**Hands On – 3**

**Branching and Merging**

**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.

**Merging:**

1. Switch to the master
2. List out all the differences between trunk and branch. These provide the differences in command line interface.
3. List out all the visual differences between master and branch using **P4Merge tool**.
4. Merge the source branch to the trunk.
5. Observe the logging after merging using **“git log –oneline –graph –decorate”**
6. Delete the branch after merging with the trunk and observe the git status.

**Execution:**

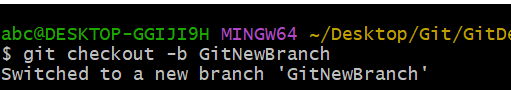
**1) Branching:**

**1) Creating a new branch called GitNewBranch**

**Command:**

git checkout -b GitNewBranch

**Output:**



**2) Listing all the Branches.**

**Command:**

git branch

**Output:**



**3) Switching to the new Branch and adding some files**

**Command:**

echo "Feature: demo file" > feature.txt

**Output:**



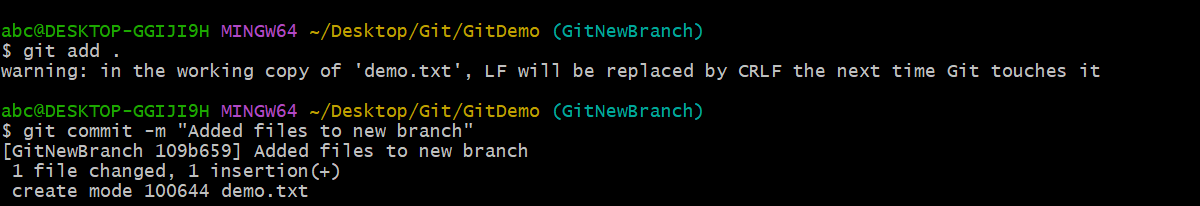
**4) Commiting the changes to the branch**

**Command:**

git add .

git commit -m "Added files to new branch"

**Output:**

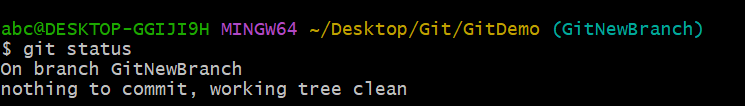


**5) Checking Status**

**Command:**

git status

**Output:**



**2) Merging:**

**1) Switching to Master**

**Command:**

git checkout master

**Output:**



**2) Showing differences between trunk and branch**

**Command:**

git diff master..GitNewBranch

**Output:**

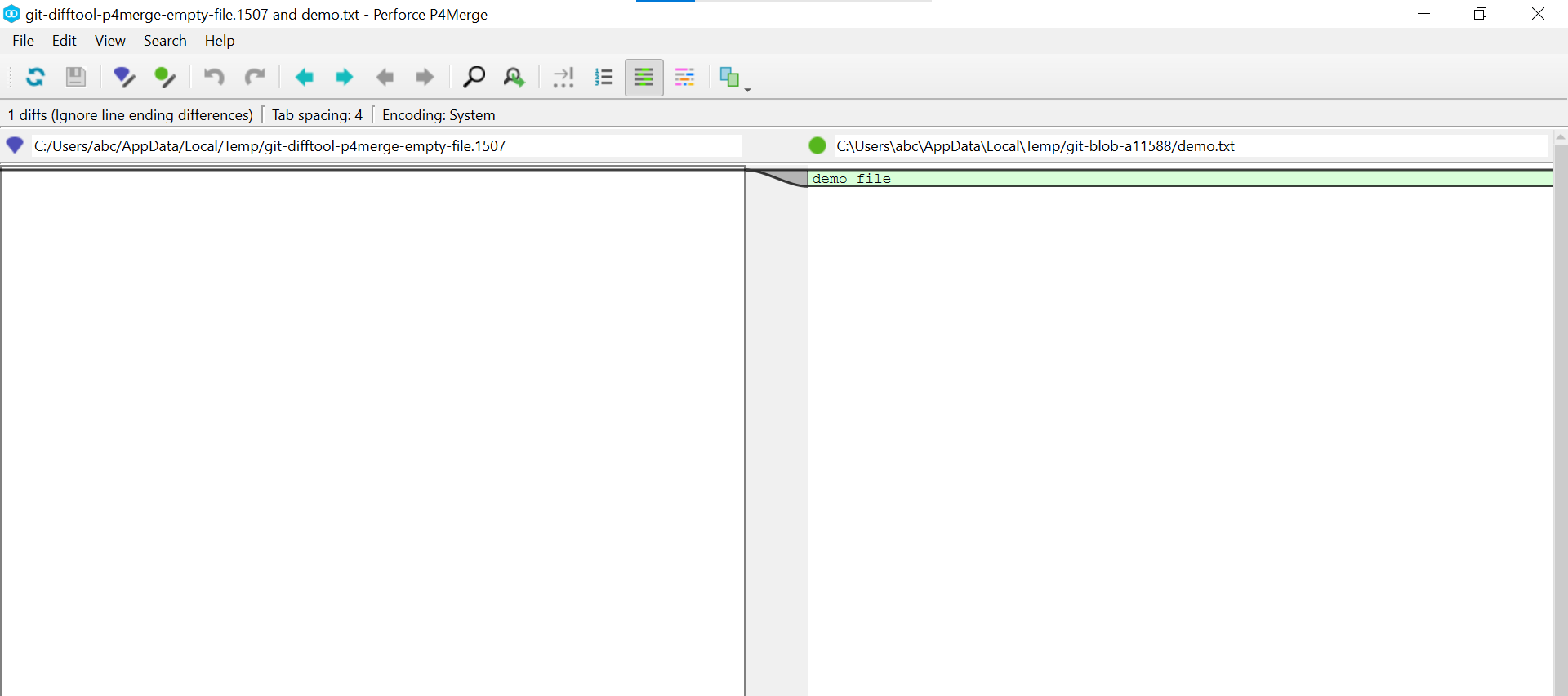


**3) Listing out all the visual differences between master and branch using P4Merge tool**

**Command:**

git difftool master GitNewBranch

**Output:**

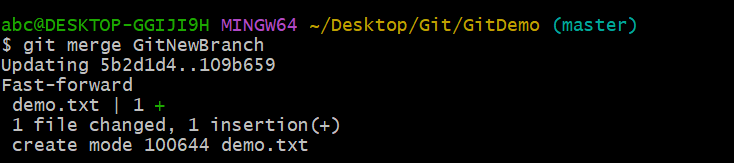


**4) Merge the source branch to the trunk**

**Command:**

git merge GitNewBranch

**Output:**

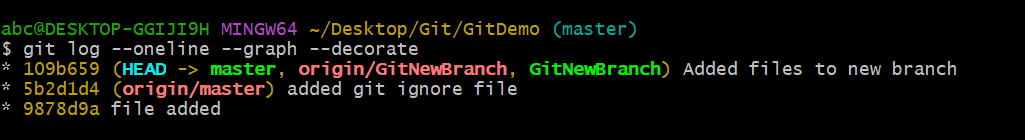


**5) Observing the logging after merging**

**Command:**

git log --oneline --graph –decorate

**Output:**



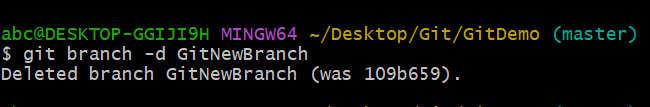
**6)Deleting the branch after merging with the trunk and observing the git status.**

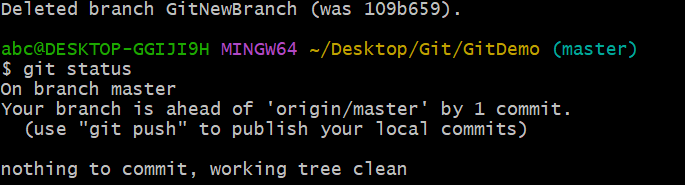
**Command:**

git branch -d GitNewBranch

git status

**Output:**





**GitLab repo Url:**

https://gitlab.com/teja272004/gitdemo