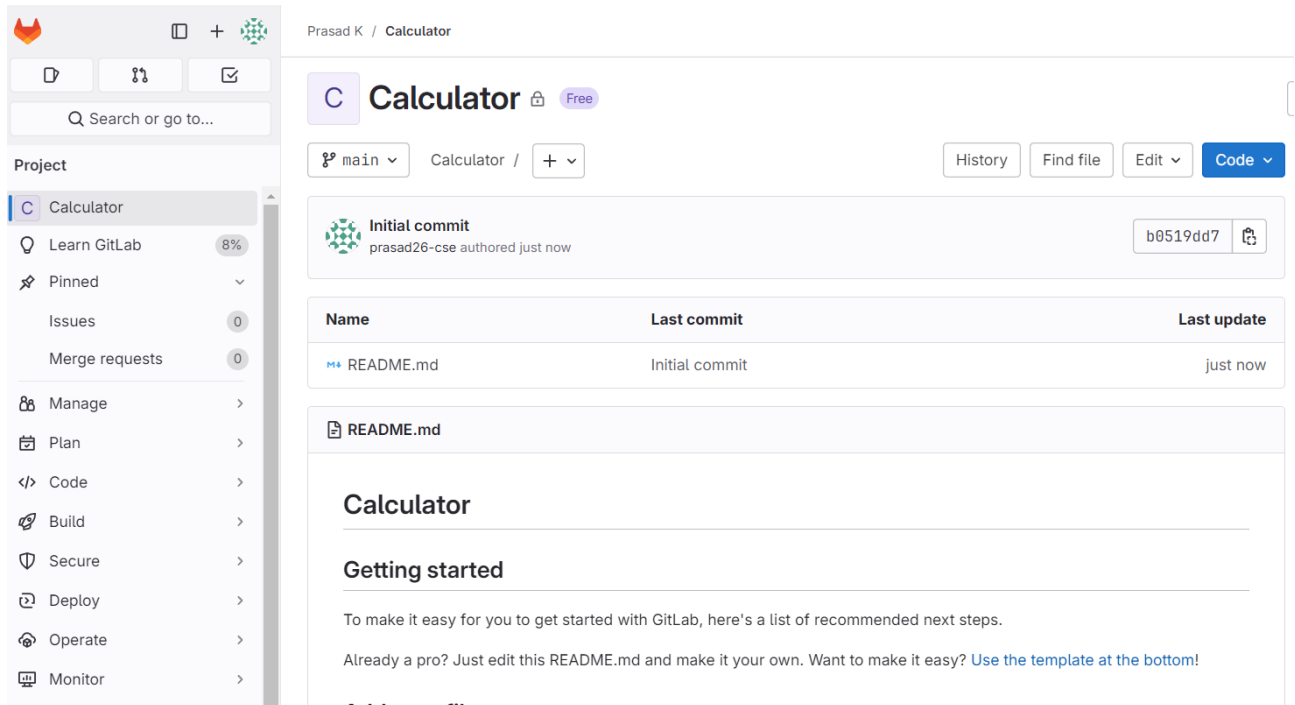


## Experiment No. 3

### Title: Implement GitLab Operations using Git.

#### Step 1: Creating a Repository in GitLab :



#### Step 2: Cloning the Repository

Navigate to the directory where you want to clone the repository:

```
VICTUS@LAPTOP-KQ3G1MA9 MINGW64 ~ (master)
$ cd d:

VICTUS@LAPTOP-KQ3G1MA9 MINGW64 /d
$ cd Clone-Repo
bash: cd: Clone-Repo: No such file or directory

VICTUS@LAPTOP-KQ3G1MA9 MINGW64 /d
$ cd Clone-Repo

VICTUS@LAPTOP-KQ3G1MA9 MINGW64 /d/Clone-Repo
$ |
```

Clone the repository by running the following command:

```
VICTUS@LAPTOP-KQ3G1MA9 MINGW64 /d/Clone-Repo
$ git clone https://gitlab.com/prasad-k/Calculator.git
Cloning into 'Calculator'...
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.
```

Name	Date modified	Type	Size
Calculator	10/16/2024 4:37 PM	File folder	

### Step 3: Making Changes and Creating a Branch

Navigate into the cloned repository:

```
VICTUS@LAPTOP-KQ3G1MA9 MINGW64 /d/Clone-Repo
$ cd Calculator
```

Create a new text file named example.txt using a text editor :

```
VICTUS@LAPTOP-KQ3G1MA9 MINGW64 /d/Clone-Repo/Calculator (main)
$ nano example.txt

VICTUS@LAPTOP-KQ3G1MA9 MINGW64 /d/Clone-Repo/Calculator (main)
$ nano example1.txt
```

Name	Date modified	Type	Size
example	10/16/2024 4:40 PM	Text Document	1 KB
example1	10/16/2024 4:40 PM	Text Document	1 KB
README	10/16/2024 4:37 PM	Markdown Source ...	7 KB

Check the status of the repository:

```
VICTUS@LAPTOP-KQ3G1MA9 MINGW64 /d/Clone-Repo/Calculator (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)
    example.txt
    example1.txt

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

Stage the changes for commit:

```
VICTUS@LAPTOP-KQ3G1MA9 MINGW64 /d/Clone-Repo/Calculator (main)
$ git add example.txt
warning: in the working copy of 'example.txt', LF will be replaced by CRLF the next time Git touches it

VICTUS@LAPTOP-KQ3G1MA9 MINGW64 /d/Clone-Repo/Calculator (main)
$ git add example1.txt
warning: in the working copy of 'example1.txt', LF will be replaced by CRLF the next time Git touches it
```

Commit the changes with a descriptive message:

```
VICTUS@LAPTOP-KQ3G1MA9 MINGW64 /d/Clone-Repo/Calculator (main)
$ git commit -m "Adding example.txt and example1.txt"
[main 673b0ab] Adding example.txt and example1.txt
2 files changed, 2 insertions(+)
create mode 100644 example.txt
create mode 100644 example1.txt
```

Create a new branch named feature:

```
VICTUS@LAPTOP-KQ3G1MA9 MINGW64 /d/Clone-Repo/Calculator (main)
$ git branch feature
```

Switch to the "feature" branch:

```
VICTUS@LAPTOP-KQ3G1MA9 MINGW64 /d/Clone-Repo/Calculator (main)
$ git checkout feature
Switched to branch 'feature'
```

#### Step 4: Pushing Changes to GitLab

Add the GitLab repository URL as a remote:


```
VICTUS@LAPTOP-KQ3G1MA9 MINGW64 /d/Clone-Repo/Calculator (feature)
$ git remote add origin https://gitlab.com/prasad-k/Calculator.git
error: remote origin already exists.
```

Push the "feature" branch to GitLab::

```
VICTUS@LAPTOP-KQ3G1MA9 MINGW64 /d/Clone-Repo/Calculator (feature)
$ git push origin feature
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 12 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (4/4), 379 bytes | 379.00 KiB/s, done.
Total 4 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: To create a merge request for feature, visit:
remote:   https://gitlab.com/prasad-k/Calculator/-/merge_requests/new?merge_request%5Bsource_branch%5D=
feature
remote:
remote: To https://gitlab.com/prasad-k/Calculator.git
* [new branch]      feature -> feature
```



Check your GitLab repository to confirm that the new branch feature is available

Prasad K / Calculator / Repository


 You pushed to **feature** 1 minute ago ×

Create merge request

🔍 feature ▾ Calculator / + ▾ Compare History Find file Edit ▾ Code ▾

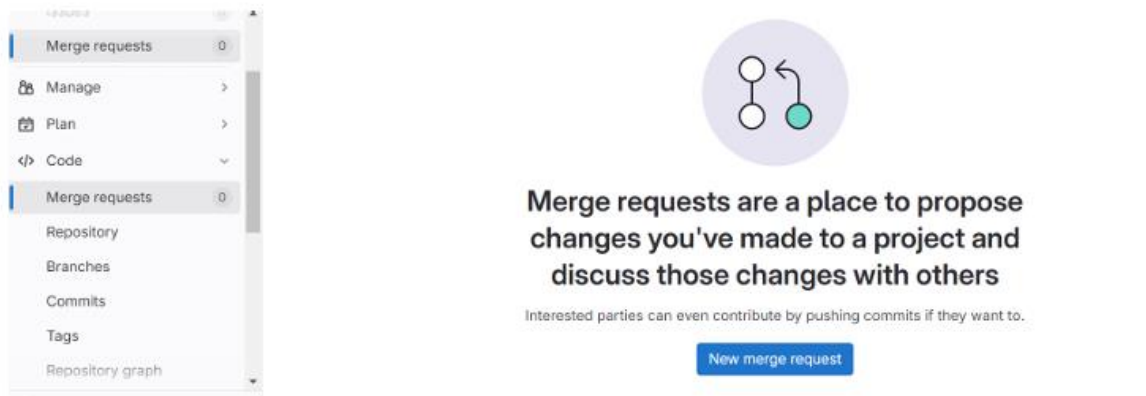
 Adding example.txt and example1.txt  
prasad26-cse authored 6 minutes ago 673b0ab8 

Name	Last commit	Last update
📄 README.md	Initial commit	19 minutes ago
📄 example.txt	Adding example.txt and example1.txt	6 minutes ago
📄 example1.txt	Adding example.txt and example1.txt	6 minutes ago

 README.md

## Step 5: Collaborating through Merge Requests

Click on "Merge Requests" and then "New Merge Request."



Select the source branch (feature) and the target branch (main or master).

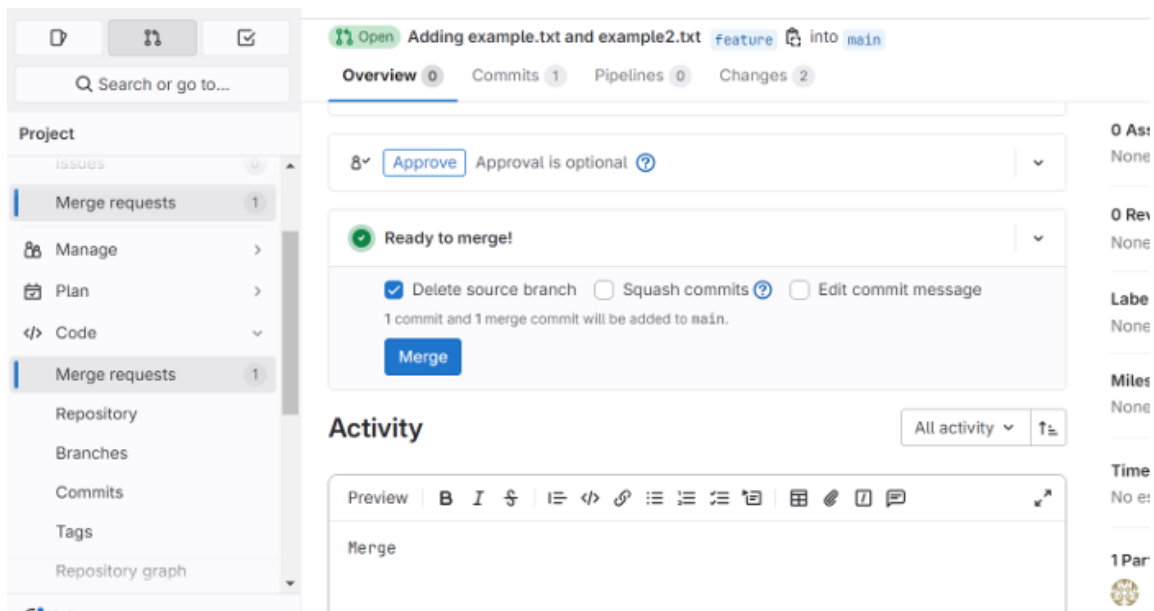
### New merge request

**Source branch**  
final-year2161841/Exp3-Git...  
**feature**  
Adding example.txt and example2.txt  
Omkar1236-bit authored Oct 12, 2024  
b8183cf6

**Target branch**  
final-year2161841/Exp3-Git...  
**main**  
Initial commit  
Omkar1236-bit authored Oct 12, 2024  
9ff4e391

[Compare branches and continue](#)

Review the changes and click "Submit merge request."



## Step 6: Syncing Changes

after the merge request has been merged, update your local repository:

```
VICTUS@LAPTOP-KQ3G1MA9 MINGW64 /d/test/Demo (master)
$ git checkout main
Switched to branch 'main'
Your branch is ahead of 'origin/main' by 1 commit.
(use "git push" to publish your local commits)
```

pull the latest changes from the main branch in GitLab into your local repository :

```
VICTUS@LAPTOP-KQ3G1MA9 MINGW64 /d/test/Demo (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), 898 bytes | 449.00 KiB/s, done.
From https://github.com/prasad26-cse/Demo
* branch      main      -> FETCH_HEAD
   ab292a2..0463f39  main   -> origin/main
Updating a4988e3..0463f39
Fast-forward
```

This command fetches and merges the latest changes from the remote main branch into your local main branch.

Name				Date modified	Type	Size
example				10/16/2024 4:40 PM	Text Document	1 KB
example1				10/16/2024 4:40 PM	Text Document	1 KB
README				10/16/2024 4:37 PM	Markdown Source ...	7 KB