**Exercise 1  
Commands & Outputs**

SHYAM@LAPTOP-1NP95L6NMINGW64 ~

$ git version

git version 2.50.1.windows.1

SHYAM@LAPTOP-1NP95L6NMINGW64 ~

$ git config --global user.name "Shyam-04"

SHYAM@LAPTOP-1NP95L6NMINGW64 ~

$ git config --global user.email "shyamganesh004@gmail.com"

SHYAM@LAPTOP-1NP95L6NMINGW64 ~

$ git config --global --list

user.name=Shyam-04

[user.email=shyamganesh004@gmail.com](mailto:user.email=jaffronjs2004@gmail.com)

SHYAM@LAPTOP-1NP95L6NMINGW64 ~

$ alias notepad

SHYAM@LAPTOP-1NP95L6NMINGW64 ~

$ alias notepad='/c/Program\ Files/Notepad++/notepad++.exe &'

SHYAM@LAPTOP-1NP95L6NMINGW64 ~

$ notepad

[1] 1503

SHYAM@LAPTOP-1NP95L6NMINGW64 ~

$ notepad ~/.bashrc

SHYAM@LAPTOP-1NP95L6NMINGW64 ~

$ git init

Initialized empty Git repository in C:/Users/SHYAM/.git/

SHYAM@LAPTOP-1NP95L6NMINGW64 ~ (master)

$ git status

On branch master

No commits yet

Untracked files:

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

SHYAM@LAPTOP-1NP95L6NMINGW64 ~ (master)

$ git add welcome.txt

warning: in the working copy of 'welcome.txt', LF will be replaced by CRLF the next time Git touches it

No commits yet

Changes to be committed:

(use "git rm --cached <file>..." to unstage)

new file: welcome.txt

Untracked files:

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

SHYAM@LAPTOP-1NP95L6NMINGW64 ~ (master)

$ git clone https://gitlab.com/shyam-04-group/gitdemo

Cloning into 'gitdemo'...

info: please complete authentication in your browser...

warning: redirecting to https://gitlab.com/shyam-04-group/gitdemo.git/

remote: Enumerating objects: 3, done.

remote: Counting objects: 100% (3/3), done.

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

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

Receiving objects: 100% (3/3), done.

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/gitdemo (main)

$ git commit -m "Added welcome.txt"

[main 5e058f4] Added welcome.txt

1 file changed, 1 insertion(+)

create mode 100644 welcome.txt

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/gitdemo (main)

$ git push origin main

warning: redirecting to https://gitlab.com/shyam-04-group/gitdemo.git/

Enumerating objects: 4, done.

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

Delta compression using up to 12 threads

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

Writing objects: 100% (3/3), 314 bytes | 314.00 KiB/s, done.

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

To https://gitlab.com/shyam-04-group/gitdemo

fa7523b..5e058f4 main -> main

**Exercise 2  
Commands & outputs**

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/gitdemo (main)

$ cd ~/gitdemo

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/gitdemo (main)

$ touch error.log

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/gitdemo (main)

$ mkdir log

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/gitdemo (main)

$ touch log/debug.log

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/gitdemo (main)

$ touch .gitignore

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/gitdemo (main)

$ notepadpp .gitignore

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/gitdemo (main)

$ git status

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)

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/gitdemo (main)

$ git add .gitignore

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/gitdemo (main)

$ git commit -m "Add .gitignore to log files and folders"

[main 4b2d907] Add .gitignore to log files and folders

1 file changed, 2 insertions(+)

create mode 100644 .gitignore

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/gitdemo (main)

$ git status

On branch main

Your branch is ahead of 'origin/main' by 1 commit.

(use "git push" to publish your local commits)

nothing to commit, working tree clean

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/gitdemo (main)

$ git add .gitignore

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/gitdemo (main)

$ git commit -m "added .gitignore file"

On branch main

Your branch is ahead of 'origin/main' by 1 commit.

(use "git push" to publish your local commits)

nothing to commit, working tree clean

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/gitdemo (main)

$ git push

warning: redirecting to https://gitlab.com/shyam-04-group/gitdemo.git/

Enumerating objects: 4, done.

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

Delta compression using up to 12 threads

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

Writing objects: 100% (3/3), 338 bytes | 338.00 KiB/s, done.

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

To https://gitlab.com/shyam-04-group/gitdemo

5e058f4..4b2d907 main -> main

**Exercise 3   
Commands & Outputs**

SHYAM@LAPTOP-1NP95L6NMINGW64 ~ (master)  
$ mkdir GitlabHandson

SHYAM@LAPTOP-1NP95L6NMINGW64 ~ (master)

$ cd GitlabHandson

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

$ git init

Initialized empty Git repository in C:/Users/SHYAM/GitlabHandson/.git/

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

$ echo "Initial commit file" > init.txt

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

$ git add init.txt

warning: in the working copy of 'init.txt', LF will be replaced by CRLF the next time Git touches it

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

$ git commit -m "Initial commit"

[master (root-commit) 6f53aad] Initial commit

1 file changed, 1 insertion(+)

create mode 100644 init.txt

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

$ git branch GitnewBranch

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

$ git checkout GitnewBranch

Switched to branch 'GitnewBranch'

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (GitnewBranch)

$ git branch

\* GitnewBranch

master

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (GitnewBranch)

$ echo "This is a new feature"> feature.txt

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (GitnewBranch)

$ git add feature.txt

warning: in the working copy of 'feature.txt', LF will be replaced by CRLF the next time Git touches it

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (GitnewBranch)

$ git commit -m "Added feature.txt with content"

[GitnewBranch 3904cea] Added feature.txt with content

1 file changed, 1 insertion(+)

create mode 100644 feature.txt

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (GitnewBranch)

$ git status

On branch GitnewBranch

nothing to commit, working tree clean

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (GitnewBranch)

$ git checkout master

Switched to branch 'master'

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

$ git diff GitnewBranch

**diff --git a/feature.txt b/feature.txt**

**deleted file mode 100644**

**index 48af23d..0000000**

**--- a/feature.txt**

**+++ /dev/null**

@@ -1 +0,0 @@

-This is a new feature

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

$ git difftool master GitnewBranch

Viewing (1/1): 'feature.txt'

Launch 'p4merge' [Y/n]? Y

The diff tool p4merge is not available as 'p4merge'

fatal: external diff died, stopping at feature.txt

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

$ git config --global diff.tool p4merge

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

$ git config --global merge.tool p4merge

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

$ git merge GitnewBranch

Updating 6f53aad..3904cea

Fast-forward

feature.txt | 1 +

1 file changed, 1 insertion(+)

create mode 100644 feature.txt

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

$ git log --online --graph --decorate

fatal: unrecognized argument: --online

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

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

\* 3904cea (**HEAD** -> **master**, **GitnewBranch**) Added feature.txt with content

\* 6f53aad Initial commit

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

$ git branch -d GitnewBranch

Deleted branch GitnewBranch (was 3904cea).

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

$ git status

On branch master

nothing to commit, working tree clean

**Exercise 4  
Commands & Outputs**

SHYAM@LAPTOP-1NP95L6NMINGW64 ~ (master)

$ git config --global diff.tool p4merge

SHYAM@LAPTOP-1NP95L6NMINGW64 ~ (master)

$ git config --global difftool.p4merge.cmd '"C:/Program Files/Perforce/p4merge.exe" "$LOCAL" "$REMOTE"'

SHYAM@LAPTOP-1NP95L6NMINGW64 ~ (master)

$ git config --global merge.tool p4merge

SHYAM@LAPTOP-1NP95L6NMINGW64 ~ (master)

$ git config --global mergetool.p4merge.cmd '"C:/Program Files/Perforce/p4merge.exe" "$BASE" "$LOCAL" "$REMOTE" "$MERGED"'

SHYAM@LAPTOP-1NP95L6NMINGW64 ~ (master)

$ git config --global mergetool.p4merge.trustExitCode false

SHYAM@LAPTOP-1NP95L6NMINGW64 ~ (master)

$ cd GitlabHandson

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

$ git status

On branch master

nothing to commit, working tree clean

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

$ git checkout -b GitWork

Switched to a new branch 'GitWork'

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (GitWork)

$ echo "<greet> Hello from Gitwork branch</greet>" > hello.xml

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (GitWork)

$ echo "<update> Updated in Gitwork</update>" >> hello.xml

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (GitWork)

$ git status

On branch GitWork

Untracked files:

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

hello.xml

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

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (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

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (GitWork)

$ git commit -m "Updated hello.xml in gitwork"

[GitWork fb933e6] Updated hello.xml in gitwork

1 file changed, 2 insertions(+)

create mode 100644 hello.xml

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (GitWork)

$ git checkout master

Switched to branch 'master'

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

$ echo "<greet> Hello this is greeting from master</greet>" >hello.xml

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

$ git add hello.xml

warning: in the working copy of 'hello.xml', LF will be replaced by CRLF the next time Git touches it

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

$ git commit -m "Added hello.xml in master"

[master 2137088] Added hello.xml in master

1 file changed, 1 insertion(+)

create mode 100644 hello.xml

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

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

\* 2137088 (**HEAD** -> **master**) Added hello.xml in master

| \* fb933e6 (**GitWork**) Updated hello.xml in gitwork

|/

\* 3904cea Added feature.txt with content

\* 6f53aad Initial commit

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

$ git diff Gitwork

**diff --git a/hello.xml b/hello.xml**

**index 9ea5342..378e168 100644**

**--- a/hello.xml**

**+++ b/hello.xml**

@@ -1,2 +1 @@

-<greet> Hello from Gitwork branch</greet>

-<update> Updated in Gitwork</update>

+<greet> Hello this is greeting from master</greet>

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

$ git difftool Gitwork

Viewing (1/1): 'hello.xml'

Launch 'p4merge' [Y/n]? Y

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (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.

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master|MERGING)

$ git status

On branch master

You have unmerged paths.

(fix conflicts and run "git commit")

(use "git merge --abort" to abort the merge)

Unmerged paths:

(use "git add <file>..." to mark resolution)

both added: hello.xml

no changes added to commit (use "git add" and/or "git commit -a")

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master|MERGING)

$ git mergetool

Merging:

hello.xml

Normal merge conflict for 'hello.xml':

{local}: created file

{remote}: created file

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master|MERGING)

$ git commit -m 'resolved merge conflict in hello.xml'

[master f0c9869] resolved merge conflict in hello.xml

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

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

On branch master

Untracked files:

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

hello.xml.orig

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

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

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

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

$ git add .gitignore

warning: in the working copy of '.gitignore', LF will be replaced by CRLF the next time Git touches it

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

$ git commit -m "Ignored backup files from merge conflicts"

[master 9be4070] Ignored backup files from merge conflicts

1 file changed, 1 insertion(+)

create mode 100644 .gitignore

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

$ git branch

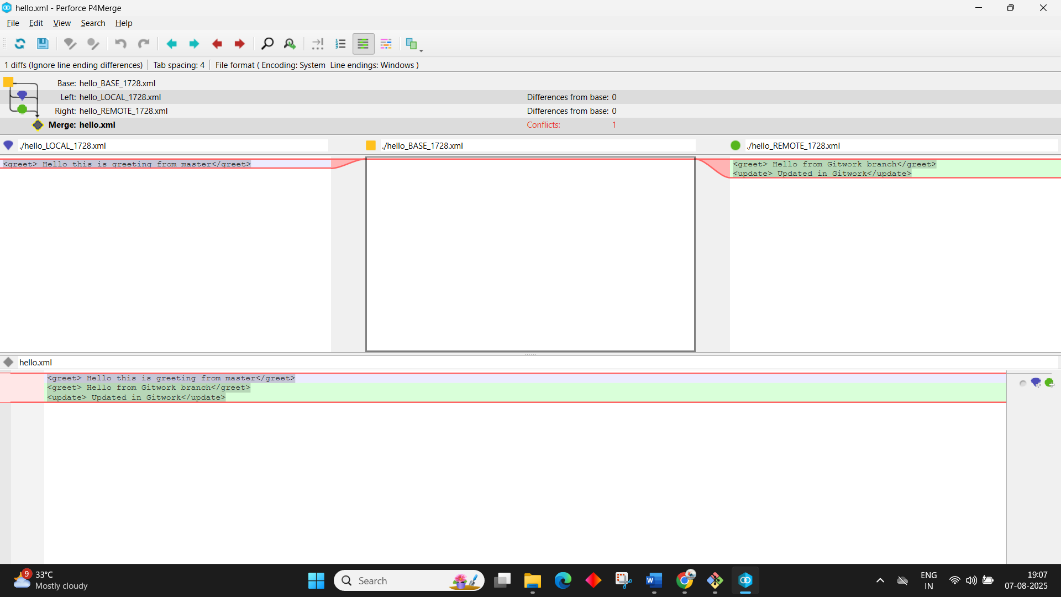
GitWork

\* master

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/GitlabHandson (master)

$ git branch -d GitWork

Deleted branch GitWork (was fb933e6).



A screenshot of a computer

AI-generated content may be incorrect.

**Exercise 5  
Commands & Ouputs**

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/gitdemo (main)

$ git status

On branch main

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

nothing to commit, working tree clean

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/gitdemo (main)

$ git branch -a

\* main

remotes/origin/HEAD -> origin/main

remotes/origin/main

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/gitdemo (main)

$ git pull origin main

warning: redirecting to https://gitlab.com/shyam-04-group/gitdemo.git/

From https://gitlab.com/shyam-04-group/gitdemo

\* branch main -> FETCH\_HEAD

Already up to date.

SHYAM@LAPTOP-1NP95L6NMINGW64 ~/gitdemo (main)

$ git log

commit 4b2d907a22ba788962582bdbe9b3fd53275d9ece (**HEAD** -> **main**, **origin/main**, **origin/HEAD**)

Author: Shyam-04 <shyamganesh004@gmail.com>

Date: Thu Aug 7 11:15:07 2025 +0530

Add .gitignore to log files and folders

commit 5e058f403ed864fcb3bd9370c4d3dc189a6c8a34

Author: shyam-04 <shyamganesh004@gmail.com>

Date: Thu Aug 7 10:22:52 2025 +0530

Added welcome.txt

commit fa7523bff63a08ec4da59ee269a30673d7b565b5

Author: shyam-04 <shyamganesh004@gmail.com>

Date: Thu Aug 7 03:50:32 2025 +0000

Initial commit