

PROJECT MANAGEMENT WITH GIT

1.Setting Up and Basic Commands :

- ❖ Initialize a new Git repository in a directory. Create a new file and add it to the staging area and commit the changes with an appropriate commit message.

Step 1:

- ❖ `mkdir Git` -> Creates a folder/directory in the present working directory.
- ❖ `cd Git` -> Changes the directory to the git folder which was created.

Step 2:

- ❖ `git init` -> Initializes a empty git repository.
- ❖ We can see the `.git` folder created in the git folder, in some cases the file is hidden and to see that hidden file we need to click on view the hidden files.

Step 3:

- ❖ `Vim file.txt` -> Creates a empty filr of txt extension in the current directory.
- ❖ Writing or adding content to the file.
- ❖ `Git add ./` or `git add <file name>` -> Stage the file with add . or add <file name>. add .will stage the whole files in the current directory and are ready to commit
- ❖ Commit the file with appropriate commit message.

Step 4:

- ❖ `git log` -> Displays all the history of commits with commit messages along with the author name and email.
- ❖ Every commits has a unique commit ID.

Step 5:

- ❖ If we want to add anything else to exitsting file, then we open it add or write the contents.
- ❖ Then again stage the file and commit it with appropriate commit message.

Step 6:

- ❖ `git status` -> It checks the status ,like on which branch we are and is there any changes made which are not committed.
- ❖ If no any other changes has been made after recent commit, it displays the working tree is clean.

Step 7:

- ❖ `git log` -> This will display the history of the commit.

```
vtu@vtu-Vostro-3888:~$ mkdir akshata001
vtu@vtu-Vostro-3888:~$ cd akshata001
vtu@vtu-Vostro-3888:~/akshata001$ git init
Initialized empty Git repository in /home/vtu/akshata001/.git/
vtu@vtu-Vostro-3888:~/akshata001$ touch dot.txt
vtu@vtu-Vostro-3888:~/akshata001$ ls
dot.txt
vtu@vtu-Vostro-3888:~/akshata001$ git command -m"file created"
git: 'command' is not a git command. See 'git --help'.
vtu@vtu-Vostro-3888:~/akshata001$ git log
fatal: your current branch 'master' does not have any commits yet
vtu@vtu-Vostro-3888:~/akshata001$ vi pk.txt
vtu@vtu-Vostro-3888:~/akshata001$ git status
On branch master

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)

        dot.txt
        pk.txt

nothing added to commit but untracked files present (use "git add" to track)
vtu@vtu-Vostro-3888:~/akshata001$ git log
fatal: your current branch 'master' does not have any commits yet
vtu@vtu-Vostro-3888:~/akshata001$ git branch
vtu@vtu-Vostro-3888:~/akshata001$ git commit
On branch master

Initial commit

Untracked files:
  dot.txt
  pk.txt

nothing added to commit but untracked files present
```

```
vtu@vtu-Vostro-3888:~/akshata001$ git add .
vtu@vtu-Vostro-3888:~/akshata001$ git branch
vtu@vtu-Vostro-3888:~/akshata001$ git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)

        new file:   dot.txt
        new file:   pk.txt

vtu@vtu-Vostro-3888:~/akshata001$ git config --global user.name Akshata
vtu@vtu-Vostro-3888:~/akshata001$ git config --global user.emailid akshu@gmail.com
vtu@vtu-Vostro-3888:~/akshata001$ git log
fatal: your current branch 'master' does not have any commits yet
vtu@vtu-Vostro-3888:~/akshata001$ git commit -m"added a file"
[master (root-commit) 65dad6f] added a file
 2 files changed, 1 insertion(+)
 create mode 100644 dot.txt
 create mode 100644 pk.txt
vtu@vtu-Vostro-3888:~/akshata001$ git status
On branch master
nothing to commit, working tree clean
vtu@vtu-Vostro-3888:~/akshata001$ vi pk.txt
vtu@vtu-Vostro-3888:~/akshata001$ git log
commit 65dad6fe7c317be81888bc1167f6241524c528a8 (HEAD -> master)
Author: Akshata <nnn@gmail.com>
Date:   Sat Nov 30 15:23:03 2024 +0530

    added a file
```