

**AMAL JYOTHI COLLEGE OF ENGINEERING**

**ADVANCED SOFTWARE ENGINEERING**

**ASSIGNMENT - 2**

SUBMITTED BY : SREELAKSHMI R

DEPARTMENT : MCA

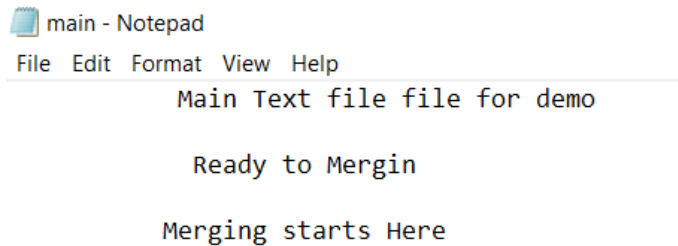
CLASS : REGULAR MCA2021-23B

ROLL NO : 43

**Aim:** Create a git repository. Push the repository to the remote. Create two branches (branch1 & branch2) from the master branch locally. Merge branch1 to branch2. Push the merged branch to the remote.

**Step 1:** Create Remote Repository and name it.

**Step 2:** Create a folder in Local Directory and open a file then add the content.



**Step 3:** Initialize the git in the working directory

```
sree1@LAPTOP-K0D2BU2T MINGW64 ~/OneDrive/Documents/SE Assignment
$ git init
Initialized empty Git repository in C:/Users/sree1/OneDrive/Documents/SE Assignment/.git/
```

**Step 4:** Add files to git

```
sree1@LAPTOP-K0D2BU2T MINGW64 ~/OneDrive/Documents/SE Assignment (master)
$ git add .
```

**Step 5:** Commit the files

```
sree1@LAPTOP-K0D2BU2T MINGW64 ~/OneDrive/Documents/SE Assignment (master)
$ git commit -m "first comit"
[master (root-commit) f5f8096] first comit
1 file changed, 5 insertions(+)
create mode 100644 main.txt
```

### Step 6: Create two branches branch1 and branch2

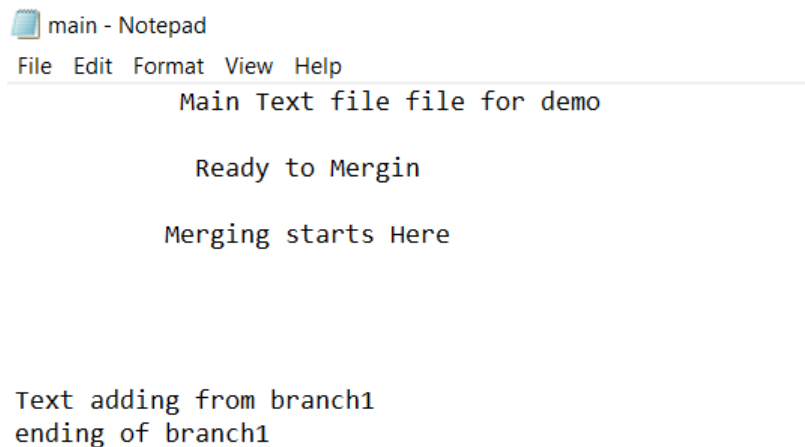
```
sree1@LAPTOP-K0D2BU2T MINGW64 ~/OneDrive/Documents/SE Assignment (master)
$ git branch branch1

sree1@LAPTOP-K0D2BU2T MINGW64 ~/OneDrive/Documents/SE Assignment (master)
$ git branch branch2
```

### Step 7: Switch to branch1

```
sree1@LAPTOP-K0D2BU2T MINGW64 ~/OneDrive/Documents/SE Assignment (master)
$ git checkout branch1
Switched to branch 'branch1'
```

### Step 8: Add contents to the file



The screenshot shows a Notepad window with the following text:

```
File Edit Format View Help
Main Text file file for demo

Ready to Mergin

Merging starts Here

Text adding from branch1
ending of branch1
```

### Step 9: Add files to git and commit in the branch1

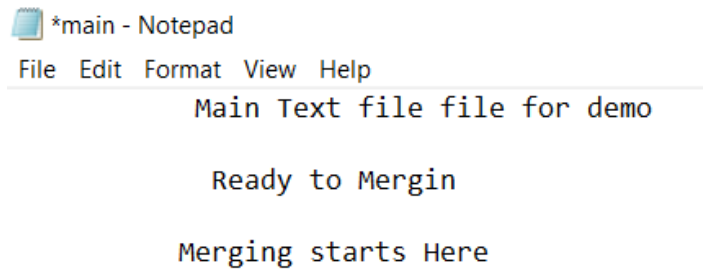
```
sree1@LAPTOP-K0D2BU2T MINGW64 ~/OneDrive/Documents/SE Assignment (branch1)
$ git add .

sree1@LAPTOP-K0D2BU2T MINGW64 ~/OneDrive/Documents/SE Assignment (branch1)
$ git commit -m "adding first branch"
[branch1 dacd808] adding first branch
1 file changed, 6 insertions(+), 1 deletion(-)
```

**Step 10:** Then switch to branch2

```
sree1@LAPTOP-K0D2BU2T MINGW64 ~/OneDrive/Documents/SE Assignment (branch1)
$ git checkout branch2
Switched to branch 'branch2'
```

**Step 11:** Edit the file



\*main - Notepad

File Edit Format View Help

Main Text file file for demo

Ready to Mergin

Merging starts Here

Starting of branch2  
This text came from branch2  
end of branch2

**Step 12:** Add file to git and commit it in branch1

```
sree1@LAPTOP-K0D2BU2T MINGW64 ~/OneDrive/Documents/SE Assignment (branch2)
$ git add .

sree1@LAPTOP-K0D2BU2T MINGW64 ~/OneDrive/Documents/SE Assignment (branch2)
$ git commit -m "adding to second branch"
[branch2 0032119] adding to second branch
1 file changed, 7 insertions(+), 1 deletion(-)
```

**Step 13:** Checkout to master branch and merge branch1

```
sree1@LAPTOP-K0D2BU2T MINGW64 ~/OneDrive/Documents/SE Assignment (branch2)
$ git checkout master
Switched to branch 'master'

sree1@LAPTOP-K0D2BU2T MINGW64 ~/OneDrive/Documents/SE Assignment (master)
$ git merge branch1
Updating f5f8096..dacd808
Fast-forward
 main.txt | 7 +++++-
 1 file changed, 6 insertions(+), 1 deletion(-)
```



main - Notepad

File Edit Format View Help

Main Text file file for demo

Ready to Mergin

Merging starts Here

Text adding from branch1  
ending of branch1

## Step 14: Merge branch 2 to master

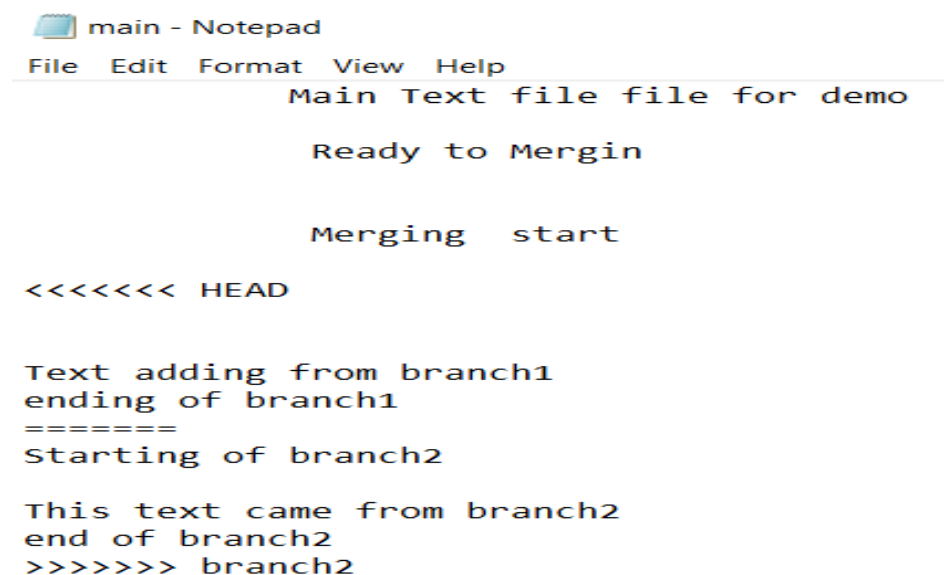
```
sree1@LAPTOP-K0D2BU2T MINGW64 ~/OneDrive/Documents/SE Assignment (master)
$ git merge branch2
Auto-merging main.txt
CONFLICT (content): Merge conflict in main.txt
Automatic merge failed; fix conflicts and then commit the result.
```

*A merge conflict is an event that occurs when Git is unable to automatically resolve differences in code between two commits. When all the changes in the code occur on different lines or in different files, Git will successfully merge commits without your help*

## How do you resolve merge conflict in git?

### Removed file merge conflicts

1. Open
2. Navigate into the local Git repository that has the merge conflict.
3. Generate a list of the files affected by the merge conflict.
4. Open your favorite text editor, such as Atom, and navigate to the file that has merge conflicts.
5. To see the beginning of the merge conflict in your file, search the file for the conflict marker <<<<<<>>>>> BRANCH-NAME. To see the beginning of the merge conflict in your file, search the file for the conflict marker <<<<<<>>>>> BRANCH-NAME.
6. Decide if you want to keep only your branch's changes, keep only the other branch's changes, or make a brand new change, which may incorporate changes from both branches. Delete the conflict markers <<<<<<>>>>> and make the changes you want in the final merge



The screenshot shows a Notepad window titled 'main - Notepad'. The menu bar includes 'File', 'Edit', 'Format', 'View', and 'Help'. The text content is as follows:

```
Main Text file file for demo

Ready to Mergin

Merging start

<<<<<<< HEAD

Text adding from branch1
ending of branch1
=====
Starting of branch2

This text came from branch2
end of branch2
>>>>>>> branch2
```

### Step 15: Edit the conflict

### Step 16: Then add to git and commit the changes

```
sreej@LAPTOP-K0D2BU2T MINGW64 ~/OneDrive/Documents/SE Assingment (master|MERGING)
$ git add .

sreej@LAPTOP-K0D2BU2T MINGW64 ~/OneDrive/Documents/SE Assingment (master|MERGING)
$ git commit -m "merging completed"
[master 5ba9df4] merging completed
```

### Step 17: Connect local repository to remote repository and push the changes

```
sreej@LAPTOP-K0D2BU2T MINGW64 ~/OneDrive/Documents/SE Assignment (master)
$ git remote add origin https://github.com/SreelakshmiR43/SE---Assignment.git


sreej@LAPTOP-K0D2BU2T MINGW64 ~/OneDrive/Documents/SE Assignment (master)
$ git branch -M main


sreej@LAPTOP-K0D2BU2T MINGW64 ~/OneDrive/Documents/SE Assignment (main)
$ git push -u origin main


Enumerating objects: 12, done.
Counting objects: 100% (12/12), done.
Delta compression using up to 8 threads
Compressing objects: 100% (8/8), done.
Writing objects: 100% (12/12), 1014 bytes | 338.00 KiB/s, done.
Total 12 (delta 4), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (4/4), done.
To https://github.com/SreelakshmiR43/SE---Assignment.git
 * [new branch]      main -> main
Branch 'main' set up to track remote branch 'main' from 'origin'.
```

\*main - Notepad  
File Edit Format View Help  
Main Text file file for demo  
Ready to Mergin  
Merging starts Here

Starting of branch2  
This text came from branch2  
end of branch2

 main ▾


 1 branch


 0 tags

Go to file

Add file ▾

Code ▾

 SreelakshmiR43 merging completed82cae8e 27 minutes ago ⌚ 4 commits

 main.txtmerging completed27 minutes ago