PRACTICAL LAB MST

# lab MST\_1

## Name-Sandhya

## UID-22bdo10074

## lab mst question

add

# Steps:

# Repository created

1. create repository on git-hub and make it public.

[LAB\_mst]( https://github.com/22bdo10074/MST\_1)

2. Add remote and then pull on local repository.

### git command:

$ git remote add origin https://github.com/22bdo10074/MST\_1.git

$ git push -u origin master

3. Adding Collaborators:

On GitHub, go to the repository settings and navigate to "Collaborators".

Add other group members by their usernames.

4. Cloning the Repository:

On each member's machine, open a terminal and navigate to their desired directory.

Clone the repository using the URL:

### git command:

git clone https://github.com/22bdo10074/MST\_1.git

5. Verifying Local Repository:

git status

6. Local Commit and Push:

o Make a change (e.g., edit a file).

o Stage the changes: git add <filename> (or git add . for all changes)

o Commit the changes with a message: git commit -m "<message>"

o Push the commit to the remote repository: git push

o Verifying Pushed Commit:

### git command:

git pull

7.Check the commit history using:git log

SHA-1 Consistency:

### Observe the commit SHA-1 hash in the git log output. This hash is unique and consistent across all repositories due to Git's content addressing.

8.Racing Commits and Merge:

o Make a local edit (e.g., modify a file).

o Make a local edit in a different file (crucial to avoid immediate conflict).

o Commit and push: git commit -m "<message>" && git push

o Attempt to push: git push (This will fail due to out-of-date local repository)

9.Pull, Merge Conflict, and Resolution:

### git command:

Run: git pull

This will initiate a merge and potentially encounter a conflict (if edits overlap).

The conflicted file will be highlighted with markers.

Manually edit the file to resolve the conflict (choose desired changes).

Stage the fix: git add <filename>

Commit the resolved conflict: git commit -m "Resolved merge conflict"

### screenshots:

![Screenshot (339)](https://github.com/22bdo10074/MST\_1/assets/142095565/b9f6cb36-4d30-4d52-bde4-ed10717c0f39)

![Screenshot (339)](https://github.com/22bdo10074/MST\_1/assets/142095565/77a5144d-6612-4c35-9580-ead9a824c7ce)

![Screenshot (340)](https://github.com/22bdo10074/MST\_1/assets/142095565/d7241cd1-7aad-4454-87a4-e96e104c23b4)

![Screenshot (341)](https://github.com/22bdo10074/MST\_1/assets/142095565/af75e37b-34a6-414b-9673-07c021b953dd)