

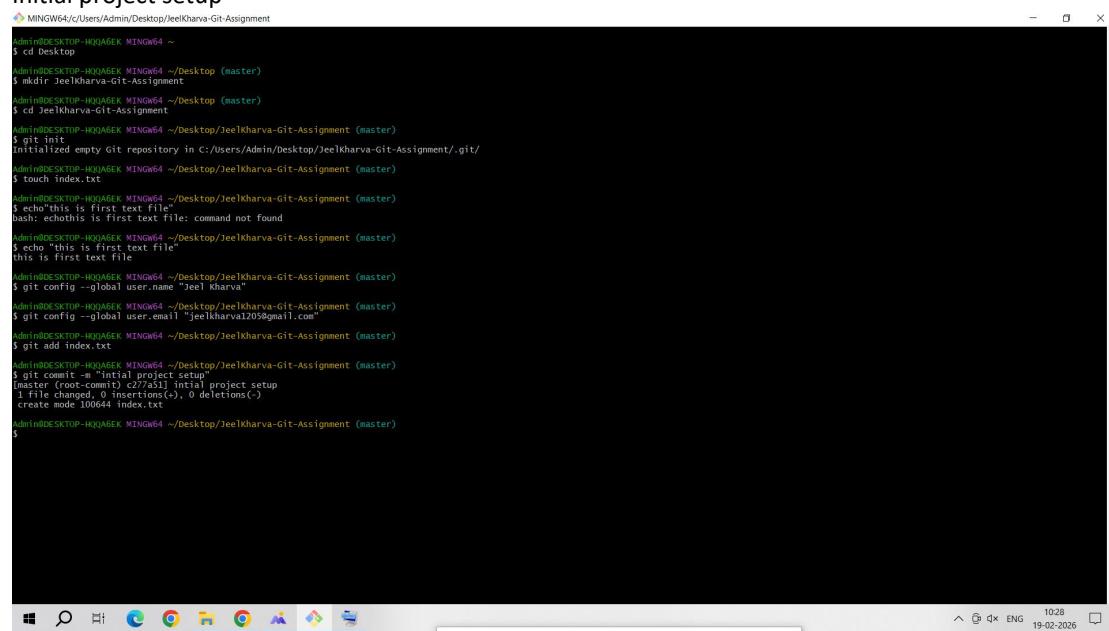
TASK 1: Repository Setup

Goal: Initialize Git and create first commit

Steps:

1. Create a folder named git-assignment-yourfullname
2. Navigate into the folder
3. Initialize Git repository
4. Create a file named index.txt
5. Check repository status
6. Stage the file
7. Commit with message:

Initial project setup



```
MINGW64:/c/Users/Admin/Desktop/JeelKharva-Git-Assignment
$ cd Desktop
$ cd JeelKharva-Git-Assignment
$ touch index.txt
$ echo "this is first text file" > index.txt
$ git init
Initialized empty Git repository in C:/Users/Admin/Desktop/JeelKharva-Git-Assignment/.git/
$ git config --global user.name "Jeel Kharva"
$ git config --global user.email "jeelkharval205@gmail.com"
$ git add index.txt
$ git commit -m "Initial project setup"
[master (root-commit) cefca51] Initial project setup
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 index.txt
$
```

TASK 2: Branch Creation & Work

Goal: Work independently in a branch

Steps:

1. Create a branch named feature-header
2. Switch to feature-header
3. Create a file named header.txt
4. Stage the file
5. Commit with message:

Added header section

```

MINGW64/c/Users/Admin/Desktop/jeelKharva-Git-Assignment
$ cd Desktop
Administrator@DESKTOP-HQJ4AEGE MINGW64 ~
$ mkdir JeelKharva-Git-Assignment
Administrator@DESKTOP-HQJ4AEGE MINGW64 ~
$ cd JeelKharva-Git-Assignment
Administrator@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$ git init
Initialized empty Git repository in C:/Users/Admin/Desktop/JeelKharva-Git-Assignment/.git/
Administrator@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$ touch index.txt
Administrator@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$ echo "this is first text file" > index.txt
bash: echo: `this is first text file': command not found
Administrator@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$ echo "this is first text file"
this is first text file
Administrator@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$ git config --global user.name "Jeel Kharva"
Administrator@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$ git config --global user.email "jeelkharval205@gmail.com"
Administrator@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$ git add index.txt
Administrator@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$ git commit -m "Initial project setup"
[master (root-commit) c277a51] Initial project setup
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 index.txt
Administrator@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$ git branch feature-header
Administrator@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$ git checkout feature-header
Switched to branch 'feature-header'
Administrator@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (feature-header)
$ touch header.txt
Administrator@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (feature-header)
$ add header.txt
bash: add: command not found
Administrator@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (feature-header)
$ git add header.txt
Administrator@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (feature-header)
$ 

```

TASK 3: Branch Switching Observation

Goal: Observe branch isolation

Steps:

1. Switch back to master
2. List files and observe
3. Switch again to feature-header
4. List files and observe

```

MINGW64/c/Users/Admin/Desktop/jeelKharva-Git-Assignment
Administrator@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$ git commit -comitt-id
bash: syntax error near unexpected token `newline'
Administrator@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$ 
Administrator@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (HEAD -> master)
commit c277a51eb1caaf1a0f0578d5e80cf32f0ff851d5 (HEAD -> master)
Author: Jeel Kharva <jeelkharval205@gmail.com>
Date:   Thu Feb 19 10:27:43 2026 +0500

  initial project setup

Administrator@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$ git checkout -comitt-id
bash: syntax error near unexpected token `newline'
Administrator@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$ 
Administrator@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$ git log
commit c277a51eb1caaf1a0f0578d5e80cf32f0ff851d5 (HEAD -> master)
Author: Jeel Kharva <jeelkharval205@gmail.com>
Date:   Thu Feb 19 10:27:43 2026 +0500

  initial project setup

Administrator@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$ git checkout AC
Administrator@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$ 
Administrator@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$ git log
error: pathspec 'c277a51eb1caaf1a0f0578d5e80cf32f0ff851d5' did not match any file(s) known to git
Administrator@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$ 
Note: switching to 'c277a51'.

You are in 'detached HEAD' state. You can look around, make experimental
changes and commit them, and you can discard any commits you make in this
state without impacting any branches by switching back to a branch.

If you want to create a new branch to retain commits you create, you may
do so (now or later) by using -c with the switch command. Example:
  git switch -c <new-branch-name>

Or undo this operation with:
  git switch -

Turn off this advice by setting config variable advice.detachedHead to false
HEAD is now at c277a51 initial project setup
Administrator@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment ((c277a51...))
$ 

```

TASK 4: Undo a Mistake

Goal: Safely undo file changes

Steps:

1. In feature-header, modify index.txt

2. Check repository status

3. Undo the change using Git

4. Verify status again

```
MINGW4/c/Users/Admin/Desktop/JeelKharva-Git-Assignment
$ ls
index.txt

Admin@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (feature-header)
$ git add index.txt
nothing to add, nothing added.
hint: Maybe you wanted to say 'git add -?'
hint: Disable this message with "git config set advice.addEmptyPathspec false"
Admin@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (feature-header)
$ git commit -m "updated index file"
[feature-header 8a24474] updated index file
 1 file changed, 1 insertion(+)

Admin@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (feature-header)
$ git status
On branch feature-header
nothing to commit, working tree clean

Admin@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (feature-header)
$ git checkout -- index.txt
Admin@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (feature-header)
$ ls
index.txt

Admin@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (feature-header)
$ git merge feature-header
merge: Feature-header - not something we can merge

Admin@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$ ls
Index.txt

Admin@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$ git commit -m "c273a1e1dcaaf1a05f8d75e80cf32fd0f851d5 (HEAD -> master)"
[master c273a1e] (HEAD -> master)
Author: Jeel Kharva <jeelkharva1205@gmail.com>
Date:   Thu Feb 19 10:27:43 2020 +0530

  initial project setup

Admin@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$
```

```
MINGW64/c/Users/Admin/Desktop/JeelKharva-Git-Assignment
$ ls
header.txt index.txt

Admin@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$ git status
On branch feature-header
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
    (use "git restore <file>..." to discard changes in working directory)
      modified:   index.txt

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

Admin@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (feature-header)
$ ls
header.txt index.txt

Admin@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (feature-header)
$ git add header.txt
Nothing specified, nothing added.
hint: Maybe you wanted to say 'git add -?'
hint: Disable this message with "git config set advice.addEmptyPathspec false"
Admin@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (feature-header)
$ git commit -m "updated index file"
[feature-header 8a24474] updated index file
 1 file changed, 1 insertion(+)

Admin@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (feature-header)
$ git status
On branch feature-header
nothing to commit, working tree clean

Admin@DESKTOP-HQJ4AEGE MINGW64 ~/Desktop/JeelKharva-Git-Assignment (feature-header)
$ -
```

TASK 5: Merge Feature Branch

Goal: Combine work into master

Steps:

1. Switch to master
2. Merge feature-header
3. Verify merged files
4. Check commit history

```
MINGW64/c/Users/Admin/Desktop/JeelKharva-Git-Assignment
Administrator:DESKTOP-HQQA6EK MINGW64 ~/Desktop/JeelKharva-Git-Assignment (feature-header)
$ echo "wrong line added" >> index.txt
Administrator:DESKTOP-HQQA6EK MINGW64 ~/Desktop/JeelKharva-Git-Assignment (feature-header)
$ git status
On branch feature-header
Changes to be committed:
  (use "git add <file>..." to update what will be committed)
    (use "git restore <file>..." to discard changes in working directory)
      modified:   index.txt

no changes added to commit (use "git add" and/or "git commit -a")
Administrator:DESKTOP-HQQA6EK MINGW64 ~/Desktop/JeelKharva-Git-Assignment (feature-header)
$ git add .
Nothing specified, nothing added
Administrator:DESKTOP-HQQA6EK MINGW64 ~/Desktop/JeelKharva-Git-Assignment (feature-header)
$ git commit -m "updated index file"
[feature-header 8a24474] updated index file
 1 file changed, 1 insertion(+)

Administrator:DESKTOP-HQQA6EK MINGW64 ~/Desktop/JeelKharva-Git-Assignment (feature-header)
$ git status
On branch feature-header
nothing to commit, working tree clean

Administrator:DESKTOP-HQQA6EK MINGW64 ~/Desktop/JeelKharva-Git-Assignment (feature-header)
$ git checkout -- index.txt
Administrator:DESKTOP-HQQA6EK MINGW64 ~/Desktop/JeelKharva-Git-Assignment (feature-header)
$ git status
On branch feature-header
nothing to commit, working tree clean

Administrator:DESKTOP-HQQA6EK MINGW64 ~/Desktop/JeelKharva-Git-Assignment (feature-header)
$ git merge feature-header
merging: feature-header - not something we can merge
Administrator:DESKTOP-HQQA6EK MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$
```

TASK 6: Checkout a Commit (Detached HEAD)

Goal: Understand commit-level navigation

Steps:

1. View commit history
2. Checkout any older commit
3. Check current branch status
4. Switch back safely to master

```
MINGW64/c/Users/Admin/Desktop/JeelKharva-Git-Assignment
Date: Thu Feb 19 10:27:43 2020 +0530
  initial project setup
Administrator:DESKTOP-HQQA6EK MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$ git checkout -c
bash: syntax error near unexpected token `newline'
Administrator:DESKTOP-HQQA6EK MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$ git log
commit c277a51ebcaaf1af0578d75e80cf32f0ff851d5 (HEAD -> master)
Author: Jeel Kharva <jeelkharva202@gmail.com>
Date: Thu Feb 19 10:27:43 2020 +0530
  initial project setup
Administrator:DESKTOP-HQQA6EK MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$ git checkout -c
Administrator:DESKTOP-HQQA6EK MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$ git log
commit c277a51ebcaaf1af0578d75e80cf32f0ff851d5
error: pathspec 'c277a51ebcaaf1af0578d75e80cf32f0ff851d5' did not match any file(s) known to git
Administrator:DESKTOP-HQQA6EK MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$ git checkout c277a51
Note: switching to 'c277a51'.
You are in 'detached HEAD' state. You can look around, make experimental
changes and commit them, and you can discard your changes in this
state without impacting any branches by switching back to a branch.
If you want to create a new branch to retain commits you create, you may
do so (now or later) by using -c with the switch command. Example:
  git switch -c <new-branch-name>
Or undo this operation with:
  git switch -
Turn off this advice by setting config variable advice.detachedHead to false
HEAD is now at c277a51 initial project setup
Administrator:DESKTOP-HQQA6EK MINGW64 ~/Desktop/JeelKharva-Git-Assignment ((c277a51...))
$ git status
HEAD detached at c277a51
nothing to commit, working tree clean
Administrator:DESKTOP-HQQA6EK MINGW64 ~/Desktop/JeelKharva-Git-Assignment ((c277a51...))
$ git checkout master
switched to branch 'master'
Administrator:DESKTOP-HQQA6EK MINGW64 ~/Desktop/JeelKharva-Git-Assignment (master)
$
```