

A1. Demonstrate and Create project in local and remote repository using GitBash and GitHub and apply init, status, log, add, commit, push, config, clone and reset commands on repository.

Git **init** command:

Description

Initializes a new Git repository in the current directory by creating a hidden **.git** folder containing all necessary configuration files and version history.

Syntax : git init

Example : git init

Git **status** command:

Description

Displays the current state of the working directory and the staging area. It shows which files are modified, staged, or untracked.

Syntax : git status

Example : git status

Git **log** command:

Description

Lists all previous commits in reverse chronological order along with details such as commit ID, author, timestamp, and commit message.

Syntax : git log

Example : git log

Git **add** command:

Description

Adds new or modified files to the staging area, preparing them to be included in the next commit.

Syntax : git add <filename>

git add .

Example : git add myfile.txt

git add .

Git **commit** command:

Description

Saves all staged changes permanently to the local repository with a descriptive message.

Syntax : git commit -m "Commit message"

Example : git commit -m "Initial commit"

Git **push** command:

Description

Uploads all committed changes from the local repository to a remote repository, such as GitHub.

Syntax : git push

Example : git push origin main

Git **config** command:

Description

Sets configuration details such as username, email, or editor for identifying the author of commits.

Syntax : git config --global user.name "Your Name"

git config --global user.email "your.email@example.com"

Example : git config --global user.name "lohithbandla"

git config --global user.email "lohithbandla5@gmail.com"

Git **clone** command:

Description

Creates a local copy of an existing remote repository, including all tracked files and commit history.

Syntax : git clone <repository_url>

Example : git clone https://github.com/lohithbandla/todo_cli.git

Git Reset command:**Description**

Used to unstage files or undo commits. It can reset the staging area or move the current HEAD to a specific commit.

Syntax : git reset

Example : git reset myfile.txt

Git user configuration details

```
Lohith@LAPTOP-DHC2QLG2 MINGW64 ~
$ git config --global user.name "lohithbandla"
\
Lohith@LAPTOP-DHC2QLG2 MINGW64 ~
$ git config --global user.email "lohithbandla5@gmail.com"

Lohith@LAPTOP-DHC2QLG2 MINGW64 ~
$ git config --global --list
user.name=lohithbandla
user.email=lohithbandla5@gmail.com

Lohith@LAPTOP-DHC2QLG2 MINGW64 ~
$ |
```

Configuration	Execution	Viva	Total	Verified By