

# 1. GIT HOL

```
MINGW64:/c/Users/Admin

Admin@DESKTOP-9DG2A56 MINGW64 ~
$ git --version
git version 2.50.1.windows.1

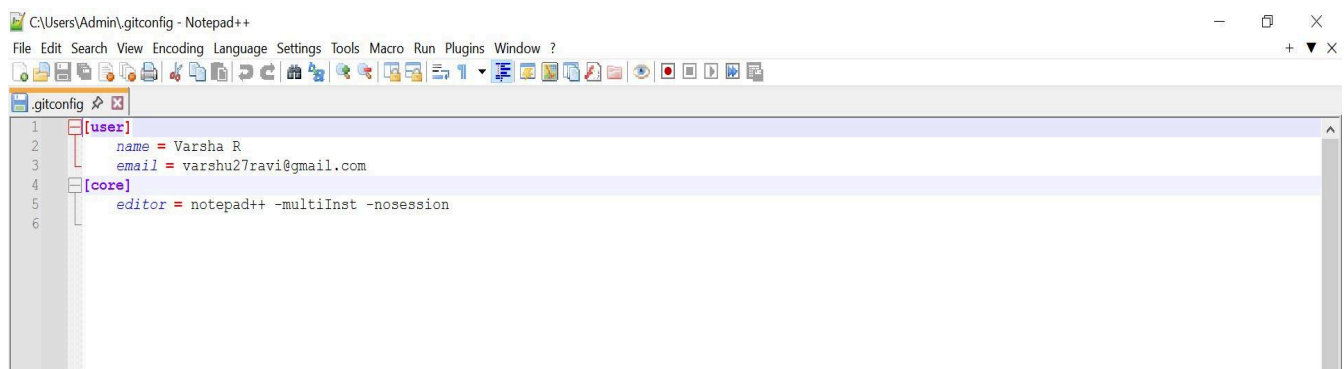
Admin@DESKTOP-9DG2A56 MINGW64 ~
$ git config --global user.name "Varsha R"

Admin@DESKTOP-9DG2A56 MINGW64 ~
$ git config --global user.email "varshu27ravi@gmail.com"

Admin@DESKTOP-9DG2A56 MINGW64 ~
$ git config --global init.defaultBranch master

Admin@DESKTOP-9DG2A56 MINGW64 ~
$ git config --global -l
user.name=Varsha R
user.email=varshu27ravi@gmail.com
core.editor=notepad++ -multiInst -nosession
init.defaultbranch=master

Admin@DESKTOP-9DG2A56 MINGW64 ~
$ |
```



MINGW64:/c/Users/Admin/GitDemo

Admin@DESKTOP-9DG2A56 MINGW64 ~

```
$ notepad++ &  
[1] 29
```

Admin@DESKTOP-9DG2A56 MINGW64 ~

```
$ git config --global core.editor "notepad++ -multiInst -nosession"
```

Admin@DESKTOP-9DG2A56 MINGW64 ~

```
$ git config --global -e  
[1]+  Done notepad++
```

Admin@DESKTOP-9DG2A56 MINGW64 ~

```
$ mkdir GitDemo  
cd GitDemo
```

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo

```
$ git init  
Initialized empty Git repository in C:/Users/Admin/GitDemo/.git/
```

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (master)

```
$ echo "Welcome to Git Hands-on Lab" > welcome.txt
```

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (master)

```
$ ls  
welcome.txt
```

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (master)

```
$ cat welcome.txt  
Welcome to Git Hands-on Lab
```

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (master)

```
$ git status  
On branch master
```

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)

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (master)

```
$ git add welcome.txt  
warning: in the working copy of 'welcome.txt', LF will be replaced by CRLF the n  
ext time Git touches it
```

```

MINGW64:/c/Users/Admin/GitDemo
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)

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (master)
$ git add welcome.txt
warning: in the working copy of 'welcome.txt', LF will be replaced by CRLF the n
ext time Git touches it

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (master)
$ ^C

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (master)
$ git commit -m "Add welcome.txt file"
[master (root-commit) 0bb410d] Add welcome.txt file
 1 file changed, 1 insertion(+)
 create mode 100644 welcome.txt

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (master)
$ ^C

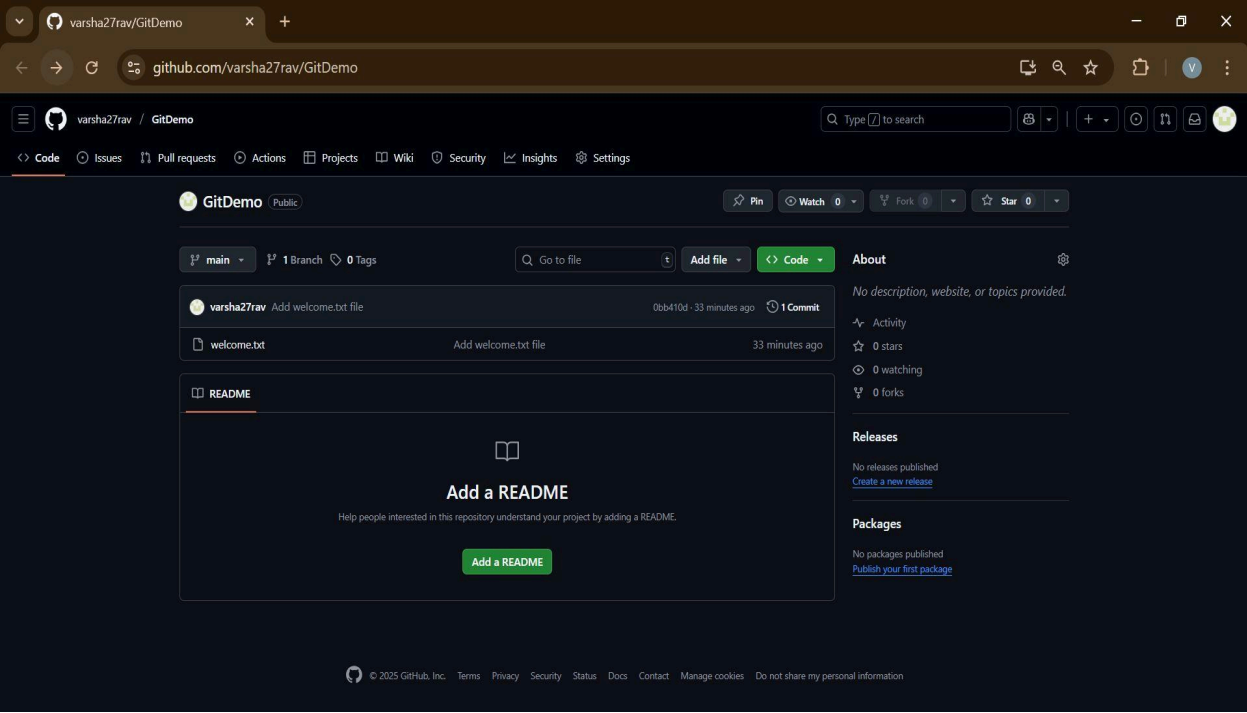
Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (master)
$ git remote add origin https://github.com/varsha27rav/GitDemo.git
git branch -M main
git push -u origin main
info: please complete authentication in your browser...
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 251 bytes | 125.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/varsha27rav/GitDemo.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ ^C

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ git pull origin main
From https://github.com/varsha27rav/GitDemo
 * branch            main       -> FETCH_HEAD
Already up to date.

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ |

```



## 2 . GIT HOL

```
MINGW64:/c/Users/Admin/GitDemo

Admin@DESKTOP-9DG2A56 MINGW64 ~
$ cd ~/GitDemo

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ ^C

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ echo "debug log entry" > debug.log
mkdir log
echo "server started" > log/server.log

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ git status --short
?? debug.log
?? log/

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ ^C

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ notepad++ .gitignore &
[1] 531

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ ^[[200~git check-ignore -v debug.log
bash: $'\E[200~git': command not found
[1]+  Done                  notepad++ .gitignore

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ git check-ignore -v debug.log
.gitignore:1:*.log      debug.log

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ git check-ignore -v log/server/server.io
.gitignore:2:log/      log/server/server.io

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ ^C

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ ^C

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ ^[[200~git add .gitignore
bash: $'\E[200~git': command not found

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ git commit -m "Add .gitignore to ignore log files and log/
```



MINGW64:/c/Users/Admin/GitDemo

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)

```
$ git commit -m "Add .gitignore to ignore log files and log/
folder"
```

On branch main

Your branch is up to date with 'origin/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)

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)

```
$ git push
```

Everything up-to-date

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)

```
$ ^C
```

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)

```
$ git add .gitignore
```

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)

```
$ git commit -m "Add .gitignore to ignore log files and log/
folder"
```

[main 8e74e74] Add .gitignore to ignore log files and log/ folder

1 file changed, 2 insertions(+)  
create mode 100644 .gitignore

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)

```
$ git push
```

Enumerating objects: 4, done.

Counting objects: 100% (4/4), done.

Delta compression using up to 4 threads

Compressing objects: 100% (2/2), done.

Writing objects: 100% (3/3), 313 bytes | 156.00 KiB/s, done.

Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)

To https://github.com/varsha27rav/GitDemo.git

0bb410d..8e74e74 main -> main

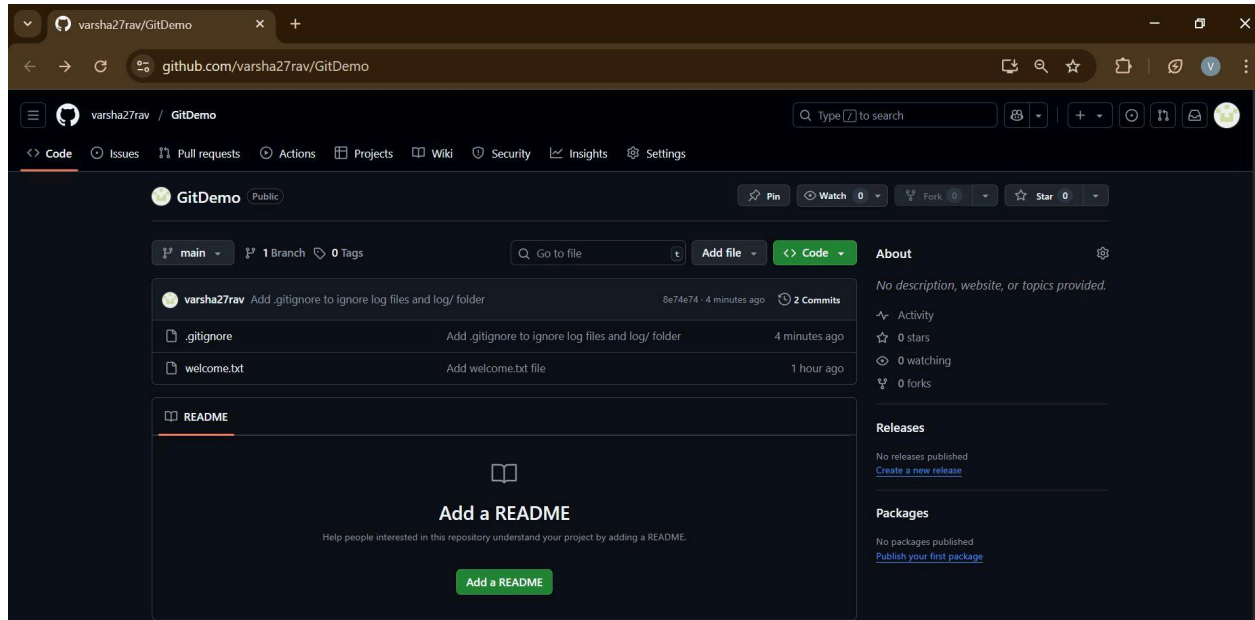
Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)

```
$ ^C
```

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)

```
$ ^C
```

# OUTPUT :



### 3.GIT HOL

```
MINGW64:/c/Users/Admin/GitDemo

Admin@DESKTOP-9DG2A56 MINGW64 ~
$ cd ~/GitDemo

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ git branch
  GitNewBranch
* main

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ git push -u origin GitNewBranch
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 366 bytes | 73.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: Create a pull request for 'GitNewBranch' on GitHub by visiting:
remote:   https://github.com/varsha27rav/GitDemo/pull/new/GitNewBranch
remote:
To https://github.com/varsha27rav/GitDemo.git
 * [new branch]      GitNewBranch -> GitNewBranch
branch 'GitNewBranch' set up to track 'origin/GitNewBranch'.

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ git checkout main
Already on 'main'
Your branch is up to date with 'origin/main'.

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ git pull origin main
remote: Enumerating objects: 1, done.
remote: Counting objects: 100% (1/1), done.
remote: Total 1 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (1/1), 902 bytes | 50.00 KiB/s, done.
From https://github.com/varsha27rav/GitDemo
 * branch            main       -> FETCH_HEAD
   8e74e74..d1f1da1  main       -> origin/main
Updating 8e74e74..d1f1da1
Fast-forward
 newfile.txt | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 newfile.txt

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ git branch -d GitNewBranch
Deleted branch GitNewBranch (was cf11a8b).
```



```

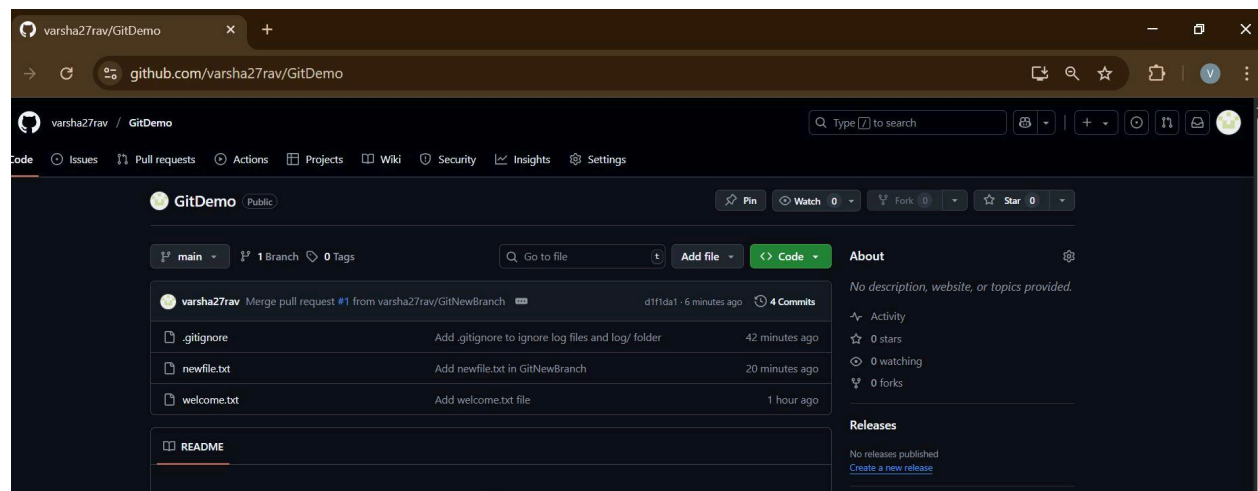
Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ git branch -d GitNewBranch
Deleted branch GitNewBranch (was cf11a8b).

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ git log --oneline --graph --decorate
* d1f1da1 (HEAD -> main, origin/main) Merge pull request
#1 from varsha27rav/GitNewBranch
|
| * cf11a8b (origin/GitNewBranch) Add newfile.txt in GitNew
| Branch
|/
* 8e74e74 Add .gitignore to ignore log files and log/ folder
* 0bb410d Add welcome.txt file

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ ^C

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ |

```



## 4 . GIT HOL

```
MINGW64:/c/Users/Admin/GitDemo

Admin@DESKTOP-9DG2A56 MINGW64 ~
$ cd ~/GitDemo

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ git checkout -b GitWork
Switched to a new branch 'GitWork'

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (GitWork)
$ echo "<greeting>Hello from GitWork branch</greeting>" > hello.xml

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (GitWork)
$ git add hello.xml
warning: in the working copy of 'hello.xml', LF will be replaced by CRLF the next time Git touches it

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (GitWork)
$ git commit -m "Add hello.xml in GitWork branch"
[GitWork db9f3c8] Add hello.xml in GitWork branch
1 file changed, 1 insertion(+)
create mode 100644 hello.xml

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (GitWork)
$ ^C

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (GitWork)
$ echo "<greeting>Updated content in GitWork branch</greeting>" > hello.xml

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (GitWork)
$ git add hello.xml
warning: in the working copy of 'hello.xml', LF will be replaced by CRLF the next time Git touches it

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (GitWork)
$ git commit -m "Update hello.xml in GitWork branch"
[GitWork e495fd3] Update hello.xml in GitWork branch
1 file changed, 1 insertion(+), 1 deletion(-)

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (GitWork)
$ ^C

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (GitWork)
$ git checkout main
Switched to branch 'main'
Your branch is ahead of 'origin/main' by 7 commits.
(use "git push" to publish your local commits)

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ echo "<greeting>Hello from main branch</greeting>" > hello.xml
```

```
MINGW64:/c/Users/Admin/GitDemo
Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ echo "<greeting>Hello from main branch</greeting>" > hello.xml

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ git add hello.xml
warning: in the working copy of 'hello.xml', LF will be replaced by CRLF the next time Git touches it

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ git commit -m "Add hello.xml in main branch with different content"
[main 49a6bc8] Add hello.xml in main branch with different content
1 file changed, 1 insertion(+)
create mode 100644 hello.xml

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ ^C

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ 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.

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main|MERGING)
$ ^C

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main|MERGING)
$ notepad hello.xml

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main|MERGING)
$ git add hello.xml

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main|MERGING)
$ git commit
[main e918d90] Merge branch 'GitWork'

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ :wq
bash: :wq: command not found

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ :wq
bash: :wq: command not found

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ ^C

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ echo "*.bak" >> .gitignore
```

```

MINGW64:/c/Users/Admin/GitDemo
Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ ^C

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ echo "*.bak" >> .gitignore

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ git add .gitignore
warning: in the working copy of '.gitignore', LF will be replaced by CRLF the ne
xt time Git touches it

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ git commit -m "Ignore merge backup files"
[main ae2ba2b] Ignore merge backup files
1 file changed, 1 insertion(+)

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ git branch -d GitWork
Deleted branch GitWork (was e495fd3).

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ git log --oneline --graph --decorate
* ae2ba2b (HEAD -> main) Ignore merge backup files
* e918d90 Merge branch 'GitWork'
|
| * e495fd3 Update hello.xml in GitWork branch
| * db9f3c8 Add hello.xml in GitWork branch
| * | 49a6bc8 Add hello.xml in main branch with different content
|/
* c9805ab Clean start for conflict resolution lab
* d69b59a Add backup files to .gitignore
* 63b3e21 Resolved merge conflict in hello.xml
|
| * a697fa1 Add hello.xml in GitWork branch
| * | be70b46 Add hello.xml in main branch with different content
|/
* 8fd097f Remove hello.xml for clean start
* f45850b Add hello.xml in GitWork branch
* d1f1da1 (origin/main) Merge pull request #1 from varsha27rav/GitNewBranch
|
| * cf11a8b (origin/GitNewBranch) Add newfile.txt in GitNewBranch
|/
* 8e74e74 Add .gitignore to ignore log files and log/ folder
* 0bb410d Add welcome.txt file

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ ^C

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)

```

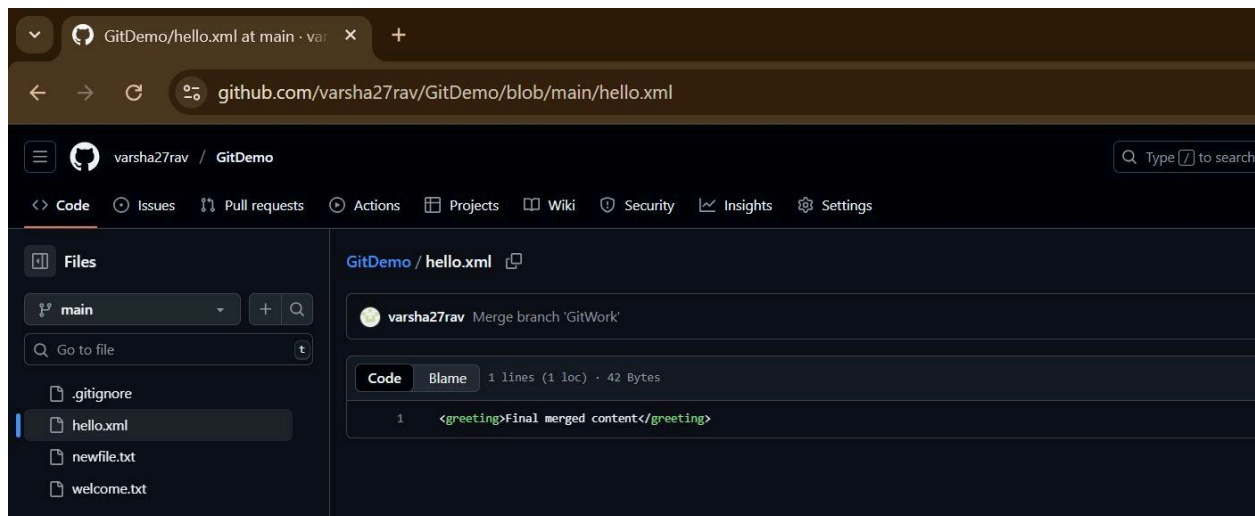
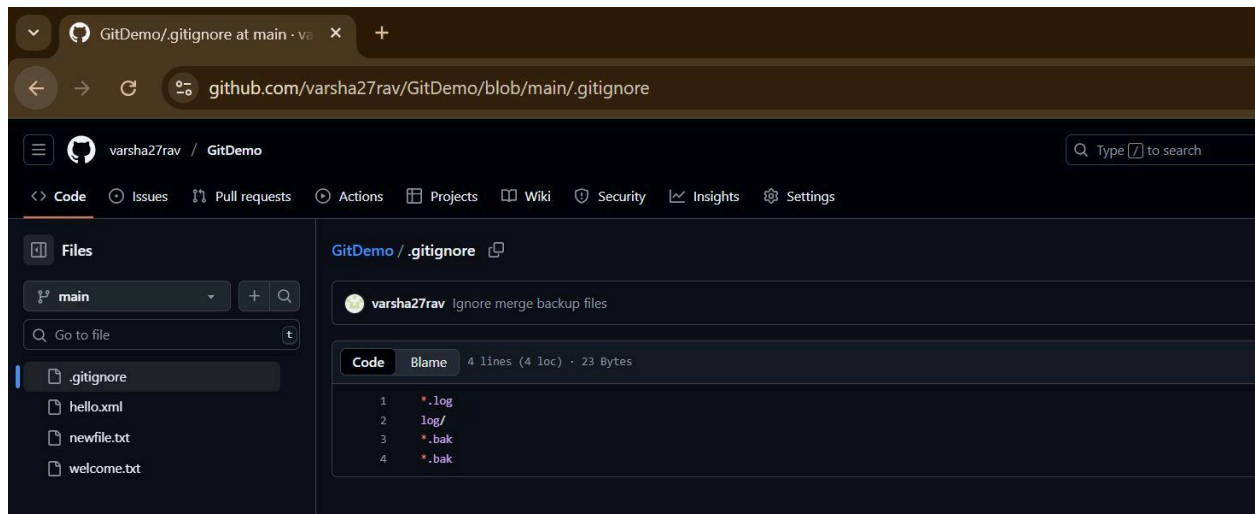
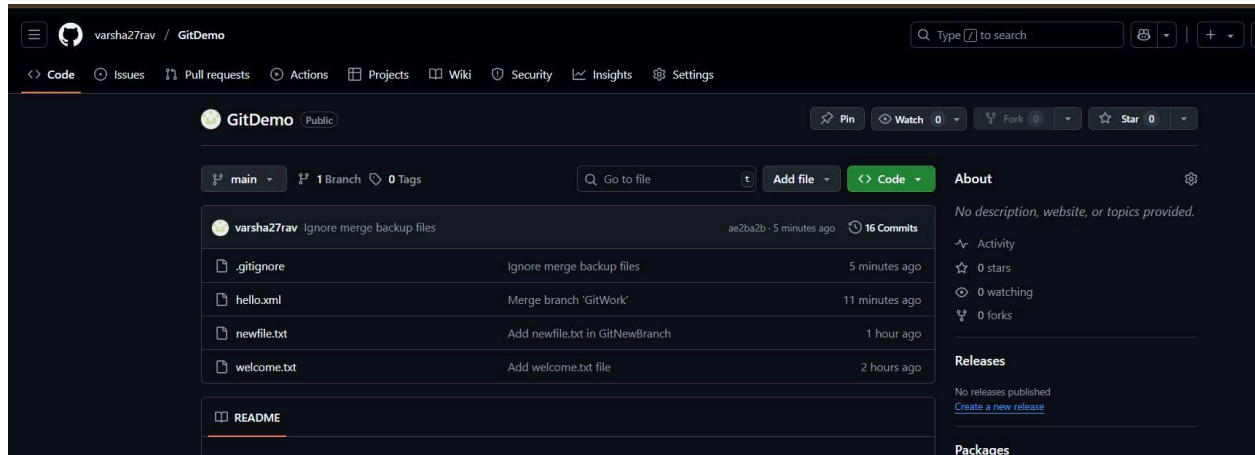


```
Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ git push origin main
Enumerating objects: 31, done.
Counting objects: 100% (31/31), done.
Delta compression using up to 4 threads
Compressing objects: 100% (24/24), done.
Writing objects: 100% (29/29), 2.88 KiB | 226.00 KiB/s, done.
Total 29 (delta 10), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (10/10), done.
To https://github.com/varsha27rav/GitDemo.git
   d1f1da1..ae2ba2b  main -> main

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ |
```



# OUTPUT :



## 5. GIT HOL

```
MINGW64:/c/Users/Admin/GitDemo

Admin@DESKTOP-9DG2A56 MINGW64 ~
$ cd ~/GitDemo

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ git checkout main
Already on 'main'
Your branch is up to date with 'origin/main'.

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ ^C

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ echo "This is for Git-T03-HOL_002 lab" > hol002.txt

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ git add hol002
fatal: pathspec 'hol002' did not match any files

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ ^C

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ git add hol002.txt
warning: in the working copy of 'hol002.txt', LF will be replaced by CRLF the ne
xt time Git touches it

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ git commit -m "Add hol002.txt for Git-T03-HOL_002 lab"
[main 3d0f725] Add hol002.txt for Git-T03-HOL_002 lab
1 file changed, 1 insertion(+)
create mode 100644 hol002.txt

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ git push origin main
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 327 bytes | 163.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
```

```

MINGW64:/c/Users/Admin/GitDemo
$ git push origin main
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 327 bytes | 163.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/varsha27rav/GitDemo.git
   ae2ba2b..3d0f725  main -> main

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ ^C

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ git log --oneline --graph --decorate -n 10
* 3d0f725 (HEAD -> main, origin/main) Add hol002.txt for Git-T03-HOL_002 lab
* ae2ba2b Ignore merge backup files
* e918d90 Merge branch 'GitWork'
|
| * e495fd3 Update hello.xml in Gitwork branch
| * db9f3c8 Add hello.xml in Gitwork branch
| * | 49a6bc8 Add hello.xml in main branch with different content
|/
* c9805ab Clean start for conflict resolution lab
* d69b59a Add backup files to .gitignore
* 63b3e21 Resolved merge conflict in hello.xml
|
| * a697fa1 Add hello.xml in Gitwork branch

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ ^C

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ cat hol002.txt
This is for Git-T03-HOL_002 lab

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ ^C

Admin@DESKTOP-9DG2A56 MINGW64 ~/GitDemo (main)
$ |

```

## OUTPUT :

