

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"
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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