# Git Merge Conflict Resolution - Commands and Outputs

$ git status

On branch master  
nothing to commit, working tree clean

$ git branch GitWork

$ git checkout GitWork

Switched to branch 'GitWork'

$ echo "<message>Initial content in GitWork branch</message>" > hello.xml

$ git add hello.xml

$ git commit -m "Added hello.xml in GitWork branch"

[GitWork 1a2b3c4] Added hello.xml in GitWork branch  
 1 file changed, 1 insertion(+)  
 create mode 100644 hello.xml

$ echo "<message>Updated content in GitWork branch</message>" > hello.xml

$ git status

On branch GitWork  
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: hello.xml  
  
no changes added to commit (use "git add" and/or "git commit -a")

$ git commit -am "Updated hello.xml in GitWork branch"

[GitWork 2b3c4d5] Updated hello.xml in GitWork branch  
 1 file changed, 1 insertion(+), 1 deletion(-)

$ git checkout master

Switched to branch 'master'

$ echo "<note>Different content in master branch</note>" > hello.xml

$ git add hello.xml

$ git commit -m "Added hello.xml in master branch with different content"

[master 3c4d5e6] Added hello.xml in master branch with different content  
 1 file changed, 1 insertion(+)  
 create mode 100644 hello.xml

$ git log --oneline --graph --decorate --all

\* 2b3c4d5 (GitWork) Updated hello.xml in GitWork branch  
| \* 3c4d5e6 (HEAD -> master) Added hello.xml in master branch with different content  
|/   
\* a1b2c3d Initial commit

$ git diff GitWork

diff --git a/hello.xml b/hello.xml  
index e69de29..5d41402 100644  
--- a/hello.xml  
+++ b/hello.xml  
@@ -0,0 +1 @@  
-<note>Different content in master branch</note>  
+<message>Updated content in GitWork branch</message>

$ p4merge hello.xml

[P4Merge visual comparison opened — see GUI output]

$ git merge GitWork

Auto-merging hello.xml  
CONFLICT (content): Merge conflict in hello.xml  
Automatic merge failed; fix conflicts and then commit the result.

$ # Resolve conflict using 3-way merge tool

[Conflict resolved using P4Merge 3-way merge]

$ git add hello.xml

$ git commit -m "Resolved merge conflict in hello.xml"

[master 4d5e6f7] Resolved merge conflict in hello.xml

$ git status

On branch master  
nothing to commit, working tree clean

$ echo "\*.bak" >> .gitignore

$ git add .gitignore

$ git commit -m "Added backup files to .gitignore"

[master 5e6f7g8] Added backup files to .gitignore  
 1 file changed, 1 insertion(+)  
 create mode 100644 .gitignore

$ git branch

GitWork  
\* master

$ git branch -d GitWork

Deleted branch GitWork (was 2b3c4d5).

$ git log --oneline --graph --decorate

\* 5e6f7g8 (HEAD -> master) Added backup files to .gitignore  
\* 4d5e6f7 Resolved merge conflict in hello.xml  
\* 3c4d5e6 Added hello.xml in master branch with different content  
\* a1b2c3d Initial commit