

1

```
• PS C:\Users\amrut\Desktop\Test_Git> git init
Initialized empty Git repository in C:/Users/amrut/Desktop/Test_Git/.git/
• PS C:\Users\amrut\Desktop\Test_Git> touch sample.txt
• PS C:\Users\amrut\Desktop\Test_Git> echo "Hey this is the initial message">sample.txt
• PS C:\Users\amrut\Desktop\Test_Git> git add .
• PS C:\Users\amrut\Desktop\Test_Git> git commit -m "initial"
[main (root-commit) dc36bb9] initial
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 sample.txt
• PS C:\Users\amrut\Desktop\Test_Git> git status
On branch main
nothing to commit, working tree clean
• PS C:\Users\amrut\Desktop\Test_Git> git remote add origin https://github.com/Amruth-empire/git.git
• PS C:\Users\amrut\Desktop\Test_Git> git remote -v
origin https://github.com/Amruth-empire/git.git (fetch)
origin https://github.com/Amruth-empire/git.git (push)
⊗ PS C:\Users\amrut\Desktop\Test_Git> git push -u origin main
To https://github.com/Amruth-empire/git.git
 ! [rejected]          main -> main (fetch first)
error: failed to push some refs to 'https://github.com/Amruth-empire/git.git'
hint: Updates were rejected because the remote contains work that you do not
hint: have locally. This is usually caused by another repository pushing to
hint: the same ref. If you want to integrate the remote changes, use
hint: 'git pull' before pushing again.
hint: See the 'Note about fast-forwards' in 'git push --help' for details.
• PS C:\Users\amrut\Desktop\Test_Git> git pull origin main --rebase
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (3/3), 848 bytes | 65.00 KiB/s, done.
From https://github.com/Amruth-empire/git
 * branch            main      -> FETCH_HEAD
 * [new branch]      main      -> origin/main
Successfully rebased and updated refs/heads/main.
• PS C:\Users\amrut\Desktop\Test_Git> git push -u origin main
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 12 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 329 bytes | 329.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
```

2a

```
PS C:\Users\amrut\Desktop\Test_Git> git branch
* main
PS C:\Users\amrut\Desktop\Test_Git> git checkout -b feature-branch
Switched to a new branch 'feature-branch'
PS C:\Users\amrut\Desktop\Test_Git> git branch
PS C:\Users\amrut\Desktop\Test_Git> git branch
* main
PS C:\Users\amrut\Desktop\Test_Git> git checkout -b feature-branch
Switched to a new branch 'feature-branch'
PS C:\Users\amrut\Desktop\Test_Git> git branch
* feature-branch
  main
PS C:\Users\amrut\Desktop\Test_Git> touch lab1.txt
PS C:\Users\amrut\Desktop\Test_Git> echo "lab1 content is here">.\lab1.txt
● PS C:\Users\amrut\Desktop\Test_Git> git branch
* feature-branch
  main
● PS C:\Users\amrut\Desktop\Test_Git> git add .
● PS C:\Users\amrut\Desktop\Test_Git> git commit -m "second commit"
[feature-branch 32270a7] second commit
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 lab1.txt
● PS C:\Users\amrut\Desktop\Test_Git> git switch main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
● PS C:\Users\amrut\Desktop\Test_Git> git merge feature-branch
Updating 0f51e21..32270a7
Fast-forward
 lab1.txt | Bin 0 -> 46 bytes
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 lab1.txt
● PS C:\Users\amrut\Desktop\Test_Git> git push
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), 345 bytes | 345.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/Amruth-empire/git.git
 0f51e21..32270a7  main -> main
○ PS C:\Users\amrut\Desktop\Test_Git> █
```


2b

```
● PS C:\Users\amrut\Desktop\Test_Git> git branch feature
● PS C:\Users\amrut\Desktop\Test_Git> git switch feature
Switched to branch 'feature'
● PS C:\Users\amrut\Desktop\Test_Git> git branch -v
* feature          32270a7 second commit
  feature-branch 32270a7 second commit
  main            32270a7 second commit
● PS C:\Users\amrut\Desktop\Test_Git> echo "This is lab2 information">lab2.txt
Switched to branch 'feature'
● PS C:\Users\amrut\Desktop\Test_Git> git add .\lab2.txt
● PS C:\Users\amrut\Desktop\Test_Git> git stash
Saved working directory and index state WIP on feature: 32270a7 second commit
● PS C:\Users\amrut\Desktop\Test_Git> git switch main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
● PS C:\Users\amrut\Desktop\Test_Git> git stash apply
On branch main
Your branch is up to date with 'origin/main'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   lab2.txt

○ PS C:\Users\amrut\Desktop\Test_Git> 
```

- PS C:\Users\amrut\Desktop\Test_Git_2> git clone https://github.com/Amruth-empire/Git_Command.git
Cloning into 'Git_Command'...
remote: Enumerating objects: 22, done.
remote: Counting objects: 100% (22/22), done.
remote: Compressing objects: 100% (12/12), done.
remote: Total 22 (delta 1), reused 19 (delta 1), pack-reused 0 (from 0)
Receiving objects: 100% (22/22), done.
Resolving deltas: 100% (1/1), done.
- PS C:\Users\amrut\Desktop\Test_Git_2> cd .\Git_Command\
- PS C:\Users\amrut\Desktop\Test_Git_2\Git_Command> git fetch
- PS C:\Users\amrut\Desktop\Test_Git_2\Git_Command> git rebase origin/main
Current branch main is up to date.
- PS C:\Users\amrut\Desktop\Test_Git_2\Git_Command> git branch
* main
- PS C:\Users\amrut\Desktop\Test_Git_2\Git_Command> git checkout -b feature-branch
Switched to a new branch 'feature-branch'
- PS C:\Users\amrut\Desktop\Test_Git_2\Git_Command> echo "Test feature" > feature.txt
- PS C:\Users\amrut\Desktop\Test_Git_2\Git_Command> git add feature.txt
- PS C:\Users\amrut\Desktop\Test_Git_2\Git_Command> git commit -m "Add feature.txt from feature-branch"
[feature-branch ff89a36] Add feature.txt from feature-branch
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 feature.txt
- PS C:\Users\amrut\Desktop\Test_Git_2\Git_Command> git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
- PS C:\Users\amrut\Desktop\Test_Git_2\Git_Command> git merge feature-branch --no-ff -m "Merge feature-branch into main"
Merge made by the 'ort' strategy.
feature.txt | Bin 0 -> 30 bytes
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 feature.txt
- PS C:\Users\amrut\Desktop\Test_Git_2\Git_Command> █

4

```
● PS C:\Users\amrut\Desktop\git_tag> git init
Reinitialized existing Git repository in C:/Users/amrut/Desktop/git_tag/.git/
● PS C:\Users\amrut\Desktop\git_tag> echo "This is the tag message">sample.txt
● PS C:\Users\amrut\Desktop\git_tag> git add .\sample.txt
● PS C:\Users\amrut\Desktop\git_tag> git commit -m "Initial commit"
[main (root-commit) 71867a0] Initial commit
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 sample.txt
● PS C:\Users\amrut\Desktop\git_tag> git tag v1.0
● PS C:\Users\amrut\Desktop\git_tag> git show v1.0
commit 71867a0fa7ccdf6b548c593a8ef2a7a6dcd9a4e9 (HEAD -> main, tag: v1.0)
Author: Amruth -empire <msamruth74@gmail.com>
Date:   Wed May 21 00:19:28 2025 +0530

Initial commit

diff --git a/sample.txt b/sample.txt
new file mode 100644
index 0000000..5fdc7dc
Binary files /dev/null and b/sample.txt differ
● PS C:\Users\amrut\Desktop\git_tag> █
```

- PS C:\Users\amrut\Desktop\git_Log_command> git init
Reinitialized existing Git repository in C:/Users/amrut/Desktop/git_Log_command/.git/
- PS C:\Users\amrut\Desktop\git_Log_command> echo "This is the main branch information">main.txt
- PS C:\Users\amrut\Desktop\git_Log_command> git add .\main.txt
- PS C:\Users\amrut\Desktop\git_Log_command> git commit -m "Initial"
[main (root-commit) cb8152f] Initial
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 main.txt
- PS C:\Users\amrut\Desktop\git_Log_command> git status
On branch main
nothing to commit, working tree clean
- PS C:\Users\amrut\Desktop\git_Log_command> git branch feature-branch
- PS C:\Users\amrut\Desktop\git_Log_command> git switch feature-branch
Switched to branch 'feature-branch'
- PS C:\Users\amrut\Desktop\git_Log_command> git branch
* feature-branch
main
- PS C:\Users\amrut\Desktop\git_Log_command> echo "This is the feature branch information">feature.txt
- PS C:\Users\amrut\Desktop\git_Log_command> git add .\feature.txt
- PS C:\Users\amrut\Desktop\git_Log_command> git commit -m "Feature"
[feature-branch edd56ed] Feature
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 feature.txt
- PS C:\Users\amrut\Desktop\git_Log_command> git log --oneline
edd56ed (HEAD -> feature-branch) Feature
cb8152f (main) Initial
- PS C:\Users\amrut\Desktop\git_Log_command> git switch main
Switched to branch 'main'
- PS C:\Users\amrut\Desktop\git_Log_command> git cherry-pick edd56ed
[main 2e39de7] Feature
Date: Wed May 21 01:04:35 2025 +0530
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 feature.txt
- PS C:\Users\amrut\Desktop\git_Log_command> █


```

• PS C:\Users\amrut\Desktop\git_author> git init
  Initialized empty Git repository in C:/Users/amrut/Desktop/git_author/.git/
• PS C:\Users\amrut\Desktop\git_author> echo "This is the main branch information">main.txt
• PS C:\Users\amrut\Desktop\git_author> git add .\main.txt
• PS C:\Users\amrut\Desktop\git_author> git commit -m "initial"
[main (root-commit) 2bc55aa] initial
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 main.txt
• PS C:\Users\amrut\Desktop\git_author> git status
On branch main
nothing to commit, working tree clean
• PS C:\Users\amrut\Desktop\git_author> git branch feature-branch
• PS C:\Users\amrut\Desktop\git_author> git switch feature-branch
Switched to branch 'feature-branch'
• PS C:\Users\amrut\Desktop\git_author> git branch
* feature-branch
  main
• PS C:\Users\amrut\Desktop\git_author> echo "This is the feature branch information">feature.txt
• PS C:\Users\amrut\Desktop\git_author> git add .\feature.txt
• PS C:\Users\amrut\Desktop\git_author> git commit -m "Feature"
[feature-branch 04a75f6] Feature
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 feature.txt
• PS C:\Users\amrut\Desktop\git_author> git log --oneline
04a75f6 (HEAD -> feature-branch) Feature
2bc55aa (main) initial
• PS C:\Users\amrut\Desktop\git_author> git switch main
Switched to branch 'main'
• PS C:\Users\amrut\Desktop\git_author> git show 04a75f6
commit 04a75f636cf6ce061050f4b35de0d084d61ad4e8 (feature-branch)
Author: Amruth -empire <msamruth74@gmail.com>
Date:   Wed May 21 01:16:35 2025 +0530

    Feature

diff --git a/feature.txt b/feature.txt
new file mode 100644
index 0000000..7746095
Binary files /dev/null and b/feature.txt differ
• PS C:\Users\amrut\Desktop\git_author> git log --author="Amruth" --after="2024-01-01" --before="2025-05-22"
commit 2bc55aa7fe698b6015d0cb1531edab17c729c1f0 (HEAD -> main)
Author: Amruth -empire <msamruth74@gmail.com>
Date:   Wed May 21 01:14:40 2025 +0530

    initial
• PS C:\Users\amrut\Desktop\git_author> git log -n 5
commit 2bc55aa7fe698b6015d0cb1531edab17c729c1f0 (HEAD -> main)
Author: Amruth -empire <msamruth74@gmail.com>
Date:   Wed May 21 01:14:40 2025 +0530

    initial
• PS C:\Users\amrut\Desktop\git_author>

```