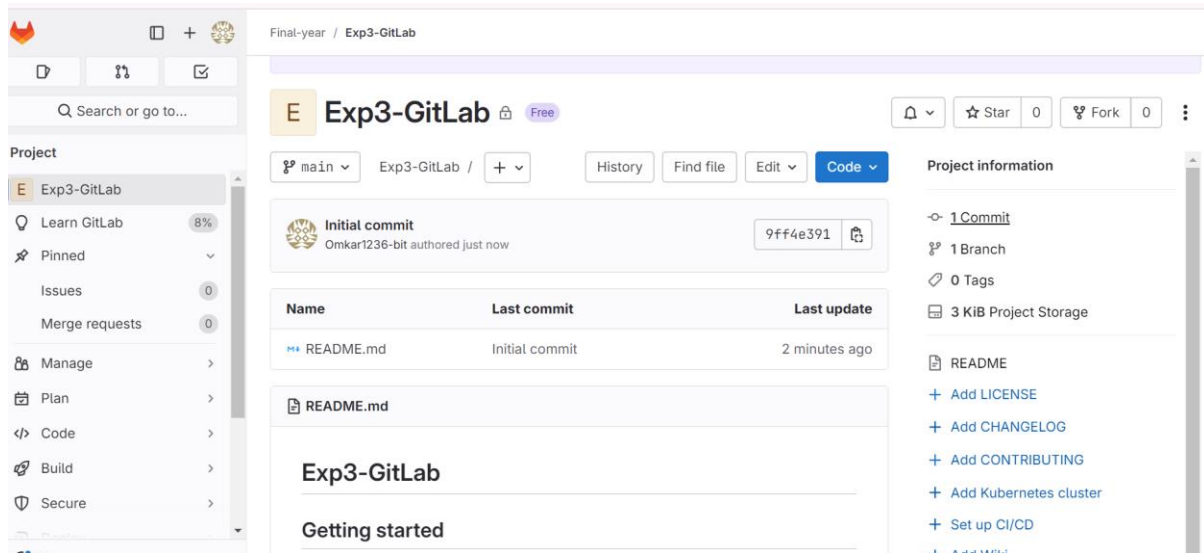


Experiment No. 3

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:

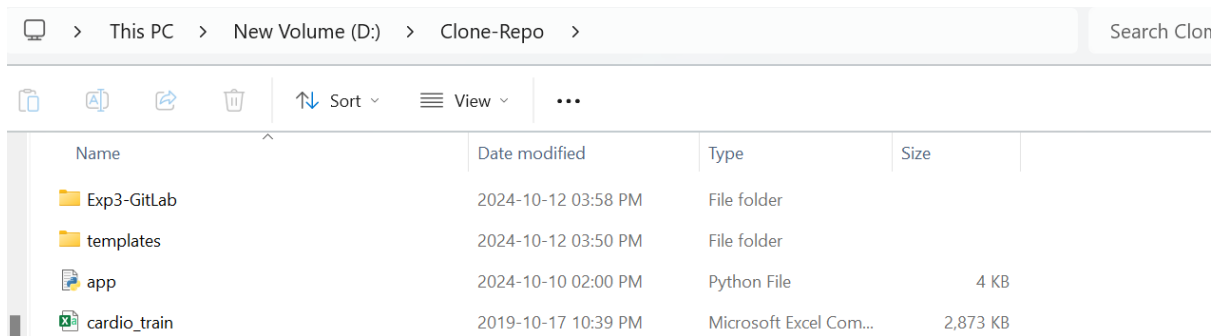
```
OMKAR@LAPTOP-UU9CTA90 MINGW64 ~
$ cd d:

OMKAR@LAPTOP-UU9CTA90 MINGW64 /d
$ cd Clone-Repo

OMKAR@LAPTOP-UU9CTA90 MINGW64 /d/Clone-Repo
$
```

Clone the repository by running the following command:

```
OMKAR@LAPTOP-UU9CTA90 MINGW64 /d/Clone-Repo
$ git clone https://gitlab.com/final-year2161841/Exp3-GitLab.git
Cloning into 'Exp3-GitLab'...
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.
```



Step 3: Making Changes and Creating a Branch

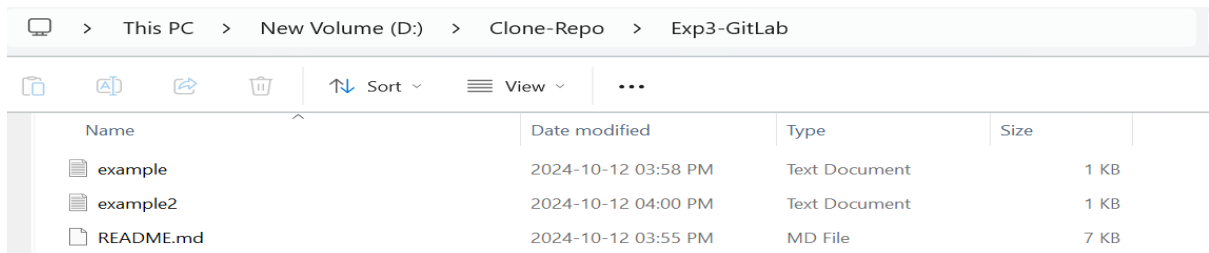
Navigate into the cloned repository:

```
OMKAR@LAPTOP-UU9CTA90 MINGW64 /d/Clone-Repo
$ cd Exp3-GitLab
```

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

```
OMKAR@LAPTOP-UU9CTA90 MINGW64 /d/Clone-Repo/Exp3-GitLab (main)
$ nano example.txt

OMKAR@LAPTOP-UU9CTA90 MINGW64 /d/Clone-Repo/Exp3-GitLab (main)
$ nano example2.txt
```



Check the status of the repository:

```
OMKAR@LAPTOP-UU9CTA90 MINGW64 /d/Clone-Repo/Exp3-GitLab (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
    example2.txt

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

Stage the changes for commit:

```
OMKAR@LAPTOP-UU9CTA90 MINGW64 /d/Clone-Repo/Exp3-GitLab (main)
$ git add example.txt
warning: in the working copy of 'example.txt', LF will be replaced by CRLF the n
ext time Git touches it

OMKAR@LAPTOP-UU9CTA90 MINGW64 /d/Clone-Repo/Exp3-GitLab (main)
$ git add example2.txt
warning: in the working copy of 'example2.txt', LF will be replaced by CRLF the
next time Git touches it
```

Commit the changes with a descriptive message:

```
OMKAR@LAPTOP-UU9CTA90 MINGW64 /d/Clone-Repo/Exp3-GitLab (main)
$ git commit -m "Adding example.txt and example2.txt"
[main b8183cf] Adding example.txt and example2.txt
2 files changed, 3 insertions(+)
create mode 100644 example.txt
create mode 100644 example2.txt
```

Create a new branch named feature:

```
OMKAR@LAPTOP-UU9CTA90 MINGW64 /d/Clone-Repo/Exp3-GitLab (main)
$ git branch feature
```

Switch to the "feature" branch:

```
OMKAR@LAPTOP-UU9CTA90 MINGW64 /d/Clone-Repo/Exp3-GitLab (main)
$ git checkout feature
Switched to branch 'feature'
```

Step 4: Pushing Changes to GitLab

Add the GitLab repository URL as a remote:

```
OMKAR@LAPTOP-UU9CTA90 MINGW64 /d/Clone-Repo/Exp3-GitLab (feature)
$ git remote add origin https://gitlab.com/final-year2161841/Exp3-GitLab.git
error: remote origin already exists.
```

Push the "feature" branch to GitLab:

```
OMKAR@LAPTOP-UU9CTA90 MINGW64 /d/Clone-Repo/Exp3-GitLab (feature)
$ git push origin feature
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 8 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (4/4), 386 bytes | 386.00 KiB/s, done.
Total 4 (delta 0), reused 0 (delta 0), pack-reused 0
remote:
remote: To create a merge request for feature, visit:
remote:   https://gitlab.com/final-year2161841/Exp3-GitLab/-/merge_requests/new?merge_request%5Bsource_branch%5D=feature
remote:
To https://gitlab.com/final-year2161841/Exp3-GitLab.git
 * [new branch]      feature -> feature
```

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

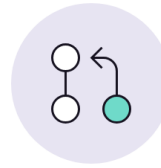
The screenshot shows the GitLab web interface for a repository named 'Exp3-GitLab'. The left sidebar contains navigation links: Project, Merge requests, Manage, Plan, Code, Merge requests (0), Repository (selected), Branches, Commits, Tags, Repository graph, and Compare revisions. The main content area shows the 'feature' branch selected. A commit titled 'Adding example.txt and example2.txt' by 'Omkar1236-bit' is shown, authored 5 minutes ago. Below this, a table lists the files in the commit:

Name	Last commit	Last update
README.md	Initial commit	20 minutes ago
example.txt	Adding example.txt and example2.txt	5 minutes ago
example2.txt	Adding example.txt and example2.txt	5 minutes ago

Below the table, there is a section for 'README.md' and a link to 'Exp3-GitLab'.

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

- Merge requests 0
- Manage >
- Plan >
- Code ▾
- Merge requests 0
- Repository
- Branches
- Commits
- Tags
- Repository graph



Interested parties can even contribute by pushing commits if they want to.

New merge request

New merge request

Compare branches and continue

A screenshot of the GitHub web interface. At the top is the GitHub logo (an orange cat face). To its right are icons for a square, a plus sign, and a circular profile picture. Below these is a navigation bar with three buttons: a document icon, a fork icon, and a checkmark icon. Underneath the navigation bar is a search bar with the placeholder text "Search or go to...". The main content area is titled "Project" and contains a list of "Issues". The first issue is "Merge requests" with a count of "1" in a blue box. Below the issue list are four menu items: "Manage" (with a person icon), "Plan" (with a calendar icon), "Code" (with a code icon), and "Repository" (with a folder icon). The "Merge requests" item is highlighted with a blue bar on the left. Below the menu items are links for "Repository", "Branches", "Commits", "Tags", and "Repository graph".

Merge

1 Par



Step 6: Syncing Changes

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

```
OMKAR@LAPTOP-UU9CTA90 MINGW64 /d/Clone-Repo/Exp3-GitLab (feature)
$ 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)

OMKAR@LAPTOP-UU9CTA90 MINGW64 /d/Clone-Repo/Exp3-GitLab (main)
```

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

```
OMKAR@LAPTOP-UU9CTA90 MINGW64 /d/Clone-Repo/Exp3-GitLab (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), 279 bytes | 55.00 KiB/s, done.
From https://gitlab.com/final-year2161841/Exp3-GitLab
* branch          main          -> FETCH_HEAD
  9ff4e39..ba5e37d main          -> origin/main
Updating b8183cf..ba5e37d
Fast-forward
```

Switch to the main branch (if you're not already on it):

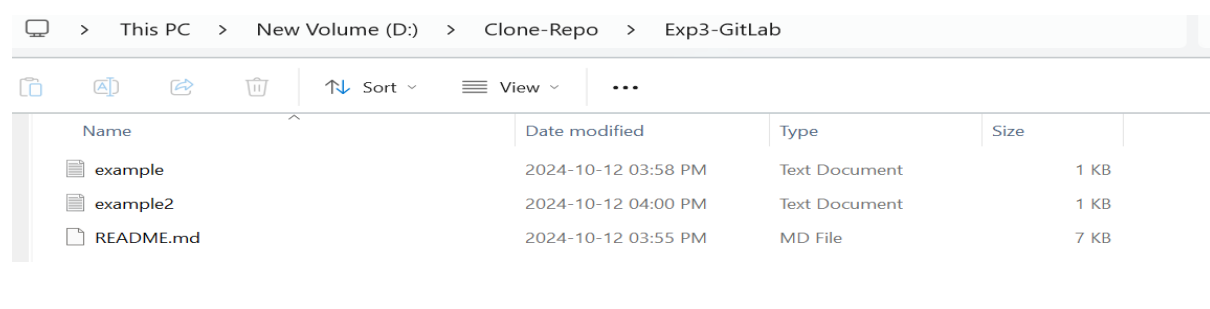
```
OMKAR@LAPTOP-UU9CTA90 MINGW64 /d/Clone-Repo/Exp3-GitLab (feature)
$ git checkout main
Switched to branch 'main'
Your branch is ahead of 'origin/main' by 1 commit.
(use "git push" to publish your local commits)

OMKAR@LAPTOP-UU9CTA90 MINGW64 /d/Clone-Repo/Exp3-GitLab (main)
```

Pull the latest changes from the main branch on GitLab:

```
OMKAR@LAPTOP-UU9CTA90 MINGW64 /d/Clone-Repo/Exp3-GitLab (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), 279 bytes | 55.00 KiB/s, done.
From https://gitlab.com/final-year2161841/Exp3-GitLab
* branch          main          -> FETCH_HEAD
  9ff4e39..ba5e37d main          -> origin/main
Updating b8183cf..ba5e37d
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	2024-10-12 03:58 PM	Text Document	1 KB
example2	2024-10-12 04:00 PM	Text Document	1 KB
README.md	2024-10-12 03:55 PM	MD File	7 KB