TASK: CREATE A TUTORIAL FOR GIT AND GITHUB WITH THE COMMANDS.

What is Git?

1. Git is a open source tool version control tool that helps developers to manage the code.
2. It is also called a source code Management tool.
3. Git is a version control tool(VCT).

What are Git Command Line?

Git command line tools are command prompt use to interact with Git .They help to create repositories, tract changes ,collaborate with others and manage project history.

Some git commands are-

- mkdir
- Cd
- git init
- touch
- git add
- git clone
- git status
- git log
- git commit

First Install Git

Step1 -Go to google and type Git and then click to the first link and download Git for mac , linux or windows.

Step 2-Then after that open Command shell to start the Git.

Step 3- To know the Git version we can type $ git --version.

```
abhisek@abhisek:~/Desktop$ git --version
git version 2.43.0
abhisek@abhisek:~/Desktop$
```

Git Setup

• Sets your Git username.

• **--global** makes it apply to all your repositories on your system.

$ git config --global user.name "Abhisek Swain"

•Sets your Git email globally. This is important for associating commits with your GitHub account

$ git config --global user.email "swainabhisekcr7@gmail.com

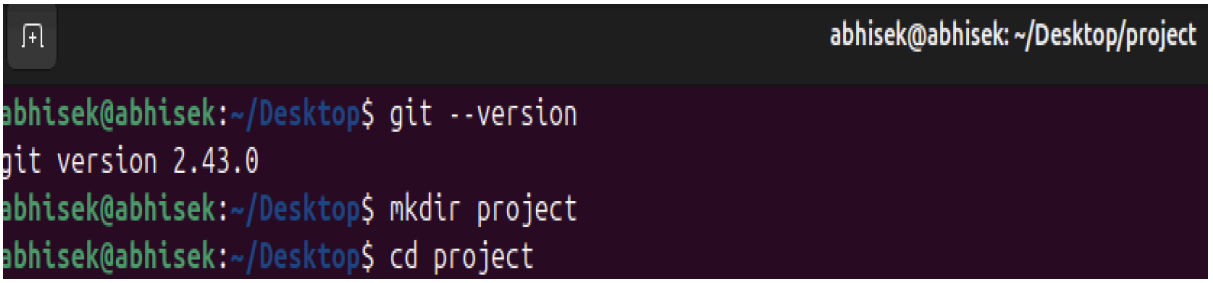
Create a Git folder

Step1- Go to terminal and type $ mkdir and project name and it makes a new directory

```
abhisek@abhisek:~/Desktop$ git --version
git version 2.43.0
abhisek@abhisek:~/Desktop$ mkdir project
```

New folder is created

Step2- Write $ cd to change the current working directory.



Create a Git Repository

Initialize a Repository

Here we will use **$** git init . It is a new git repository in the current directory .

```
abhisek@abhisek:~/Desktop/project$ git init
Reinitialized existing Git repository in /home/abhisek/Desktop/project/.git/
```

Check Repository Status

Show the status of changes as untracked, modified or staged.

$ git status

```
abhisek@abhisek:~/Desktop/project$ git status
On branch master

No commits yet

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

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

Cloning a Repository

Retrieve an entire repository from
a hosted location via URL.

$git clone [repository - url]

```
abhisek@abhisek:~/Desktop/project$ git clone https://github.com/Abhisek7cr/Resume-Builder
Cloning into 'Resume-Builder'...
remote: Enumerating objects: 27, done.
remote: Counting objects: 100% (27/27), done.
remote: Compressing objects: 100% (24/24), done.
remote: Total 27 (delta 2), reused 0 (delta 0), pack-reused 0 (from 0)
Receiving objects: 100% (27/27), 932.42 KiB | 2.39 MiB/s, done.
Resolving deltas: 100% (2/2), done.
```

Add files to staging

Add changes in a file to the staging area.

$ git add <file>

```
Mac:Assignment 2 abhisekswain$ git add file.txt
Mac:Assignment 2 abhisekswain$ git commit -m "Initial commit: Added file.txt"
[master (root-commit) 9a6d304] Initial commit: Added file.txt
 1 file changed, 1 insertion(+)
 create mode 100644 file.txt
```

Committing Changes

Commit the staged changes to the local repository with a descriptive message.

$ git commit -m "message"

Display commit history

Display the commit history.

$ git log

Print working Directory

Pwd command stands for "Print working directory",displays the full path of your current directory in the terminal code.

$ pwd

Create a file

This command is used to create file in git bash

$ touch

Connect to GitHub

Links the local repository to a remote one, usually on GitHub, for pushing and pulling code.

$ git remote add origin https://github.com/username/repo-name

Create a new branch

Create a new branch from the current HEAD, Useful for feature development without affecting the main code.

$ git branch <new-branch>

Checkout

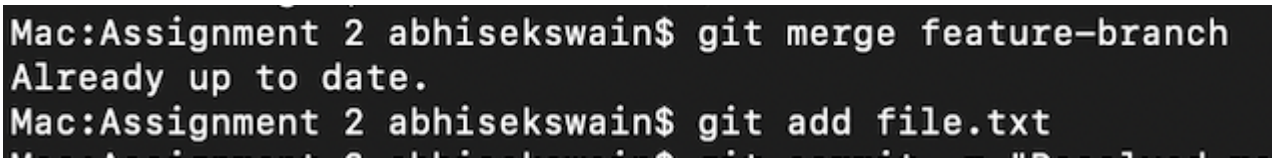
Switches the working directory to the specified branch.

$ git checkout <new-branch>

Merge Branches

Combines the specified branch into the current branch, integrating changes made in the other branch.

$ Git merge new-branch



Delete Branches

To delete a branch locally

This will delete the branch only if it has already been fully merged .

$ git branch -d branch_name

Lists all the files

Lists all tracked files in the current repository

$ git ls-files

Change directory

To Change the current working directory

$ cd folder-name

Move one level up

It is used to move up one level in the directory structure

$ cd ..

Download commits

It is used to download commits, branches, and tags from a remote repository without changing your local working directory or branch.

$ git fetch