AMAL JYOTHI COLLEGE OF ENGINEERING

ADVANCED SOFTWARE ENGINEERING

ASSIGNMENT – 2

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DEPARTMENT : MCA

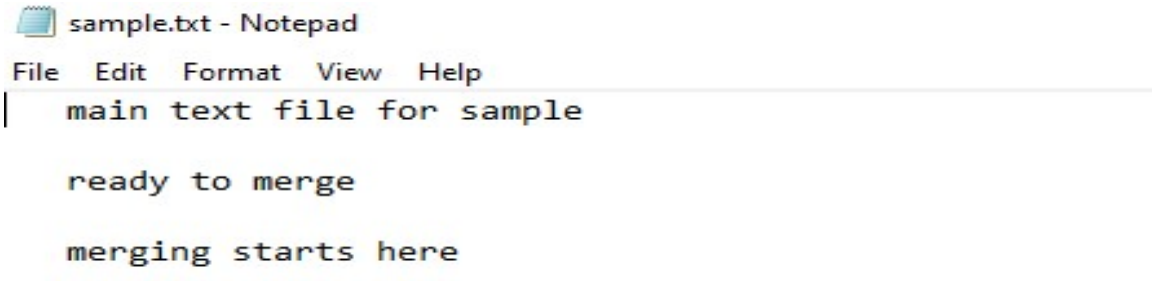
CLASS : REGULAR MCA2021-23B

ROLL NO : 4

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

Step 4: Add files to git and Commit the files

Step 5: Create two branches branch1 and branch2

```
create mode 100644 main.txt

ENOVO@DESKTOP-TOP5IVM MINGW64 ~/Desktop/se assignment (master)
$ git branch br1

ENOVO@DESKTOP-TOP5IVM MINGW64 ~/Desktop/se assignment (master)
$ git branch br2

ENOVO@DESKTOP-TOP5IVM MINGW64 ~/Desktop/se assignment (master)
```

Step6: Switch to branch1

```
$ git branch br2

LENOVO@DESKTOP-TOP5IVM MINGW64 ~/Desktop/se assignment (master)
$ git checkout br1
Switched to branch 'br1'

LENOVO@DESKTOP-TOP5IVM MINGW64 ~/Desktop/se assignment (br1)
```

Step 7: Add contents to the file

sample.txt - Notepad

File Edit Format View Help

```
main text file for sample

ready to merge

merging starts here



text adding from branch1
ending of branch1
```

Step 8: Add files to git and commit in the branch1

```
LENOVO@DESKTOP-TOP5IVM MINGW64 ~/Desktop/se assignment (br1)
$ git add sample.txt

LENOVO@DESKTOP-TOP5IVM MINGW64 ~/Desktop/se assignment (br1)
$ git commit -m "adding branch"
[br1 650aaac] adding branch
 1 file changed, 6 insertions(+), 1 deletion(-)
```

step 9: Then switch to branch2

```
 1 file changed, 6 insertions(+), 1 deletion(-)

LENOVO@DESKTOP-TOP5IVM MINGW64 ~/Desktop/se assignment (br1)
$ git checkout br2
Switched to branch 'br2'
```

Step 10: Edit the file

```
starting of branch2
this text came from branch2
ending of branch 1
```

Step 11: Add file to git and commit it in branch1

```
$ git add sample.txt

LENOVO@DESKTOP-TOP5IVM MINGW64 ~/Desktop/se assignment (br2)
$ git commit -m "adding second branch"
[br2 135be9e] adding second branch
 1 file changed, 8 insertions(+), 1 deletion(-)
```

Step 12: Checkout to master branch and merge branch1

```
LENOVO@DESKTOP-TOP5IVM MINGW64 ~/Desktop/se assignment (br2)
$ git checkout master
Switched to branch 'master'

LENOVO@DESKTOP-TOP5IVM MINGW64 ~/Desktop/se assignment (master)
$ git merge br1
Updating dcbf905..650aaac
Fast-forward
 sample.txt | 7 ++++++-
 1 file changed, 6 insertions(+), 1 deletion(-)
```

sample.txt - Notepad

File Edit Format View Help

```
main text file for sample

ready to merge

merging starts here



text adding from branch1
ending of branch1
```

Step 13: Merge branch 2 to master

```
LENOVO@DESKTOP-TOP5IVM MINGW64 ~/Desktop/se assignment (master)
$ git merge br2
Auto-merging sample.txt
CONFLICT (content): Merge conflict in sample.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

```
File  Edit  Format  View  Help
                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 14: Edit the conflict .Then add to git and commit the changes

```
LENOVO@DESKTOP-TOP5IVM MINGW64 ~/Desktop/se assignment (master|MERGING)
$ git add sample.txt

LENOVO@DESKTOP-TOP5IVM MINGW64 ~/Desktop/se assignment (master|MERGING)
$ git commit -m "merging completed"
[master 1013168] merging completed
```

Step 15: Connect local repository to remote repository and push the changes

```
LENOVO@DESKTOP-TOP5IVM MINGW64 ~/Desktop/se assignment (master)
$ git remote add origin https://github.com/athirabiju4246/sample.git

LENOVO@DESKTOP-TOP5IVM MINGW64 ~/Desktop/se assignment (master)
$ git branch -M main

LENOVO@DESKTOP-TOP5IVM MINGW64 ~/Desktop/se assignment (main)
$ git push origin main
Enumerating objects: 12, done.
Counting objects: 100% (12/12), done.
Delta compression using up to 4 threads
Compressing objects: 100% (8/8), done.
Writing objects: 100% (12/12), 985 bytes | 49.00 KiB/s, done.
Total 12 (delta 5), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (5/5), done.
To https://github.com/athirabiju4246/sample.git
 * [new branch]      main -> main
```

sample.txt - Notepad

File Edit Format View Help

```
main text file for sample

ready to merge

merging starts here



text adding from branch1
ending of branch1
starting of branch2
this text came from branch2
ending of branch 1
```