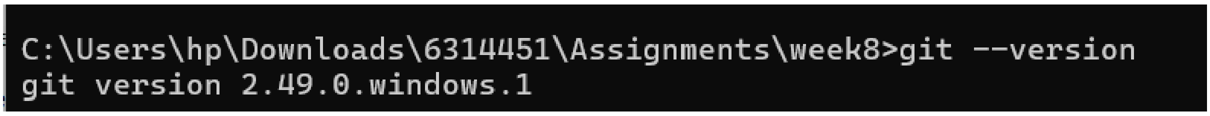
# HANDSON EXERCISES - WEEK 8

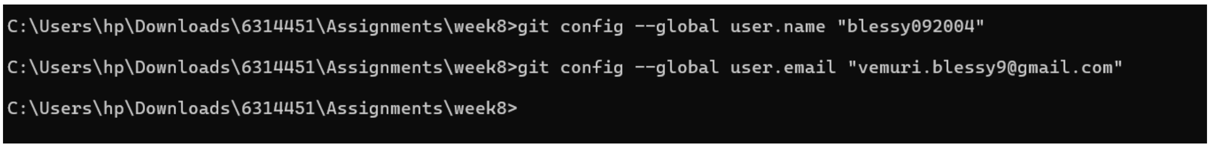
### Exercise : Git Setup and Repository Push to GitLab

### Git Installation Check

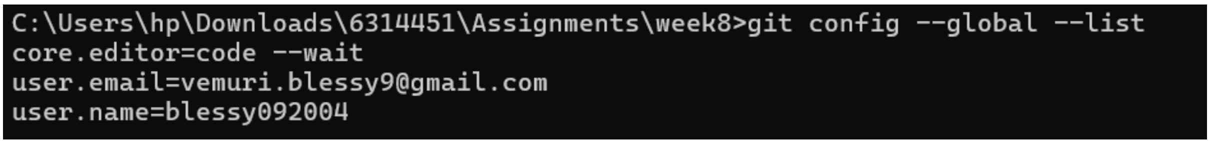


```
C:\Users\hp\Downloads\6314451\Assignments\week8>git --version
git version 2.49.0.windows.1
```

### Git Global Configuration

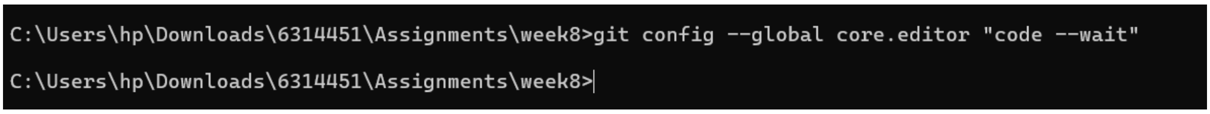


```
C:\Users\hp\Downloads\6314451\Assignments\week8>git config --global user.name "blessy092004"

C:\Users\hp\Downloads\6314451\Assignments\week8>git config --global user.email "vemuri.blessy9@gmail.com"

C:\Users\hp\Downloads\6314451\Assignments\week8>
```

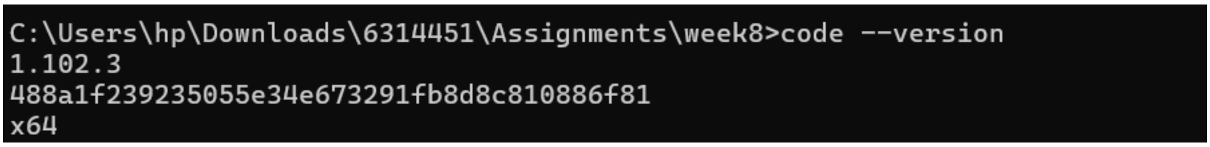


```
C:\Users\hp\Downloads\6314451\Assignments\week8>git config --global --list
core.editor=code --wait
user.email=vemuri.blessy9@gmail.com
user.name=blessy092004
```

### Setting VS Code as Default Git Editor

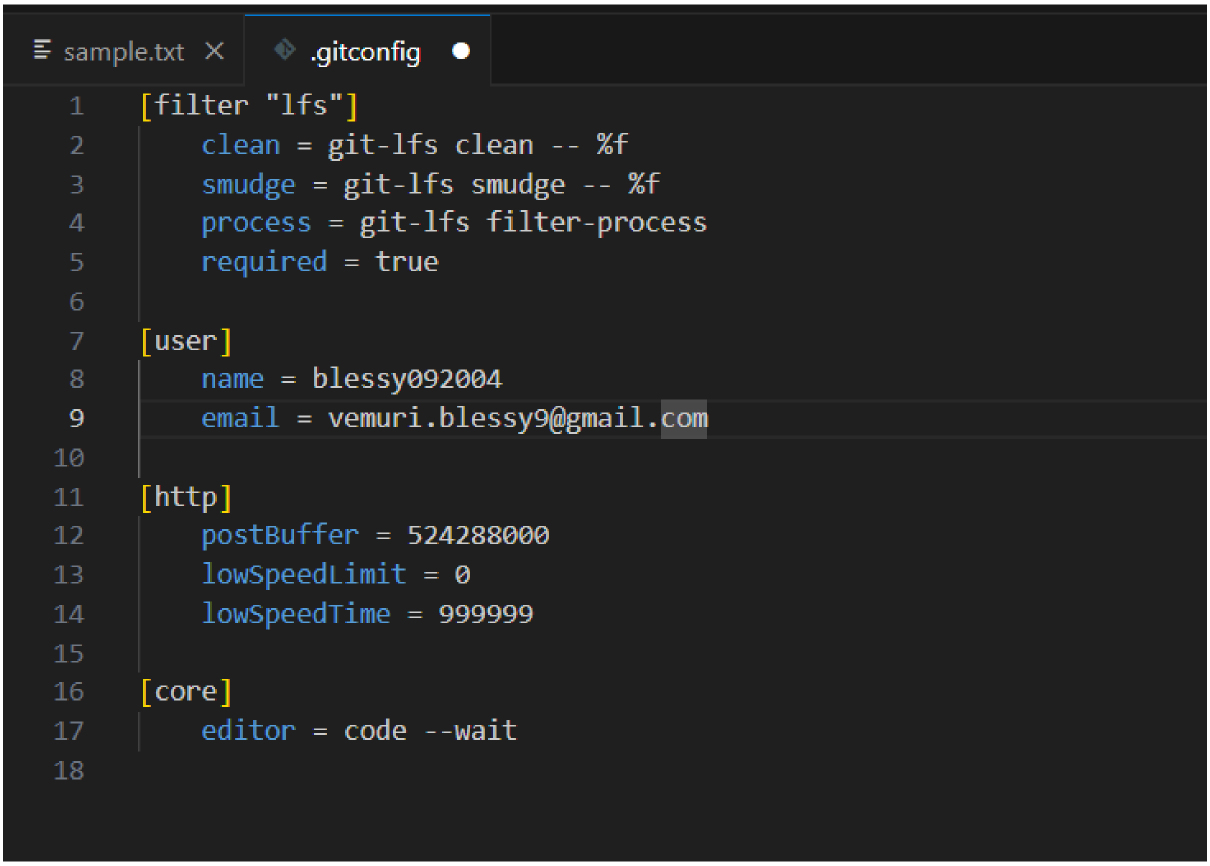


```
C:\Users\hp\Downloads\6314451\Assignments\week8>git config --global core.editor "code --wait"

C:\Users\hp\Downloads\6314451\Assignments\week8>
```



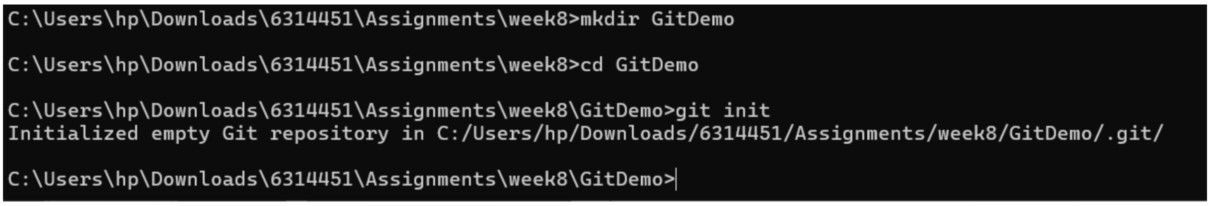
```
C:\Users\hp\Downloads\6314451\Assignments\week8>code --version
1.102.3
488a1f239235055e34e673291fb8d8c810886f81
x64
```

### Opening .gitconfig in VS Code

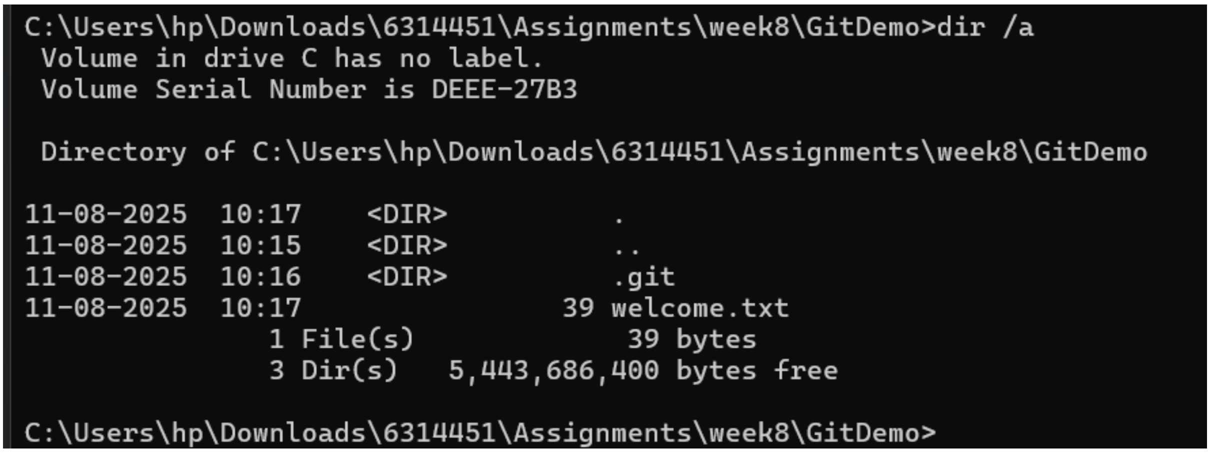


```
[filter "lfs"]
    clean = git-lfs clean -- %f
    smudge = git-lfs smudge -- %f
    process = git-lfs filter-process
    required = true

[user]
    name = blessy092004
    email = vemuri.blessy9@gmail.com

[http]
    postBuffer = 524288000
    lowSpeedLimit = 0
    lowSpeedTime = 999999

[core]
    editor = code --wait

```

### Initializing Git Repository

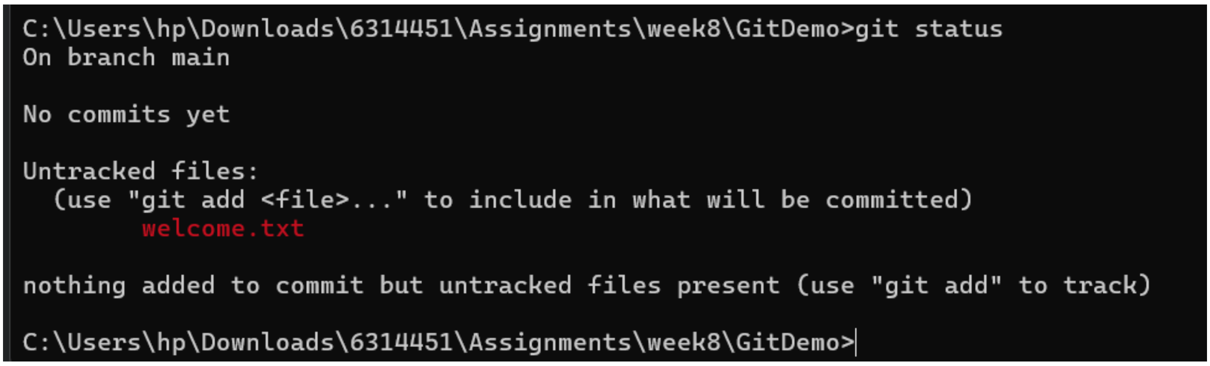


```
C:\Users\hp\Downloads\6314451\Assignments\week8>mkdir GitDemo

C:\Users\hp\Downloads\6314451\Assignments\week8>cd GitDemo

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git init
Initialized empty Git repository in C:/Users/hp/Downloads/6314451/Assignments/week8/GitDemo/.git/

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>
```



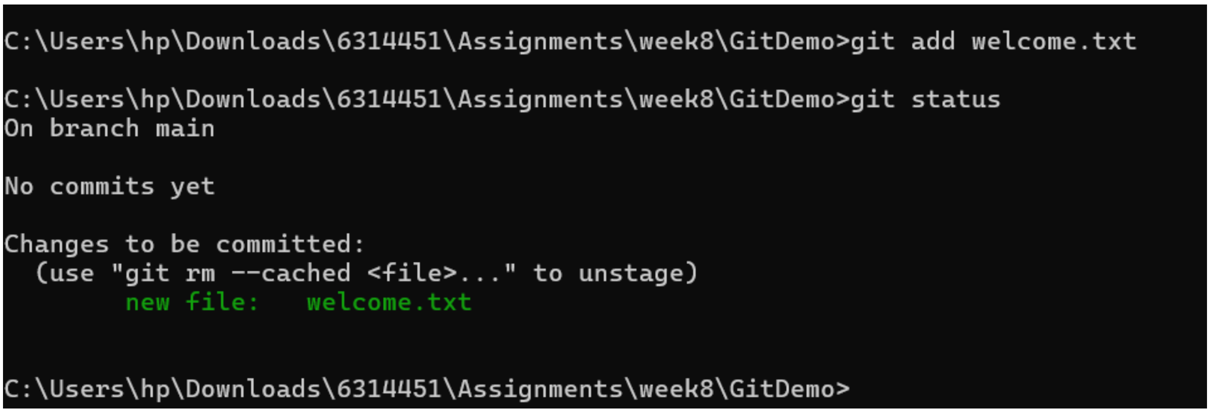
```
C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>dir /a
 Volume in drive C has no label.
 Volume Serial Number is DEEE-27B3

 Directory of C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo

11-08-2025  10:17    <DIR>          .
11-08-2025  10:15    <DIR>          ..
11-08-2025  10:16    <DIR>          .git
11-08-2025  10:17                39 welcome.txt
               1 File(s)             39 bytes
               3 Dir(s)   5,443,686,400 bytes free

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>
```

### Checking Git Status (Untracked)



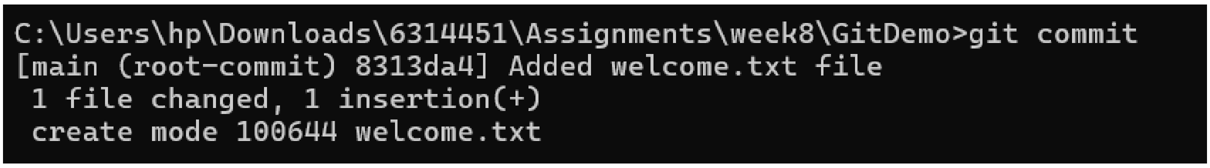
```
C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git status
On branch main

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        welcome.txt

nothing added to commit but untracked files present (use "git add" to track)

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>
```

### Adding File to Staging



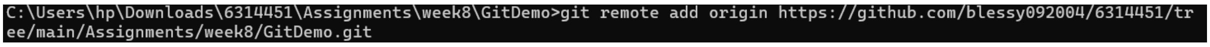
```
C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git add welcome.txt

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git status
On branch main

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   welcome.txt


C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>
```

### Committing Changes with VS Code Editor



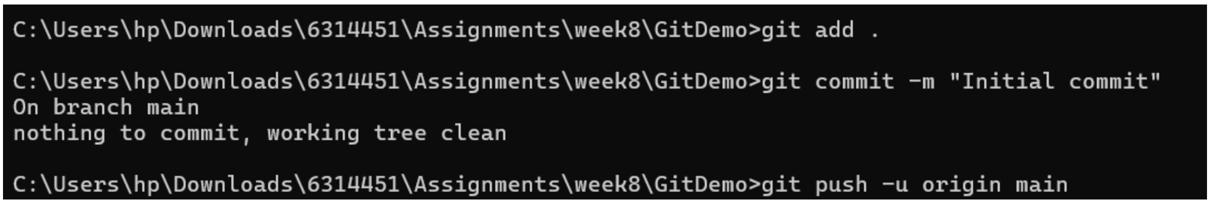
```
C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git commit
[main (root-commit) 8313da4] Added welcome.txt file
 1 file changed, 1 insertion(+)
 create mode 100644 welcome.txt
```

### Remote Repository Creation & Linking Remote to Local



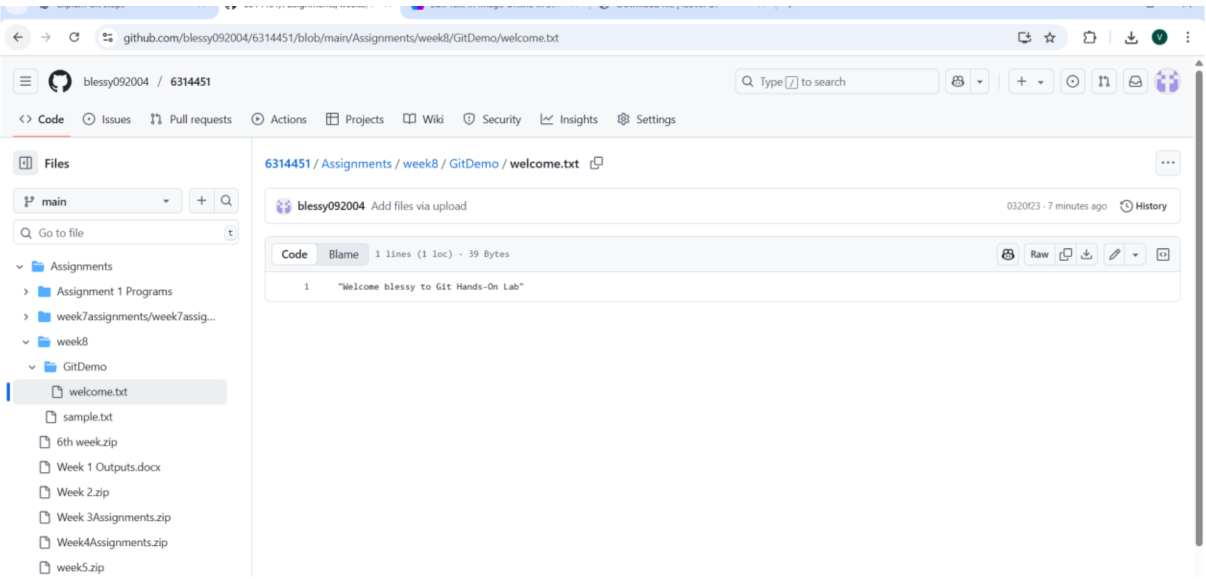
```
C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git remote add origin https://github.com/blessy092004/6314451/tr
ee/main/Assignments/week8/GitDemo.git
```

### Successful Push to Remote



```
C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git add .

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git commit -m "Initial commit"
On branch main
nothing to commit, working tree clean

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git push -u origin main
```

### Final Repository on GitLab

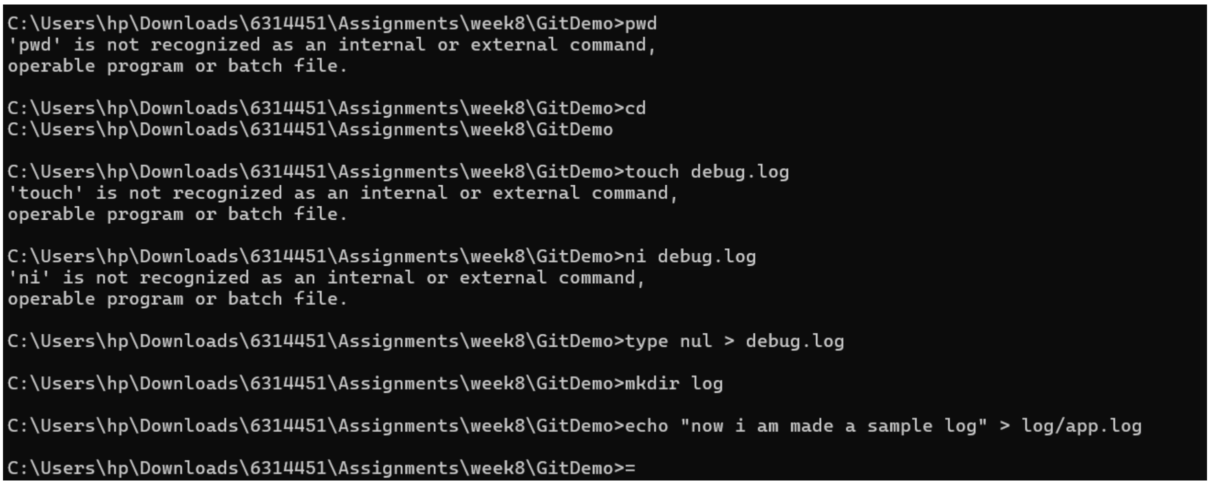


```
"Welcome blessy to Git Hands-On Lab"
```

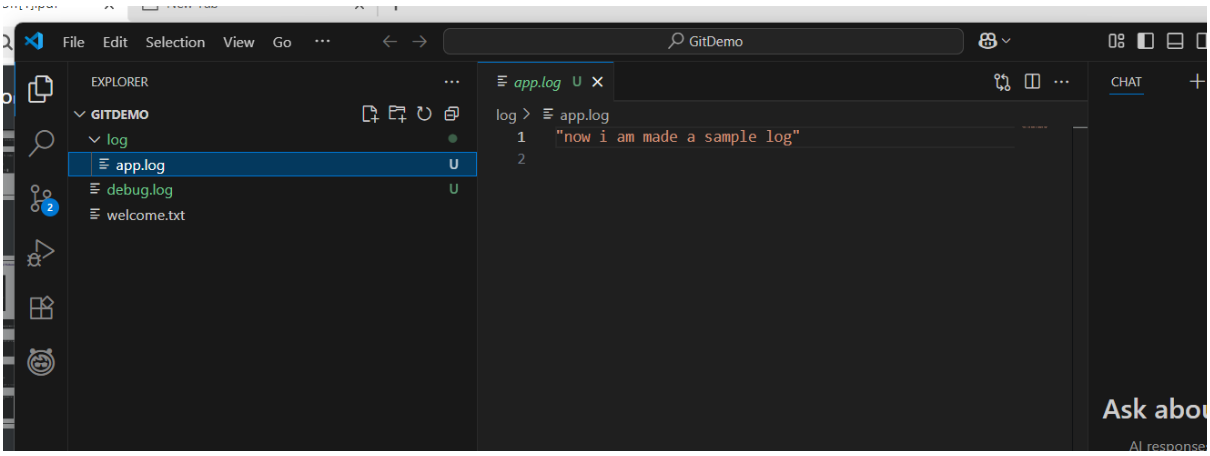
# File : 2. Git-HOL.docx

## Exercise : Ignoring Unwanted Files and Folders in Git using .gitignore

### Current Repository

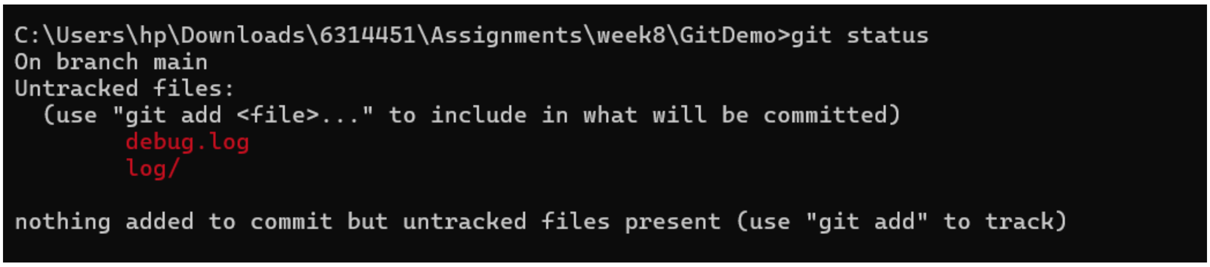


```
C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>pwd
'pwd' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>cd
C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>touch debug.log
'touch' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>ni debug.log
'ni' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>type nul > debug.log

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>mkdir log

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>echo "now i am made a sample log" > log/app.log

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>=
```



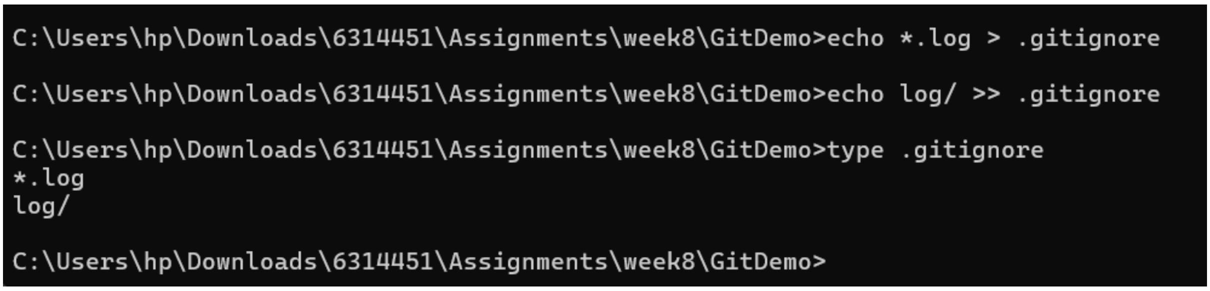
```
"now i am made a sample log"
```

### Git Status Before Ignoring



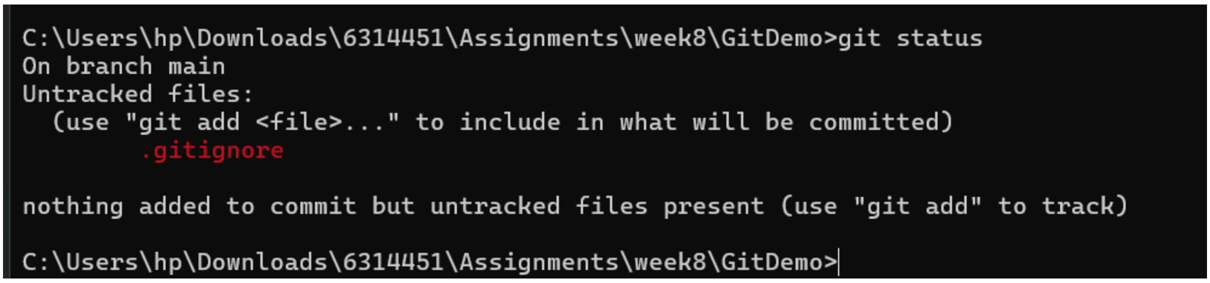
```
C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git status
On branch main
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        debug.log
        log/

nothing added to commit but untracked files present (use "git add" to track)
```

### Updating .gitignore File



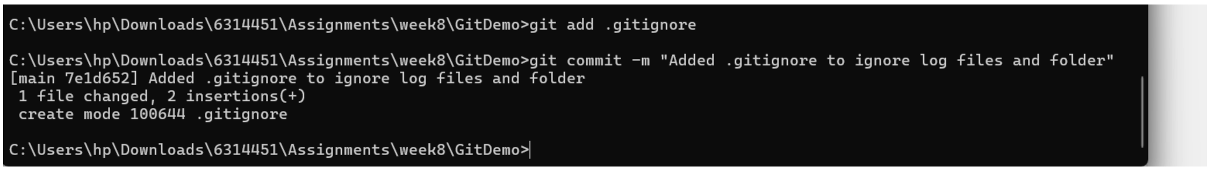
```
C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>echo *.log > .gitignore

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>echo log/ >> .gitignore

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>type .gitignore
*.log
log/

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>
```

### Git Status After Ignoring

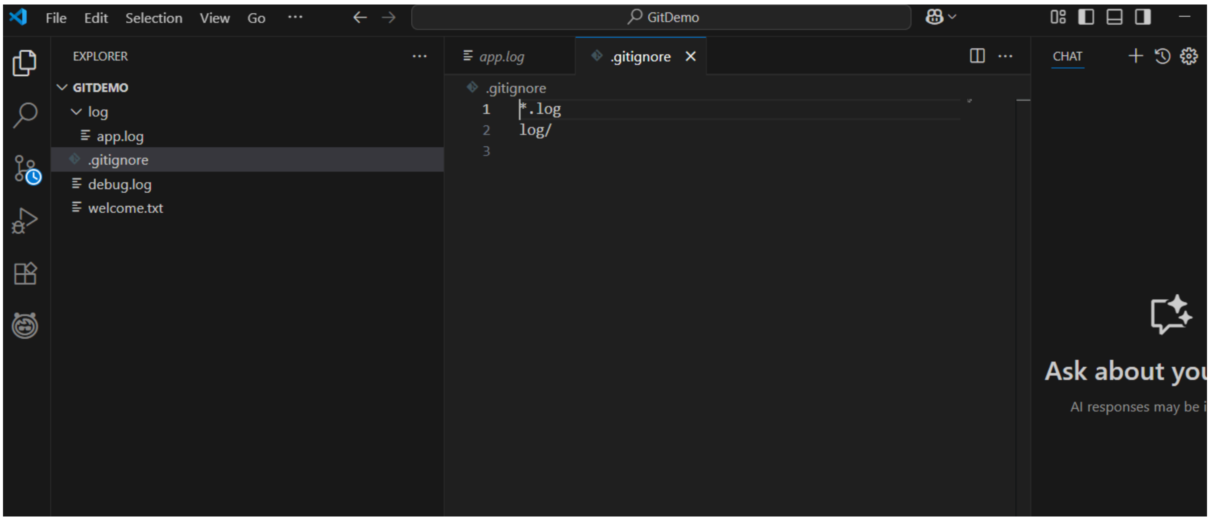


```
C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git status
On branch main
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        .gitignore

nothing added to commit but untracked files present (use "git add" to track)

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>
```

### Committing .gitignore File



```
C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git add .gitignore

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git commit -m "Added .gitignore to ignore log files and folder"
[main 7e1d652] Added .gitignore to ignore log files and folder
 1 file changed, 2 insertions(+)
 create mode 100644 .gitignore

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>
```

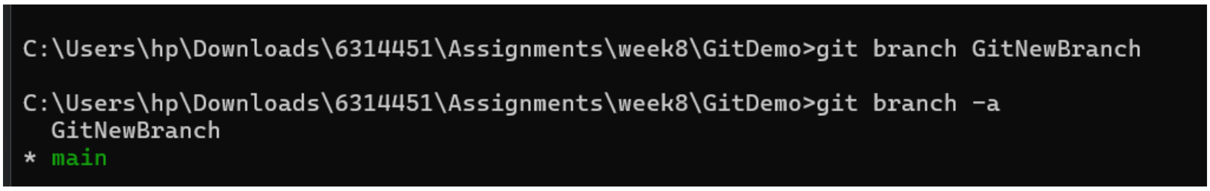


```
*.log
log/
```

# File : 3. Git-HOL.docx

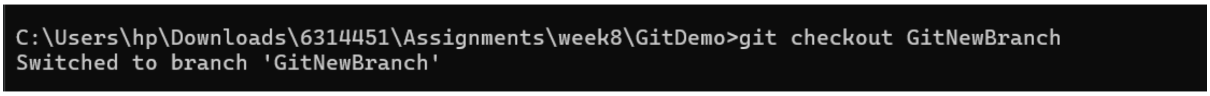
### Exercise : Git Branching and Merging

### Listing Local and Remote Branches



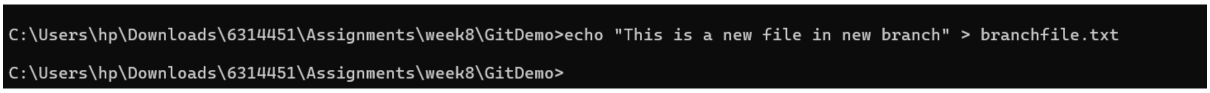
```
C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git branch GitNewBranch

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git branch -a
  GitNewBranch
* main
```

### Switching to New Branch



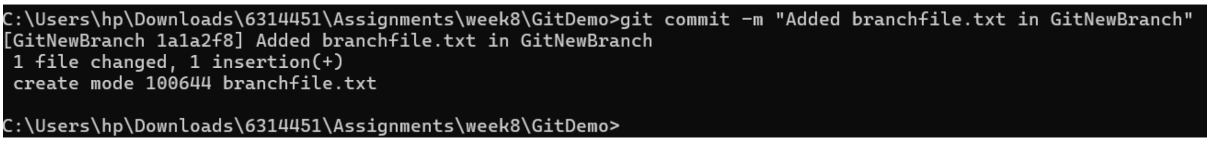
```
C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git checkout GitNewBranch
Switched to branch 'GitNewBranch'
```

### Creating a File in New Branch



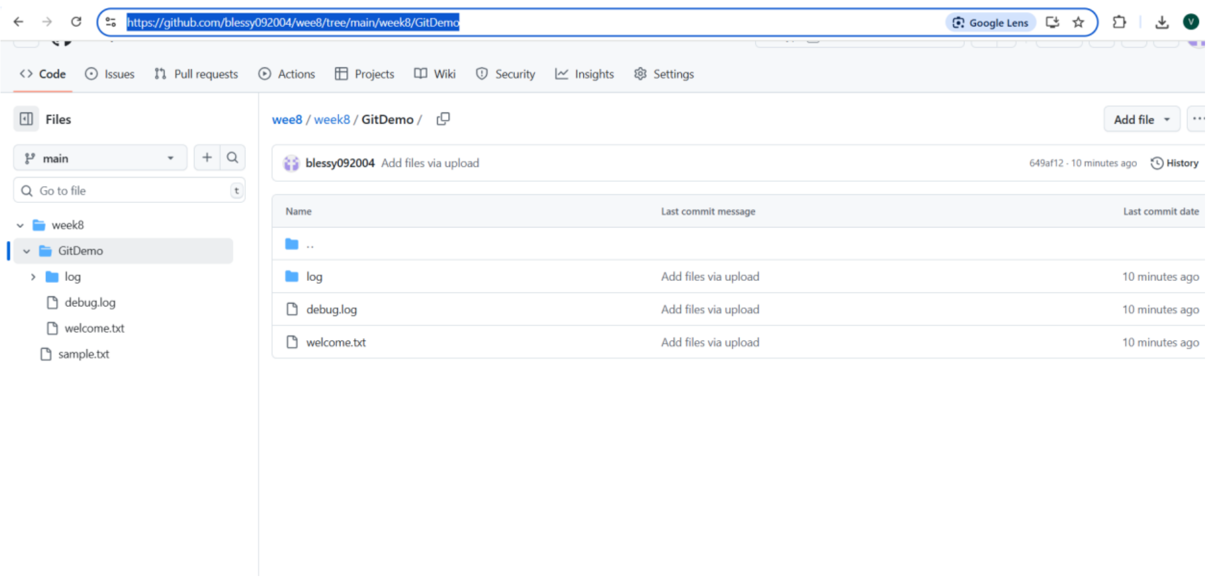
```
C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>echo "This is a new file in new branch" > branchfile.txt

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>
```

### Committing Changes in the Branch



```
C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git commit -m "Added branchfile.txt in GitNewBranch"
[GitNewBranch 1a1a2f8] Added branchfile.txt in GitNewBranch
 1 file changed, 1 insertion(+)
 create mode 100644 branchfile.txt

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>
```

### Pushing Branch to GitLab

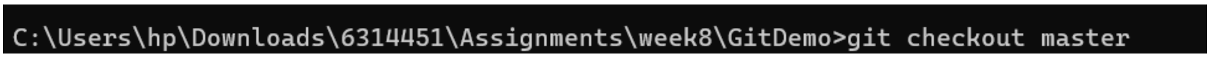


wee8 / week8 / GitDemo /

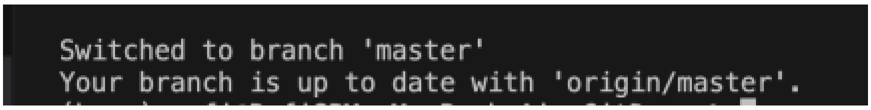
blessy092004 Add files via upload 649af12 · 10 minutes ago

| Name | Last commit message | Last commit date |
|---|---|---|
| .. | | |
| log | Add files via upload | 10 minutes ago |
| debug.log | Add files via upload | 10 minutes ago |
| welcome.txt | Add files via upload | 10 minutes ago |

### Switching Back to Master

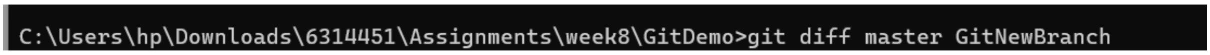


```
C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git checkout master
```

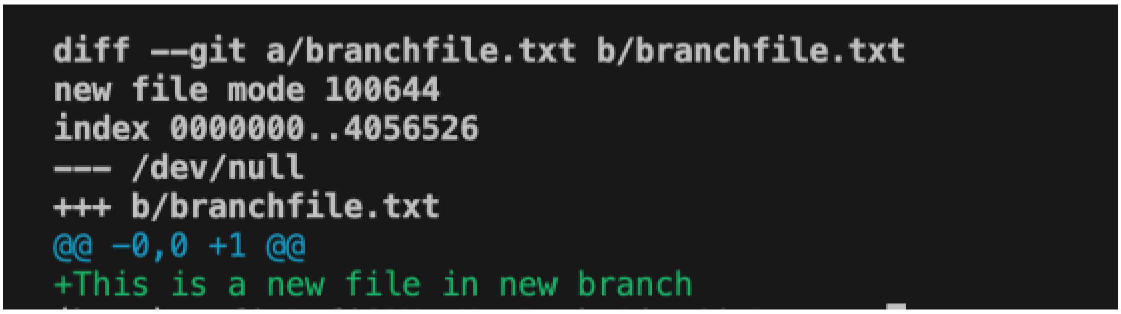


```
Switched to branch 'master'
Your branch is up to date with 'origin/master'.
```

### Viewing CLI Differences Between Branch and Master

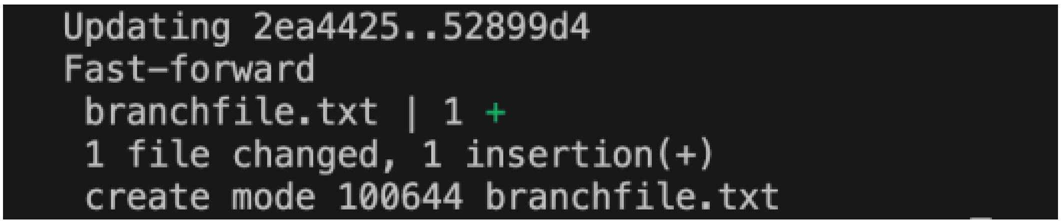


```
C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git diff master GitNewBranch
```



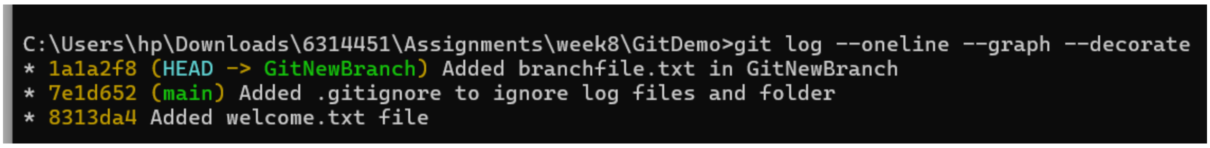
```
diff --git a/branchfile.txt b/branchfile.txt
new file mode 100644
index 0000000..4056526
--- /dev/null
+++ b/branchfile.txt
@@ -0,0 +1 @@
+This is a new file in new branch
```

### Merging Branch into Master



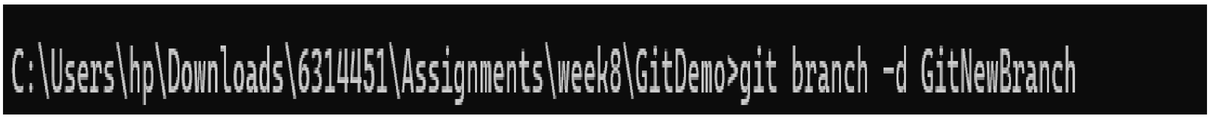
```
Updating 2ea4425..52899d4
Fast-forward
 branchfile.txt | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 branchfile.txt
```

### Viewing Merge History

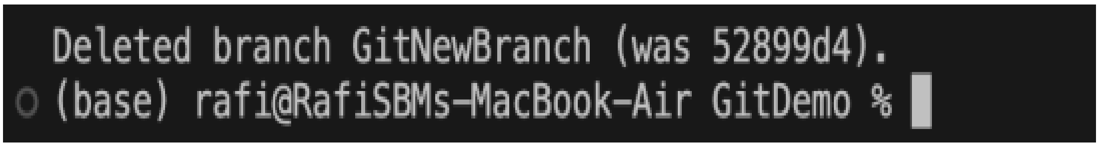


```
C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git log --oneline --graph --decorate
* 1a1a2f8 (HEAD -> GitNewBranch) Added branchfile.txt in GitNewBranch
* 7e1d652 (main) Added .gitignore to ignore log files and folder
* 8313da4 Added welcome.txt file
```

### Deleting Branch After Merge



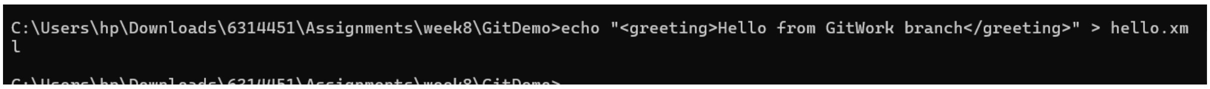
```
C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git branch -d GitNewBranch
```



```
 Deleted branch GitNewBranch (was 52899d4).
○ (base) rafi@RafiSBMs-MacBook-Air GitDemo %
```

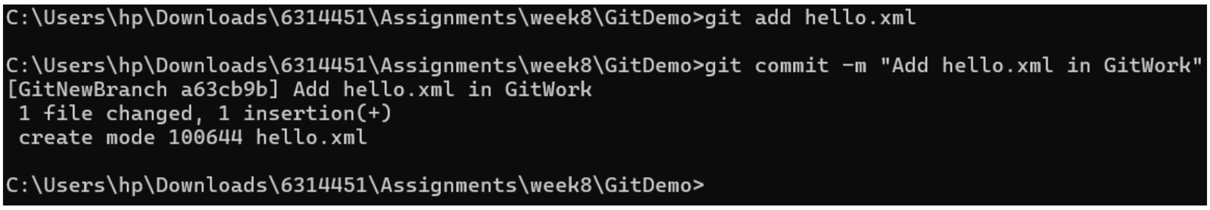
## File : 4. Git-HOL.docx

### Creating hello.xml in GitWork



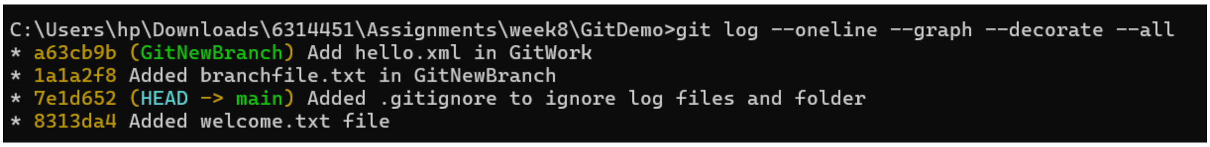
```
C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>echo "<greeting>Hello from GitWork branch</greeting>" > hello.xm
l

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>
```

### Committing hello.xml in GitWork

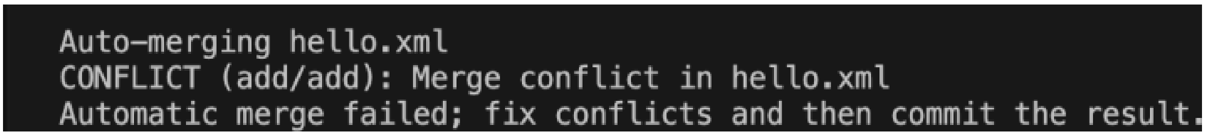


```
C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git add hello.xml

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git commit -m "Add hello.xml in GitWork"
[GitNewBranch a63cb9b] Add hello.xml in GitWork
 1 file changed, 1 insertion(+)
 create mode 100644 hello.xml

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>
```

### Viewing Diverged Branch History

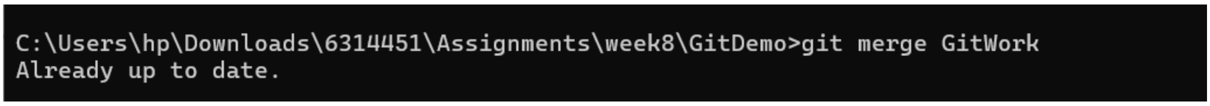


```
C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git log --oneline --graph --decorate --all
* a63cb9b (GitNewBranch) Add hello.xml in GitWork
* 1a1a2f8 Added branchfile.txt in GitNewBranch
* 7e1d652 (HEAD -> main) Added .gitignore to ignore log files and folder
* 8313da4 Added welcome.txt file
```

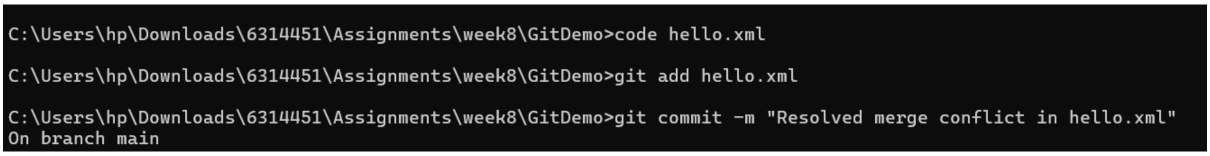


```
Auto-merging hello.xml
CONFLICT (add/add): Merge conflict in hello.xml
Automatic merge failed; fix conflicts and then commit the result.
```

### Merge Conflict Occurs

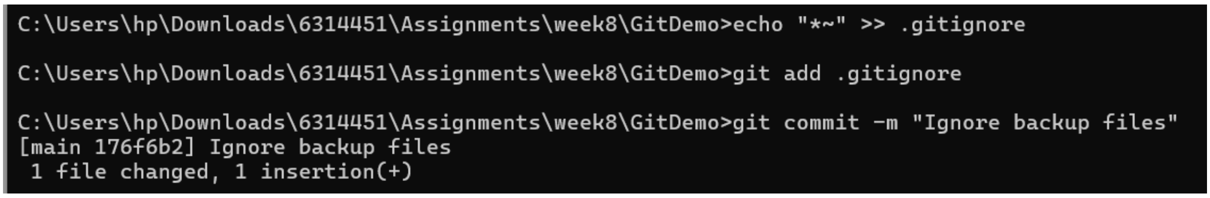


```
C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git merge GitWork
Already up to date.
```



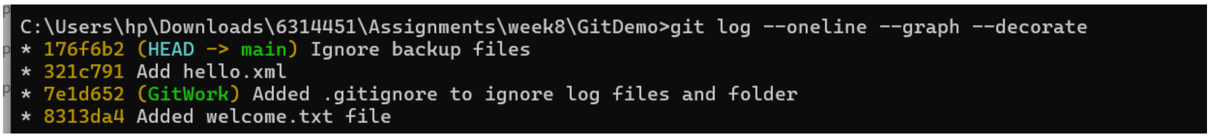
```
C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>code hello.xml

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git add hello.xml

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git commit -m "Resolved merge conflict in hello.xml"
On branch main
```

### Adding Backup File Ignore Rule



```
C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>echo "*~" >> .gitignore

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git add .gitignore

C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git commit -m "Ignore backup files"
[main 176f6b2] Ignore backup files
 1 file changed, 1 insertion(+)
```

### Final Commit History After Merge



```
C:\Users\hp\Downloads\6314451\Assignments\week8\GitDemo>git log --oneline --graph --decorate
* 176f6b2 (HEAD -> main) Ignore backup files
* 321c791 Add hello.xml
* 7e1d652 (GitWork) Added .gitignore to ignore log files and folder
* 8313da4 Added welcome.txt file
```