

1. go to repository folder

```
cd ~/GitDemo
```

2. switch to master and check status

```
git checkout master
git status
```

3. create and switch to a new branch

```
git branch GitWork
git checkout GitWork
```

4. add `hello.xml` in the branch

```
echo "<message>hello from branch</message>" > hello.xml
git add hello.xml
git commit -m "added hello.xml in GitWork branch"
```

5. update `hello.xml` in the branch

```
echo "<message>updated in branch</message>" > hello.xml
git add hello.xml
git commit -m "updated hello.xml in GitWork branch"
```

6. switch to master

```
git checkout master
```

7. add a different `hello.xml` in master

```
echo "<message>different content from master</message>" > hello.xml
git add hello.xml
git commit -m "added hello.xml in master"
```

8. check commit history

```
git log --oneline --graph --decorate --all
```

9. show differences between master and branch

```
git diff master GitWork
```

10. merge branch into master (will cause conflict)

```
git merge GitWork
```

11. resolve conflict

```
notepad++ hello.xml
```

(edit file to remove conflict markers, save and close)

12. stage and commit after resolving

```
git add hello.xml  
git commit -m "resolved merge conflict in hello.xml"
```

13. add backup file to .gitignore if needed

```
notepad++ .gitignore
```

(add backup file name or pattern, save and close)

```
git add .gitignore  
git commit -m "added backup file to .gitignore"
```

14. delete the merged branch

```
git branch -d GitWork
```

15. view final log

```
git log --oneline --graph --decorate
```

OUTPUT

```

new file mode 100644
index 0000000..0d1b9aa
--- /dev/null
+++ b/hello.xml
@@ -0,0 +1 @@
+<message>different content from master</message>

NO@DESKTOP-3CSNJRQ MINGW64 ~/GitDemo (GitWork)
$ git merge GitWork
Already up to date.

NO@DESKTOP-3CSNJRQ MINGW64 ~/GitDemo (GitWork)
$ notepad++ hello.xml

NO@DESKTOP-3CSNJRQ MINGW64 ~/GitDemo (GitWork)
$ git add hello.xml

NO@DESKTOP-3CSNJRQ MINGW64 ~/GitDemo (GitWork)
$ git commit -m "resolved merge conflict in hello.xml"
On branch GitWork
nothing to commit, working tree clean

NO@DESKTOP-3CSNJRQ MINGW64 ~/GitDemo (GitWork)
$ notepad++ .gitignore

NO@DESKTOP-3CSNJRQ MINGW64 ~/GitDemo (GitWork)
$ git add .gitignore

NO@DESKTOP-3CSNJRQ MINGW64 ~/GitDemo (GitWork)
$ git commit -m "added backup file to .gitignore"
On branch GitWork
nothing to commit, working tree clean

NO@DESKTOP-3CSNJRQ MINGW64 ~/GitDemo (GitWork)
$ git branch -d GitWork
error: cannot delete branch 'GitWork' used by worktree at 'C:/Users/DK
/GitDemo'

NO@DESKTOP-3CSNJRQ MINGW64 ~/GitDemo (GitWork)
$ git log --oneline --graph --decorate
* 973877e (HEAD -> GitWork) added hello.xml in master
* 5680a88 updated hello.xml in GitWork branch
* 1d31fa6 added hello.xml in GitWork branch
* 4212494 (origin/master, master) added branchfile.txt in GitNewBranch
* 1523963 ignore log files and log folder
* 1629148 updated welcome.txt
* 3d322d4 added welcome.txt

NO@DESKTOP-3CSNJRQ MINGW64 ~/GitDemo (GitWork)

```