

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama”, Machhe, Belagavi, Karnataka-590018



Lab Experiment Record

Project Management with Git [BCSL358C]

Submitted in partial fulfillment towards AEC of 3rd semester of

Bachelor of Engineering

in

Computer Science and Engineering

(Artificial Intelligence & Machine Learning)

Submitted by

HARINI NAYAKA GM

4GW24CI014



DEPARTMENT OF CSE (Artificial Intelligence & Machine Learning)

GSSS INSTITUTE OF ENGINEERING & TECHNOLOGY FOR WOMEN

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi & Govt. of Karnataka)

K.R.SROAD,METAGALLI,MYSUR,570016,

(Accredited by NAAC)

2025-2026

1. Setting up basic commands.

Initialize a new GIT repository in a directory. Create a new file and add it to the staging area and

commit changes with an appropriate commit message.

Commands:

- git init
- git add . (To add all the files)
- git add new_file.txt (To add a specific file.)
- git commit -m "Add new_file.txt with initial content"
- git remote add origin <link>
- git branch
- git branch -M main
- git push origin main

```
GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (master)
$ nano 1.txt

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (master)
$ git add 1.txt
warning: in the working copy of '1.txt', LF will be replaced by CRLF the next time
Git touches it

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (master)
$ git commit -m "file 1"
[master (root-commit) ef2a640] file 1
 1 file changed, 1 insertion(+)
 create mode 100644 1.txt

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (master)
$ git log
commit ef2a6402167bf82272b457753faa9676c76c6874 (HEAD -> master)
Author: harini nayaka gm <gmharininayak@gmail.com>
Date:   Tue Jan 6 10:08:18 2026 +0530

    file 1
```

2. Creating and managing branches.

Create a new branch named “feature-branch”. Switch to the “master” branch. Merge the feature

branch into master.

- git checkout master
- git checkout -b feature-branch
- git add .
- git commit -m "message"
- git checkout master
- git merge feature-branch

```
GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (master)
$ git checkout -b feature-branch
Switched to a new branch 'feature-branch'

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (feature-branch)
$ git branch
* feature-branch
  master

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (feature-branch)
$ nano 2.txt

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (feature-branch)
$ git add 2.txt
warning: in the working copy of '2.txt', LF will be replaced by CRLF the next time
Git touches it

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (feature-branch)
$ git commit -m "2 file"
[feature-branch 665694a] 2 file
 1 file changed, 1 insertion(+)
 create mode 100644 2.txt

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (feature-branch)
$ git log
```

Activate Windows
Go to Settings to activate Windows.

```
$ git log
commit 665694aa8db03f3c2e1250f22bdfb960933e4021 (HEAD -> feature-branch)
Author: harini nayaka gm <gmharininayak@gmail.com>
Date: Tue Jan 6 10:12:33 2026 +0530

    2 file

commit ef2a6402167bf82272b457753faa9676c76c6874 (master)
Author: harini nayaka gm <gmharininayak@gmail.com>
Date: Tue Jan 6 10:08:18 2026 +0530

    file 1

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (feature-branch)
$ git checkout master
Switched to branch 'master'

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (master)
$ git merge feature-branch
Updating ef2a640..665694a
Fast-forward
 2.txt | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 2.txt

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (feature-branch)
$ git checkout master
Switched to branch 'master'

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (master)
$ git merge feature-branch
Updating ef2a640..665694a
Fast-forward
 2.txt | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 2.txt

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (master)
$ git log
commit 665694aa8db03f3c2e1250f22bdfb960933e4021 (HEAD -> master, feature-branch)
Author: harini nayaka gm <gmharininayak@gmail.com>
Date: Tue Jan 6 10:12:33 2026 +0530

    2 file

commit ef2a6402167bf82272b457753faa9676c76c6874
Author: harini nayaka gm <gmharininayak@gmail.com>
Date: Tue Jan 6 10:08:18 2026 +0530
```

Activate Windows
Go to Settings to activate Windows.

Experiment 3.

Creating and Managing Branches

Write the commands to stash your changes, switch branches, and then apply the stashed changes.

- git stash save "Your stash message"

```
•git checkout target-branch
```

```
•git stash apply
```

```
GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (master)
$ nano 3.txt

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (master)
$ git add 3.txt
warning: in the working copy of '3.txt', LF will be replaced by CRLF the next time
Git touches it

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (master)
$ git stash save "file 3 stashed"
Saved working directory and index state On master: file 3 stashed

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (master)
$ git checkout feature-branch
Switched to branch 'feature-branch'

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (feature-branch)
$ git stash apply
On branch feature-branch
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   3.txt

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

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (feature-branch)
$ git log
commit 665694aa8db03f3c2e1250f22bdfb960933e4021 (HEAD -> feature-branch, master)
Author: harini nayaka gm <gmharininayak@gmail.com>
Date:   Tue Jan 6 10:12:33 2026 +0530
```

```
Date: Tue Jan 6 10:12:33 2026 +0530
```

```
2 file
```

```
commit ef2a6402167bf82272b457753faa9676c76c6874
Author: harini nayaka gm <gmharininayak@gmail.com>
Date: Tue Jan 6 10:08:18 2026 +0530
```

```
file 1
```

```
GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (feature-branch)
$ git commit -m "file 3"
[feature-branch 3c9b409] file 3
1 file changed, 1 insertion(+)
create mode 100644 3.txt
```

```
GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (feature-branch)
$ git log
commit 3c9b409071da726078ea59ffe14555312530da96 (HEAD -> feature-branch)
Author: harini nayaka gm <gmharininayak@gmail.com>
Date: Tue Jan 6 10:20:42 2026 +0530
```

```
file 3
```

```
commit 665694aa8db03f3c2e1250f22bdfb960933e4021 (master)
Author: harini nayaka gm <gmharininayak@gmail.com>
Date: Tue Jan 6 10:12:33 2026 +0530
```

```
2 file
```

```
commit ef2a6402167bf82272b457753faa9676c76c6874
Author: harini nayaka gm <gmharininayak@gmail.com>
Date: Tue Jan 6 10:08:18 2026 +0530
```

```
file 1
```

Experiment 4.

Collaboration and Remote Repositories:

Clone a remote Git repository to your local machine.

- git clone <repo url>

```

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (feature-branch)
$ ls
1.text 1.txt 2.txt 3.txt

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (feature-branch)
$ git clone https://github.com/gmharininayaka-bit/harini-nayaka-gm.git
Cloning into 'harini-nayaka-gm'...

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (feature-branch)
$ git clone https://github.com/gmharininayaka-bit/GIT.git
Cloning into '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), 3.95 MiB | 14.97 MiB/s, done.

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (feature-branch)
$ ls
1.text 1.txt 2.txt 3.txt  GIT/ harini-nayaka-gm/

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (feature-branch)
$ cd GIT

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp/GIT (main)
$ ls
'syllabus 4th sem.pdf'

```

Experiment 5.

Collaboration and Remote Repositories:

Fetch the latest changes from a remote repository and rebase your local branch onto the updated remote branch.

- git checkout<branch-name>
- git fetch origin
- git rebase origin/ <branch-name>
- git rebase --continue
- git push origin<branch-name>

```
> git remote set-uri origin https://github.com/gmharininayaka-bit/GIT.git
GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp/GIT (main)
$ pwd
/c/Users/GSSS/Desktop/gitexp/GIT

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp/GIT (main)
$ cd ..

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (feature-branch)
$ git remote add origin https://github.com/gmharininayaka-bit/GIT
error: remote origin already exists.

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (feature-branch)
$ git master
git: 'master' is not a git command. See 'git --help'.

The most similar command is
    restore

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (feature-branch)
$ git branch
* feature-branch
  master

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (feature-branch)
$ git checkout master
Switched to branch 'master'

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (master)
$ git fetch origin
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Compressing objects: 100% (2/2), done.

$ git branch
* feature-branch
  master

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (feature-branch)
$ git checkout master
Switched to branch 'master'

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (master)
$ git fetch origin
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)
Unpacking objects: 100% (3/3), 3.95 MiB | 9.42 MiB/s, done.
From https://github.com/gmharininayaka-bit/GIT
 * [new branch]      main        -> origin/main

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (master)
$ git rebase origin/main
Successfully rebased and updated refs/heads/master.

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (master)
$ git push origin master
info: please complete authentication in your browser...
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 20 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (6/6), 615 bytes | 615.00 KiB/s, done.
Total 6 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: Create a pull request for 'master' on GitHub by visiting:
remote:     https://github.com/gmharininayaka-bit/GIT/pull/new/master
remote:
To https://github.com/gmharininayaka-bit/GIT
 * [new branch]      master -> master
```

Experiment 6.

Collaboration and Remote Repositories:

Write the command to merge "feature-branch" into "master" while providing a custom commit message for the merge.

- git checkout master
- git merge feature-branch -m "Your custom commit message here"

```
GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (master)
$ git checkout feature-branch
Switched to branch 'feature-branch'

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (feature-branch)
$ git branch
* feature-branch
  master

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (feature-branch)
$ git checkout main
Branch 'main' set up to track 'origin/main'.
Switched to a new branch 'main'

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)
$ git merge master -m "hi this is master"
Updating e14c356..2697124
Fast-forward (no commit created; -m option ignored)
 1.txt | 1 +
 2.txt | 1 +
 2 files changed, 2 insertions(+)
 create mode 100644 1.txt
 create mode 100644 2.txt
```

Experiment 7.

Git Tags and Releases:

Write the command to create a lightweight Git tag named "v1.0" for a commit in your local repository.

- git tag v1.0
- git tag v1.0<commit-SHA>

Experiment 8.

Advanced Git Operations:

Write the command to cherry-pick a range of commits from "source-branch" to the current branch.

- git cherry-pick ABC123^..DEF456
- git cherry-pick <start commit> <end commit>

```
GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)
$ nano 4.txt

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)
$ git add 4.txt
warning: in the working copy of '4.txt', LF will be replaced by CRLF the next time Git touches it

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)
$ git commit -m"file 4"
[main 4b0adf6] file 4
1 file changed, 2 insertions(+)
```

```
GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)
$ git commit -m"file 4"
[main 4b0adf6] file 4
1 file changed, 2 insertions(+)
create mode 100644 4.txt

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)
$ git log
commit 4b0adf6caa8bd8e0550e8125d8ba2ff6cd466ccb (HEAD -> main)
Author: harini nayaka gm <gmharininayak@gmail.com>
Date:   Tue Jan 6 11:07:04 2026 +0530

    file 4

commit 2697124b8e6a8ef89eace2e132640c1f464fb865 (origin/master, master)
Author: harini nayaka gm <gmharininayak@gmail.com>
Date:   Tue Jan 6 10:12:33 2026 +0530

    2 file

commit 30e56e19f71c6d53520e443648fa440020b12d4b
Author: harini nayaka gm <gmharininayak@gmail.com>
Date:   Tue Jan 6 10:08:18 2026 +0530

    file 1

commit e14c3568be882408d53d1ef3891183282c1542e6 (origin/main, origin/HEAD)
Author: gmharininayaka-bit <gmharininayaka@gmail.com>
Date:   Tue Jan 6 10:33:15 2026 +0530

    Add files via upload

    hiiiiii

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)
$ git log --oneline
4b0adf6 (HEAD -> main) file 4
```

```
commit 30e56e19f71c6d53520e443648fa440020b12d4b
Author: harini nayaka gm <gmharininayak@gmail.com>
Date: Tue Jan 6 10:08:18 2026 +0530

    file 1

commit e14c3568be882408d53d1ef3891183282c1542e6 (origin/main, origin/HEAD)
Author: gmharininayaka-bit <gmharininayaka@gmail.com>
Date: Tue Jan 6 10:33:15 2026 +0530

    Add files via upload

    hiiiiii

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)
$ git log --oneline
4b0adf6 (HEAD -> main) file 4
2697124 (origin/master, master) 2 file
30e56e1 file 1
e14c356 (origin/main, origin/HEAD) Add files via upload

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)
$ git tag v1.0

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)
$ git tag
v1.0

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)
$ git push origin --tag
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 20 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 353 bytes | 353.00 KiB/s, done.
```

```
Writing objects: 100% (3/3), 353 bytes | 353.00 KiB/s, done.  
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)  
To https://github.com/gmharininayaka-bit/GIT  
* [new tag] v1.0 -> v1.0
```

```
GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)  
$ nano 5.txt
```

```
GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)  
$ git add 5.txt  
warning: in the working copy of '5.txt', LF will be replaced by CRLF the next time
```

```
GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)  
$ git commit -m"file 5"  
[main e0f83fe] file 5  
1 file changed, 1 insertion(+)  
create mode 100644 5.txt
```

```
GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)  
$ git log  
commit e0f83fe0afdedbedfb7722de2a56d00282cbeade (HEAD -> main)  
Author: harini nayaka gm <gmharininayak@gmail.com>  
Date: Tue Jan 6 11:11:48 2026 +0530
```

```
    file 5
```

```
commit 4b0adf6caa8bd8e0550e8125d8ba2ff6cd466ccb (tag: v1.0)  
Author: harini nayaka gm <gmharininayak@gmail.com>  
Date: Tue Jan 6 11:07:04 2026 +0530
```

```
    file 4
```

```
commit 2697124b8e6a8ef89eace2e132640c1f464fb865 (origin/master, master)  
Author: harini nayaka gm <gmharininayak@gmail.com>  
Date: Tue Jan 6 10:12:33 2026 +0530
```

```
    2 file
```

```
tree >

commit 4b0adf6caa8bd8e0550e8125d8ba2ff6cd466ccb (tag: v1.0)
author: harini nayaka gm <gmharininayak@gmail.com>
date: Tue Jan 6 11:07:04 2026 +0530

    file 4

commit 2697124b8e6a8ef89eace2e132640c1f464fb865 (origin/master, master)
author: harini nayaka gm <gmharininayak@gmail.com>
date: Tue Jan 6 10:12:33 2026 +0530

    2 file

commit 30e56e19f71c6d53520e443648fa440020b12d4b
author: harini nayaka gm <gmharininayak@gmail.com>
date: Tue Jan 6 10:08:18 2026 +0530

    file 1

commit e14c3568be882408d53d1ef3891183282c1542e6 (origin/main, origin/HEAD)
author: gmharininayaka-bit <gmharininayaka@gmail.com>
date: Tue Jan 6 10:33:15 2026 +0530

Add files via upload

hiiiiii

$SSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)
$ git log --oneline
40f83fe (HEAD -> main) file 5
4b0adf6 (tag: v1.0) file 4
2697124 (origin/master, master) 2 file
30e56e1 file 1
e14c356 (origin/main, origin/HEAD) Add files via upload
```

```
Author: gmharininayaka-bit <gmharininayaka@gmail.com>
Date:   Tue Jan 6 10:33:15 2026 +0530
```

```
Add files via upload
```

```
hiiiii
```

```
GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)
$ git log --oneline
e0f83fe (HEAD -> main) file 5
4b0adf6 (tag: v1.0) file 4
2697124 (origin/master, master) 2 file
30e56e1 file 1
e14c356 (origin/main, origin/HEAD) Add files via upload
```

```
GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)
$ git tag v2.0
```

```
GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)
$ git tag
v1.0
v2.0
```

```
GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)
$ git push origin --tag
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Delta compression using up to 20 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (2/2), 228 bytes | 228.00 KiB/s, done.
Total 2 (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/gmharininayaka-bit/GIT
 * [new tag]           v2.0 -> v2.0
```

Experiment 9.

Analysing and Changing Git History:

Given a commit ID, how would you use Git to view the details of that specific commit, including the author, date, and commit message?

- git show abc123

- git show <commit -ID>

- git log -n 1 abc123

- git log -n 1<commit-ID>

```
GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)
$ git show e0f83fe
commit e0f83fe0afdedbedfb7722de2a56d00282cbe (HEAD -> main, tag: v2.0)
Author: harini nayaka gm <gmharininayak@gmail.com>
Date: Tue Jan 6 11:11:48 2026 +0530

    file 5

diff --git a/5.txt b/5.txt
new file mode 100644
index 000000..e7919dd
--- /dev/null
+++ b/5.txt
@@ -0,0 +1 @@
+hi i am harini

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)
$ git log -n 1 e0f83fe
commit e0f83fe0afdedbedfb7722de2a56d00282cbe (HEAD -> main, tag: v2.0)
Author: harini nayaka gm <gmharininayak@gmail.com>
Date: Tue Jan 6 11:11:48 2026 +0530

    file 5

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)
$ git log
commit e0f83fe0afdedbedfb7722de2a56d00282cbe (HEAD -> main, tag: v2.0)
Author: harini nayaka gm <gmharininayak@gmail.com>
Date: Tue Jan 6 11:11:48 2026 +0530

    file 5

commit 4b0adf6caa8bd8e0550e8125d8ba2ff6cd466ccb (tag: v1.0)
Author: harini nayaka gm <gmharininayak@gmail.com>
Date: Tue Jan 6 11:07:04 2026 +0530

    file 4

commit 2697124b8e6a8ef89eace2e132640c1f464fb865 (origin/master, master)
Author: harini nayaka gm <gmharininayak@gmail.com>
```

```
commit 2697124b8e6a8ef89eace2e132640c1f464fb865 (origin/master, master)
Author: harini nayaka gm <gmharininayak@gmail.com>
Date: Tue Jan 6 10:12:33 2026 +0530

  2 file

commit 30e56e19f71c6d53520e443648fa440020b12d4b
Author: harini nayaka gm <gmharininayak@gmail.com>
Date: Tue Jan 6 10:08:18 2026 +0530

  file 1

commit e14c3568be882408d53d1ef3891183282c1542e6 (origin/main, origin/HEAD)
Author: gmharininayaka-bit <gmharininayaka@gmail.com>
Date: Tue Jan 6 10:33:15 2026 +0530

  Add files via upload

  hiiiiii

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)
$ git log --n 2
fatal: ambiguous argument '2': unknown revision or path not in the working tree.
Use '--' to separate paths from revisions, like this:
'git <command> [<revision>...] -- [<file>...]'

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)
$ git log -n 2
commit e0f83fe0afdedbedfb7722de2a56d00282cbecde (HEAD -> main, tag: v2.0)
Author: harini nayaka gm <gmharininayak@gmail.com>
Date: Tue Jan 6 11:11:48 2026 +0530

  file 5

commit 4b0adf6caa8bd8e0550e8125d8ba2ff6cd466ccb (tag: v1.0)
Author: harini nayaka gm <gmharininayak@gmail.com>
Date: Tue Jan 6 11:07:04 2026 +0530

  file 4

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)
$ git log -n 1 e0f83fe0afdedbedfb7722de2a56d00282cbecde
commit e0f83fe0afdedbedfb7722de2a56d00282cbecde (HEAD -> main, tag: v2.0)
Author: harini nayaka gm <gmharininayak@gmail.com>
Date: Tue Jan 6 11:11:48 2026 +0530

  file 5
```

Experiment 10.

Analysing and Changing Git History

Write the command to list all commits made by the author "JohnDoe" between "2023-01-01" and "2023-12-31."

```
•git log --author="JohnDoe" --since="2023-01-01" --until="2023-12-31"
```

```
sss@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)
git log --author="harini nayaka gm" --since="01-02-2026" --until="10-03-2026"
commit e0f83fe0afdedbedfb7722de2a56d00282cbece (HEAD -> main, tag: v2.0)
author: harini nayaka gm <gmharininayak@gmail.com>
date: Tue Jan 6 11:11:48 2026 +0530

    file 5

commit 4b0adf6caa8bd8e0550e8125d8ba2ff6cd466ccb (tag: v1.0)
author: harini nayaka gm <gmharininayak@gmail.com>
date: Tue Jan 6 11:07:04 2026 +0530

    file 4

commit 2697124b8e6a8ef89eace2e132640c1f464fb865 (origin/master, master)
author: harini nayaka gm <gmharininayak@gmail.com>
date: Tue Jan 6 10:12:33 2026 +0530

    2 file

commit 30e56e19f71c6d53520e443648fa440020b12d4b
author: harini nayaka gm <gmharininayak@gmail.com>
date: Tue Jan 6 10:08:18 2026 +0530
```

Experiment 11.

Analysing and Changing Git History:

Write the command to display the last five commits in the repository's history.

•git log -n 5

•git log -n 5 --oneline

```

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)
$ git log
commit 4b0adf6caa8bd8e0550e8125d8ba2ff6cd466ccb (HEAD -> main)
Author: harini nayaka gm <gmharininayak@gmail.com>
Date:   Tue Jan 6 11:07:04 2026 +0530

    file 4

commit 2697124b8e6a8ef89eace2e132640c1f464fb865 (origin/master, master)
Author: harini nayaka gm <gmharininayak@gmail.com>
Date:   Tue Jan 6 10:12:33 2026 +0530

    2 file

commit 30e56e19f71c6d53520e443648fa440020b12d4b
Author: harini nayaka gm <gmharininayak@gmail.com>
Date:   Tue Jan 6 10:08:18 2026 +0530

    file 1

commit e14c3568be882408d53d1ef3891183282c1542e6 (origin/main, origin/HEAD)
Author: gmharininayaka-bit <gmharininayaka@gmail.com>
Date:   Tue Jan 6 10:33:15 2026 +0530

    Add files via upload

    hiiiiii

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)
$ git log --oneline
4b0adf6 (HEAD -> main) file 4

    2 file

commit 30e56e19f71c6d53520e443648fa440020b12d4b
Author: harini nayaka gm <gmharininayak@gmail.com>
Date:   Tue Jan 6 10:08:18 2026 +0530

    file 1

commit e14c3568be882408d53d1ef3891183282c1542e6 (origin/main, origin/HEAD)
Author: gmharininayaka-bit <gmharininayaka@gmail.com>
Date:   Tue Jan 6 10:33:15 2026 +0530

    Add files via upload

    hiiiiii

GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)
$ git log --oneline
4b0adf6 (HEAD -> main) file 4
2697124 (origin/master, master) 2 file
30e56e1 file 1
e14c356 (origin/main, origin/HEAD) Add files via upload

```

Experiment 12.

Analysing and Changing Git History Write the command to undo the changes

introduced by the commit with the ID "abc123".

```
•git revert abc123
```

```
Revert "file 1"
```

```
[main f562d6e] Revert "file 1"  
1 file changed, 1 deletion(-)  
delete mode 100644 1.txt
```

```
GSSS@DESKTOP-G36BAK2 MINGW64 ~/Desktop/gitexp (main)  
$ |
```