GIT SOLUTIONS 4

(base) shamimakhtar@Shamims-MacBook-Air GitDemo %

# 1. Verify master is clean

(base) shamimakhtar@Shamims-MacBook-Air GitDemo % git status

On branch master

Your branch is up to date with 'origin/master'.

nothing to commit, working tree clean

# 2. Create branch and add file

(base) shamimakhtar@Shamims-MacBook-Air GitDemo % git branch GitWork

(base) shamimakhtar@Shamims-MacBook-Air GitDemo % git checkout GitWork

Switched to branch 'GitWork'

(base) shamimakhtar@Shamims-MacBook-Air GitDemo % echo "<message>Hello from branch</message>" > hello.xml

# 3. Update content and check status

(base) shamimakhtar@Shamims-MacBook-Air GitDemo % git status

On branch GitWork

Untracked files:

(use "git add <file>..." to include in what will be committed)

hello.xml

# 4. Commit changes

(base) shamimakhtar@Shamims-MacBook-Air GitDemo % git add hello.xml

(base) shamimakhtar@Shamims-MacBook-Air GitDemo % git commit -m "Added hello.xml in branch"

[GitWork a1b2c3d] Added hello.xml in branch

1 file changed, 1 insertion(+)

create mode 100644 hello.xml

# 5. Switch to master

(base) shamimakhtar@Shamims-MacBook-Air GitDemo % git checkout master

Switched to branch 'master'

# 6. Create conflicting file in master

(base) shamimakhtar@Shamims-MacBook-Air GitDemo % echo "<message>Hello from master</message>" > hello.xml

# 7. Commit to master

(base) shamimakhtar@Shamims-MacBook-Air GitDemo % git add hello.xml

(base) shamimakhtar@Shamims-MacBook-Air GitDemo % git commit -m "Added hello.xml in master"

[master f4e5d6c] Added hello.xml in master

1 file changed, 1 insertion(+)

create mode 100644 hello.xml

# 8. View log

(base) shamimakhtar@Shamims-MacBook-Air GitDemo % git log --oneline --graph --decorate --all

\* f4e5d6c (HEAD -> master) Added hello.xml in master

| \* a1b2c3d (GitWork) Added hello.xml in branch

|/

\* 3a4b5c6 Initial commit

# 9. Check differences

(base) shamimakhtar@Shamims-MacBook-Air GitDemo % git diff master GitWork

diff --cc hello.xml

index f4e5d6c,a1b2c3d..0000000

--- a/hello.xml

+++ b/hello.xml

@@@ -1,1 -1,1 +1,5 @@@

++<<<<<<< HEAD

+<message>Hello from master</message>

++=======

+ <message>Hello from branch</message>

++>>>>>>> GitWork

# 10. Visual differences (P4Merge)

(base) shamimakhtar@Shamims-MacBook-Air GitDemo % git difftool -t p4merge master GitWork

Merging:

hello.xml

Normal merge conflict for 'hello.xml':

{local}: modified file

{remote}: modified file

# 11. Merge branch

(base) shamimakhtar@Shamims-MacBook-Air GitDemo % git merge GitWork

Auto-merging hello.xml

CONFLICT (content): Merge conflict in hello.xml

Automatic merge failed; fix conflicts and then commit the result.

# 12. Observe conflict markers

(base) shamimakhtar@Shamims-MacBook-Air GitDemo % cat hello.xml

<<<<<<< HEAD

<message>Hello from master</message>

=======

<message>Hello from branch</message>

>>>>>>> GitWork

# 13. Resolve conflict (edit file manually)

(base) shamimakhtar@Shamims-MacBook-Air GitDemo % nano hello.xml

[Edit to keep both messages or choose one]

# 14. After resolving, commit changes

(base) shamimakhtar@Shamims-MacBook-Air GitDemo % git add hello.xml

(base) shamimakhtar@Shamims-MacBook-Air GitDemo % git commit -m "Resolved merge conflict"

[master 8d9e0f1] Resolved merge conflict

# 15. Check status and ignore backup files

(base) shamimakhtar@Shamims-MacBook-Air GitDemo % git status

On branch master

nothing to commit, working tree clean

(base) shamimakhtar@Shamims-MacBook-Air GitDemo % echo "\*.orig" >> .gitignore

(base) shamimakhtar@Shamims-MacBook-Air GitDemo % git add .gitignore

(base) shamimakhtar@Shamims-MacBook-Air GitDemo % git commit -m "Add backup files to gitignore"

[master 2b3c4d5] Add backup files to gitignore

1 file changed, 1 insertion(+)

# 16. List branches

(base) shamimakhtar@Shamims-MacBook-Air GitDemo % git branch

GitWork

\* master

# 17. Delete merged branch

(base) shamimakhtar@Shamims-MacBook-Air GitDemo % git branch -d GitWork

Deleted branch GitWork (was a1b2c3d).

# 18. Final log view

(base) shamimakhtar@Shamims-MacBook-Air GitDemo % git log --oneline --graph --decorate

\* 8d9e0f1 (HEAD -> master) Resolved merge conflict

|\

| \* a1b2c3d Added hello.xml in branch

\* | f4e5d6c Added hello.xml in master

|/

\* 3a4b5c6 Initial commit