echo "file from feature2 branch" >> new_feature2.txt
      @LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (feature2)
$ git add .
warning: LF will be replaced by CRLF in new_feature2.txt.
The file will have its original line endings in your working directory
 Jake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (feature2)
 git config core.autocrlf true
         .APTOP-B80SJ2V3 MINGW64 /d/git_merging (feature2)
 git status
 n branch feature2
Changes to be committed:
(use "git restore --staged <file>..." to unstage)
 Jake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (feature2)
echo "second file from feature2 branch" >> new_feature2a.txt
      @LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (feature2)
 git status
n branch feature2
Changes to be committed:
(use "git restore --staged <file>..." to unstage)
Untracked files:
(use "git add <file>..." to include in what will be committed)
 Jake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (feature2)
```

♦ MINGW64/d/git merging – □ >

```
MINGW64:/d/git_merging
                                                                                                                                                                                                                                                                                        П
  Jake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (feature)
echo "new file from feature1" >> new_feature1.txt
 Jake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (feature1)
echo "second file from feature1" >> new_feature1a.txt
  Jake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (feature1)
$ git add .
§ git add .
warning: LF will be replaced by CRLF in new_feature1.txt.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in new_feature1a.txt.
The file will have its original line endings in your working directory
iJake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (feature1)
$ git commit -m "first commit from feature1"
[feature1 357f842] first commit from feature1
2 files changed, 2 insertions(+)
create mode 100644 new_feature1.txt
create mode 100644 new_feature1a.txt
                                                GW64 /d/git_merging (feature1)
$ git checkout Integration
Switched to branch 'Integration'
           LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (Integration)
  git branch
  Hotfix
  feature1 production
                           OSJ2V3 MINGW64 /d/git_merging (Integration)
 git rebase feature1
First, rewinding head to replay your work on top of it...
 pplying: first commit from feature2
  Jake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (Integration)
```

♦ MINGW64/d/git merging

```
1) ake@LAPTOP-880532V3 MINGM64 /d/git_merging (Integration)
$ git checkout Hotfix

$ sit merge Integration
Updating 479c83d. d.375lef
Fast-forward
new_feature1.txt | 1 +
new_feature2.txt | 1 +
new_feature2.txt | 1 +
new_feature2.txt | 1 +
new_feature3.txt | 1 +
new_feature4.txt | 1 +
new_feature4.txt | 1 +
new_feature5.txt | 1 +
new_feature6.txt | 1 +
new_feature7.txt | 1 +
new_feature7.txt | 1 +
new_feature8.txt | 1 +
13ake@LAPTOP-880522V3 MINGM64 /d/git_merging (Hotfix)

$ git checkout production

$ sitched to branch 'production'

Your branch is up to date with 'origin/main'.

13ake@LAPTOP-880522V3 MINGM64 /d/git_merging (production)

$ git merge Integration

Updating 479c83d. d.375lef
Fast-forward

new_feature4.txt | 1 +
new_feature4.txt | 1 +
new_feature6.txt | 1 +
n
```

```
MINGW64:/d/ait meraina
                                                                                                                                                                                                                                                                                                             П
                                                      64 /d/git_merging (production)
  git checkout feature1
 witched to branch 'feature1'
  Jake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (feature1)
echo "third file from feature1" >> new_feature1b.txt
  Jake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (feature1)
sit add .

sit add .

varning: LF will be replaced by CRLF in new_feature1b.txt.

The file will have its original line endings in your working directory
iJake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (feature1)

git commit - m "second commit from feature1"

error: pathspec '-' did not match any file(s) known to git

error: pathspec 'm' did not match any file(s) known to git

error: pathspec 'second commit from feature1' did not match any file(s) known to git
iJake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (feature1)
$ git commit -m "second commit from feature1"
[feature1 62775e3] second commit from feature1
1 file changed, 1 insertion(+)
create mode 100644 new_feature1b.txt
                              0SJ2V3 MINGW64 /d/git_merging (feature1)
$ git checkout Hotfix
Switched to branch 'Hotfix'
  Jake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (Hotfix)
 git merge feature1
 graduage reacure;
lerge made by the 'recursive' strategy.
new_feature1b.txt | 1 +
1 file changed, 1 insertion(+)
create mode 100644 new_feature1b.txt
                                                  GW64 /d/git_merging (Hotfix)
 git checkout production
```

```
.Jake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (Hotfix)
$ git checkout production
Switched to branch 'production'
Your branch is ahead of 'origin/main' by 2 commits.
  (use "git push" to publish your local commits)
iJake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (production)
$ git merge feature1
Merge made by the 'recursive' strategy.
new_feature1b.txt | 1 +
1 file changed, 1 insertion(+)
create mode 100644 new_feature1b.txt
Jake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (production)
$ git checkout Integration
Switched to branch 'Integration'
iJake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (Integration)
$ git merge feature1
Merge made by the 'recursive' strategy.
new_feature1b.txt | 1 +
1 file changed, 1 insertion(+)
create mode 100644 new_feature1b.txt
iJake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (Integration)
$ git branch -d feature1
Deleted branch feature1 (was 62775e3).
```

```
MINGW64:/d/git_merging
                                                                                                                                                                                                                                                                  ð
                                      MINGW64 /d/git_merging (Integration)
  git branch
  Hotfix
   Integration
  production
 Jake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (Integration)
 Switched to branch 'Hotfix'
 Jake@LAPTOP-B80SJ2V3 MTNGW64 /d/git merging (Hotfix)
 ew_feature1.txt new_feature1a.txt new_feature1b.txt new_feature2.txt new_feature2a.txt README.md
 Jake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (Hotfix)
echo "first file from Hotfix" >> new_hotfix.txt
  Jake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (Hotfix)
Sate and .

Sight add .

Warning: LF will be replaced by CRLF in new_hotfix.txt.

The file will have its original line endings in your working directory
iJake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (Hotfix)
$ git commit -m "second commit from Hotfix"
[Hotfix 72c3975] second commit from Hotfix
1 file changed, 1 insertion(+)
create mode 100644 new_hotfix.txt
iJake@LAPTOP-880532V3 MINGW64 /d/git_merging (Hotfix)

git commit --amend -m "first commit from Hotfix"
[Hotfix 288f388] first commit from Hotfix
Date: Wed Oct 6 08:31:44 2021 +0530

1 file changed, 1 insertion(+)
create mode 100644 new_hotfix.txt
 Jake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (Hotfix)
```

```
iJake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (Hotfix)

$ git checkout production

Switched to branch 'production'

Your branch is ahead of 'origin/main' by 4 commits.

(use "git push" to publish your local commits)

iJake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (production)

$ git merge Hotfix

Merge made by the 'recursive' strategy.

new_hotfix.txt | 1 +

1 file changed, 1 insertion(+)

create mode 100644 new_hotfix.txt

iJake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (production)

$ git checkout Integration

Switched to branch 'Integration'

iJake@LAPTOP-B80SJ2V3 MINGW64 /d/git_merging (Integration)

$ git merge Hotfix

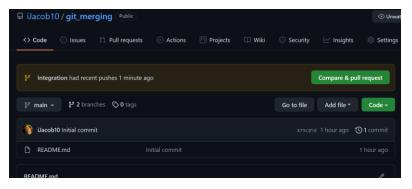
Merge made by the 'recursive' strategy.

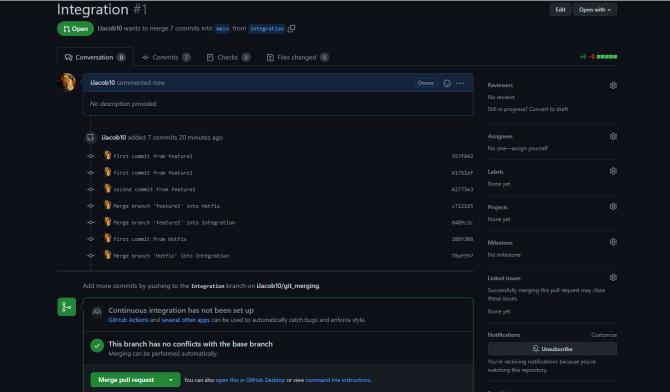
new_hotfix.txt | 1 +

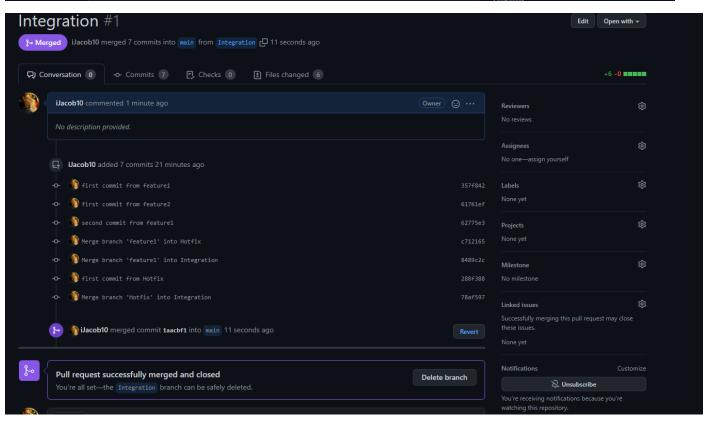
1 file changed, 1 insertion(+)

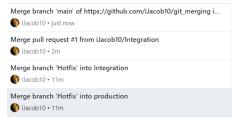
create mode 100644 new_hotfix.txt
```

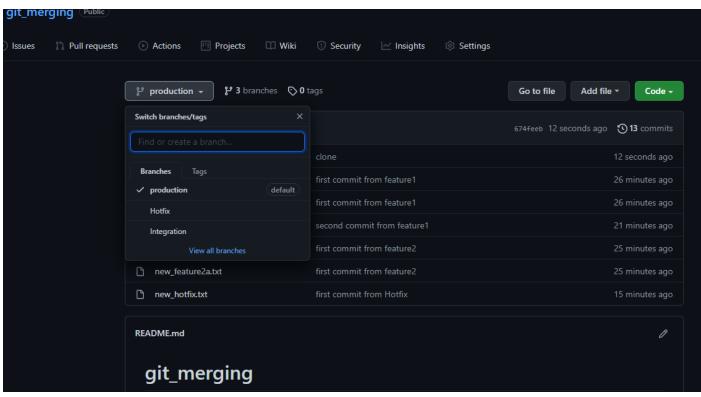
Pushing the code











```
**MNNAWA6/4/gt_merging (production)

**git log --graph --pretty-format: %CredXhiGcreet --XC(yellow)XdXCreest %S %Cgreen(%Cr) %C(bold blue).Xan>%Creest' --abbrev-commit

**S77450 - (HEAD -> production, origin/main, origin/HEAD) Merge branch 'main' of https://github.com/iJacoble/git_merging into production (6 minutes ago) <iJacoble>

**laachf1 - Merge pull request #1 from iJacoble/Integration (8 minutes ago) <iJacoble>

***Yasf597 - (origin/Integration, Integration) Merge branch 'Hotfix' into Integration (17 minutes ago) <iJacoble>

***Yasf597 - (origin/Integration, Integration) Merge branch 'Hotfix' into Integration (17 minutes ago) <iJacoble>

***Yasf597 - Merge branch 'Hotfix' into production (17 minutes ago) <iJacoble>

***Yasf597 - Merge branch 'Hotfix' into production (17 minutes ago) <iJacoble>

***Yasf597 - Merge branch 'Hotfix, Hotfix' into production (18 minutes ago) <iJacoble>

***Yasf597 - Merge branch 'Feature1' into Hotfix (24 minutes ago) <iJacoble>

***Yasf597 - Merge branch 'feature1' into production (22 minutes ago) <iJacoble>

***Yasf597 - Merge branch 'feature1' into production (22 minutes ago) <iJacoble>

***Yasf597 - Merge branch 'feature1 (24 minutes ago) <iJacoble>

***Yasf597 - Merge branch 'feature1 (24 minutes ago) <iJacoble>

***Yasf597 - Merge branch 'feature1 (24 minutes ago) <iJacoble>

***Yasf597 - Merge branch 'feature1 (24 minutes ago) <iJacoble>

****Yase597 - Minutes ago) <iJacoble>

***Yase597 - Minutes ago) <iJacoble
```