**3.Please follow the instruction to complete the hands-on. Each instruction expects a command for the Git Bash**.

**Branching:**

1. Create a new branch **“GitNewBranch”.**
2. List all the local and remote branches available in the current trunk. Observe the “\*” mark which denote the current pointing branch.
3. Switch to the newly created branch. Add some files to it with some contents.
4. Commit the changes to the branch.
5. Check the status with **“git status”** command.

Solution:-

**Branching and Merging (with P4Merge)**

**1. Branching – Create & Work on New Branch**

**Step 1: Create a branch**

git branch GitNewBranch

**Step 2: List all local and remote branches**

git branch -a

\* master

GitNewBranch

**Step 3: Switch to the new branch**

git checkout GitNewBranch

**Step 4: Add a file in the branch**

echo "New changes in branch" > branchfile.txt

**Step 5: Commit the new file**

git add branchfile.txt

git commit -m "Added branchfile.txt in GitNewBranch"

**Step 6: Check git status**

git status

**output:-**

On branch GitNewBranch

nothing to commit, working tree clean

**2. Merging – Merge Branch into Master (Trunk)**

**Step 1: Switch back to master**

git checkout master

**Step 2: Show command-line diff between master and branch**

git diff master..GitNewBranch

**Step 3: (Optional) Setup & Run P4Merge to View Visual Differences**

If P4Merge is installed at:

makefile

C:\Program Files\Perforce\p4merge.exe

Run:

git config --global merge.tool p4merge

git config --global mergetool.p4merge.cmd "\"C:/Program Files/Perforce/p4merge.exe\" \"$BASE\" \"$LOCAL\" \"$REMOTE\" \"$MERGED\""

Launch merge tool (optional visual diff):

git mergetool

**Step 4: Merge the branch into master**

git merge GitNewBranch

output:-

Updating xxxxx..yyyyy

Fast-forward

branchfile.txt | 1 +

**Step 5: View Git log after merge**

git log --oneline --graph --decorate

output:

markdown

\* f3a1b23 (HEAD -> master) Added branchfile.txt in GitNewBranch

\* 73091f8 Initial commit

**Step 6: Delete the merged branch**

git branch -d GitNewBranch

**Step 7: Final git status**

git status

Output:

On branch master

nothing to commit, working tree clean