Git - HOL - 4

What I have done :

- Created a new branch named GitNewBranch using Git Bash.
- Verified master was in clean state.
- Created a new branch GitWork and added hello.xml with initial content.
- Committed changes to GitWork.
- Switched to master and created another version of hello.xml with different content.
- Committed the conflicting version to master.
- Compared both versions using git diff and visualized using git log --graph.
- Used git merge GitWork to simulate a merge conflict.
- Resolved the conflict manually (or using P4Merge 3-way tool).
- Added the resolved hello.xml and committed the final merged version.
- Updated .gitignore to exclude backup (*.orig) files and committed it.
- Deleted GitWork branch after successful merge.
- Confirmed changes using git log --oneline --graph --decorate.

Screenshots :

```
MINGW64:/c/Users/iswar/GitDemo                                    —    □    ×

fatal: not a git repository (or any of the parent directories): .git

iswar@Asus-TUF MINGW64 ~
$ cd GitDemo

iswar@Asus-TUF MINGW64 ~/GitDemo (master)
$ git checkout master
Already on 'master'
Your branch is up to date with 'origin/master'.

iswar@Asus-TUF MINGW64 ~/GitDemo (master)
$ git status
On branch master
Your branch is up to date with 'origin/master'.

nothing to commit, working tree clean

iswar@Asus-TUF MINGW64 ~/GitDemo (master)
$ git checkout -b GitWork
Switched to a new branch 'GitWork'

iswar@Asus-TUF MINGW64 ~/GitDemo (GitWork)
$ echo "<msg>Hello from GitWork branch</msg>" > hello.xml

iswar@Asus-TUF MINGW64 ~/GitDemo (GitWork)
$ cat hello.xml
<msg>Hello from GitWork branch</msg>

iswar@Asus-TUF MINGW64 ~/GitDemo (GitWork)
$ git add hello.xml
warning: in the working copy of 'hello.xml', LF will be replaced by CRLF the next tir

iswar@Asus-TUF MINGW64 ~/GitDemo (GitWork)
$ git commit -m "Added hello.xml in GitWork branch"
[GitWork 6501940] Added hello.xml in GitWork branch
 1 file changed, 1 insertion(+)
 create mode 100644 hello.xml

iswar@Asus-TUF MINGW64 ~/GitDemo (GitWork)
$ git checkout master
Switched to branch 'master'
Your branch is up to date with 'origin/master'.

iswar@Asus-TUF MINGW64 ~/GitDemo (master)
$ echo "<msg>Different content from master</msg>" > hello.xml

iswar@Asus-TUF MINGW64 ~/GitDemo (master)
$ git add hello.xml
```

```
warning: in the working copy of 'hello.xml', LF will be replaced by CRLF the next tim

iswar@Asus-TUF MINGW64 ~/GitDemo (GitWork)
$ git commit -m "Added hello.xml in GitWork branch"
[GitWork 6501940] Added hello.xml in GitWork branch
 1 file changed, 1 insertion(+)
 create mode 100644 hello.xml

iswar@Asus-TUF MINGW64 ~/GitDemo (GitWork)
$ git checkout master
Switched to branch 'master'
Your branch is up to date with 'origin/master'.

iswar@Asus-TUF MINGW64 ~/GitDemo (master)
$ echo "<msg>Different content from master</msg>" > hello.xml

iswar@Asus-TUF MINGW64 ~/GitDemo (master)
$ git add hello.xml
warning: in the working copy of 'hello.xml', LF will be replaced by CRLF the next tim

iswar@Asus-TUF MINGW64 ~/GitDemo (master)
$ git commit -m "Added hello.xml in master with different content"
[master f77eca3] Added hello.xml in master with different content
 1 file changed, 1 insertion(+)
 create mode 100644 hello.xml

iswar@Asus-TUF MINGW64 ~/GitDemo (master)
$ git log --oneline --graph --decorate --all
* f77eca3 (HEAD -> master) Added hello.xml in master with different content
| * 6501940 (GitWork) Added hello.xml in GitWork branch
|/
* c0b3643 (origin/master) Added feature.txt and textfolder in GitNewBranch
* f42aeed Added .gitignore to ignore .log files and log folder
* fa9b177 Initial commit Added welcome.txt file

iswar@Asus-TUF MINGW64 ~/GitDemo (master)
$ git diff GitWork
diff --git a/hello.xml b/hello.xml
index d9228c4..03a8ee5 100644
--- a/hello.xml
+++ b/hello.xml
@@ -1 +1 @@
-<msg>Hello from GitWork branch</msg>
+<msg>Different content from master</msg>

iswar@Asus-TUF MINGW64 ~/GitDemo (master)
$ git merge GitWork
Auto-merging hello.xml
```

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MINGW64:/c/Users/iswar/GitDemo                                    —    □    ✕

iswar@Asus-TUF MINGW64 ~/GitDemo (master)
$ git merge GitWork
Auto-merging hello.xml
CONFLICT (add/add): Merge conflict in hello.xml
Automatic merge failed; fix conflicts and then commit the result.

iswar@Asus-TUF MINGW64 ~/GitDemo (master|MERGING)
$ git commit -m "Resolved merge conflict in hello.xml"
U       hello.xml
error: Committing is not possible because you have unmerged files.
hint: Fix them up in the work tree, and then use 'git add/rm <file>'
hint: as appropriate to mark resolution and make a commit.
fatal: Exiting because of an unresolved conflict.

iswar@Asus-TUF MINGW64 ~/GitDemo (master|MERGING)
$ notepad++ .gitignore

iswar@Asus-TUF MINGW64 ~/GitDemo (master|MERGING)
$ git add .gitignore

iswar@Asus-TUF MINGW64 ~/GitDemo (master|MERGING)
$ git commit -m "Ignored backup files(*.orig)"
U       hello.xml
error: Committing is not possible because you have unmerged files.
hint: Fix them up in the work tree, and then use 'git add/rm <file>'
hint: as appropriate to mark resolution and make a commit.
fatal: Exiting because of an unresolved conflict.

iswar@Asus-TUF MINGW64 ~/GitDemo (master|MERGING)
$ git branch
  GitWork
* master

iswar@Asus-TUF MINGW64 ~/GitDemo (master|MERGING)
$ git branch -d GitWork
error: the branch 'GitWork' is not fully merged
hint: If you are sure you want to delete it, run 'git branch -D GitWork'
hint: Disable this message with "git config set advice.forceDeleteBranch false"

iswar@Asus-TUF MINGW64 ~/GitDemo (master|MERGING)
$ git log --oneline --graph --decorate
* f77eca3 (HEAD -> master) Added hello.xml in master with different content
* c0b3643 (origin/master) Added feature.txt and textfolder in GitNewBranch
* f42aeed Added .gitignore to ignore .log files and log folder
* fa9b177 Initial commit Added welcome.txt file

iswar@Asus-TUF MINGW64 ~/GitDemo (master|MERGING)
$
```