Problem Statement 5: Branching

• Create a new branch using git branch.

• Switch between branches using git checkout.

Solution :

Git branch - used to list all the branches in git.

Git branch branch name- used to create a new branch in git.

Git checkout branch name - used to switch from one branch to another branch.

```
C:\Users\DELL\gitsample>git branch
* master

C:\Users\DELL\gitsample>git branch feature

C:\Users\DELL\gitsample>git branch
  feature
* master

C:\Users\DELL\gitsample>git checkout feature
Switched to branch 'feature'

C:\Users\DELL\gitsample>git branch
* feature
  master

C:\Users\DELL\gitsample>git push -u origin feature
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0
remote:
remote: Create a pull request for 'feature' on GitHub by visiting:
remote:       https://github.com/kavinvelavan/gitsample/pull/new/feature
remote:
To https://github.com/kavinvelavan/gitsample.git
 * [new branch]      feature -> feature
branch 'feature' set up to track 'origin/feature'.
```

Problem Statement 6: Merging Branches
• Create a feature branch, make changes, and then merge it back into the main branch.
• Resolve any merge conflicts that may occur during the merging process.

Solution :

```
C:\Users\DELL\gitsample>git branch feature

C:\Users\DELL\gitsample>git branch
  feature
* master

C:\Users\DELL\gitsample>Notepad index.html

C:\Users\DELL\gitsample>git status
On branch master
Your branch is up to date with 'origin/master'.

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:   index.html

no changes added to commit (use "git add" and/or "git commit -a")
```

```
C:\Users\DELL\gitsample>git add .

C:\Users\DELL\gitsample>git commit "modified"
error: pathspec 'modified' did not match any file(s) known to git

C:\Users\DELL\gitsample>git commit -m "modified"
[master 5e4caa3] modified
 1 file changed, 2 insertions(+), 1 deletion(-)

C:\Users\DELL\gitsample>git push origin feature
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0
remote:
remote: Create a pull request for 'feature' on GitHub by visiting:
remote:      https://github.com/kavinvelavan/gitsample/pull/new/feature
remote:
To https://github.com/kavinvelavan/gitsample.git
 * [new branch]      feature -> feature
```

```
C:\Users\DELL\gitsample>git branch
* feature
  master

C:\Users\DELL\gitsample>git checkout master
Switched to branch 'master'
Your branch is ahead of 'origin/master' by 1 commit.
  (use "git push" to publish your local commits)

C:\Users\DELL\gitsample>git pull origin master
From https://github.com/kavinvelavan/gitsample
 * branch            master      -> FETCH_HEAD
Already up to date.

C:\Users\DELL\gitsample>git merge feature
Auto-merging index.html
CONFLICT (content): Merge conflict in index.html
Automatic merge failed; fix conflicts and then commit the result.
```

Go to github click the pull request and compare then resolve the conflicts.

kavinvelavan Merge pull request #1 from kavinvelavan/feature •••	
🗎 first.txt	first commit
🗎 index.html	modified
🗎 second.txt	modified

```
C:\Users\DELL\gitsample>git add .

C:\Users\DELL\gitsample>git status
On branch master
Your branch is ahead of 'origin/master' by 1 commit.
  (use "git push" to publish your local commits)

All conflicts fixed but you are still merging.
  (use "git commit" to conclude merge)

Changes to be committed:
        modified:   index.html


C:\Users\DELL\gitsample>git commit -m "conflicts fix"
[master 8be6366] conflicts fix

C:\Users\DELL\gitsample>git merge feature
Already up to date.

C:\Users\DELL\gitsample>git branch
  feature
* master
```

```
C:\Users\DELL\gitsample>git branch
  feature
* master

C:\Users\DELL\gitsample>git branch -d feature
Deleted branch feature (was 6e21894).

C:\Users\DELL\gitsample>git branch
* master
```

After deleting the feature branch in the github

master ▾ | 1 Branch | 0 Tags

kavinvelavan Merge pull request #1 from kavinvelavan/feature •••

first.txt	first commit
index.html	modified
second.txt	modified