Git:

Git means distributed system version control system which basically means
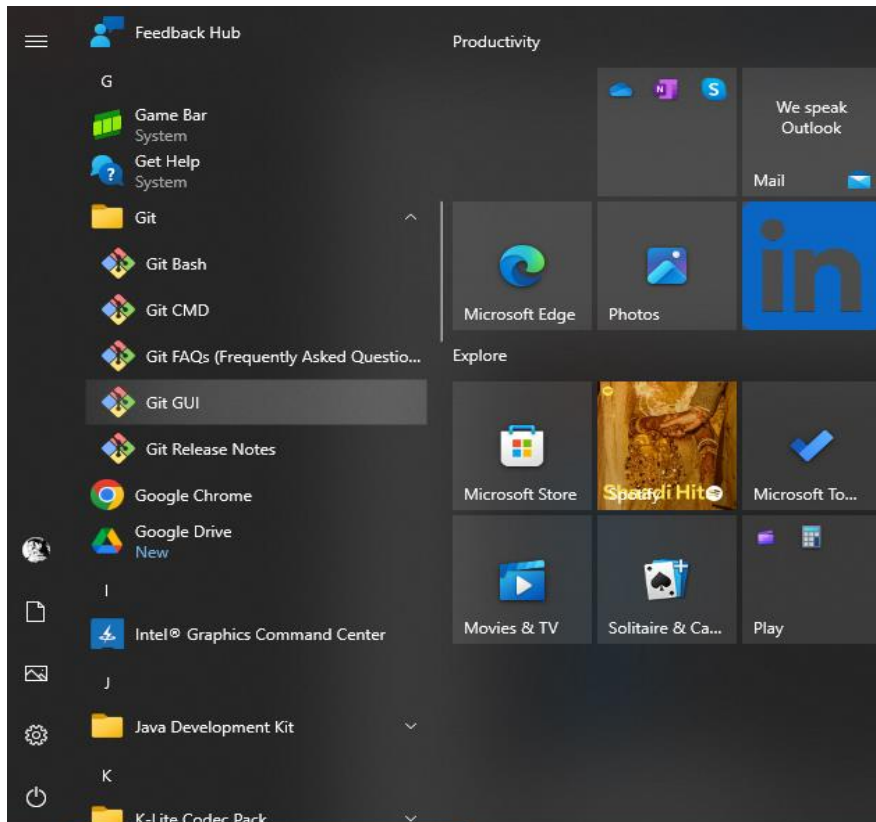
1- It is a kind of a system which records changes you make to your files over time.
2- Many people can easily collaborate on your project (if you working on a team/group) project and can have their own version on their computer as well work further.
3- We can recall any version of those files at any given time.

GitHub:

GitHub acts like a server to host our projects so that we can share our code to fellow developers, project team members etc.
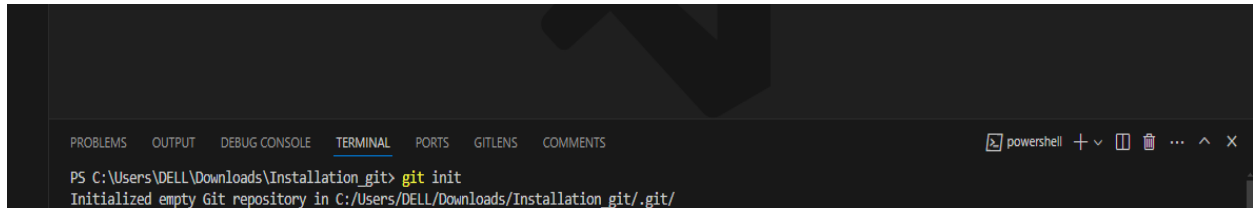
Starting with GitHub Basics:

First, we need to install Git

Stages in the Git Workflow:

- ## Modified:

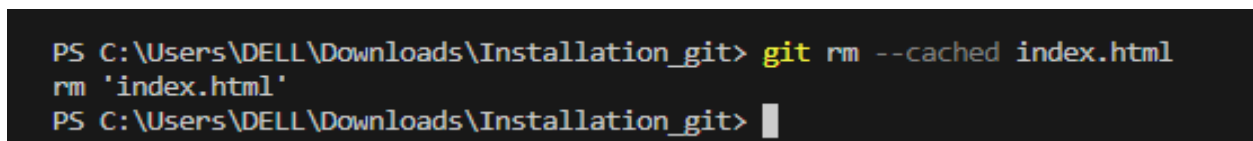1- Firstly, initialize git repository


```
PS C:\Users\DELL\Downloads\Installation_git> git init
Initialized empty Git repository in C:/Users/DELL/Downloads/Installation_git/.git/
```
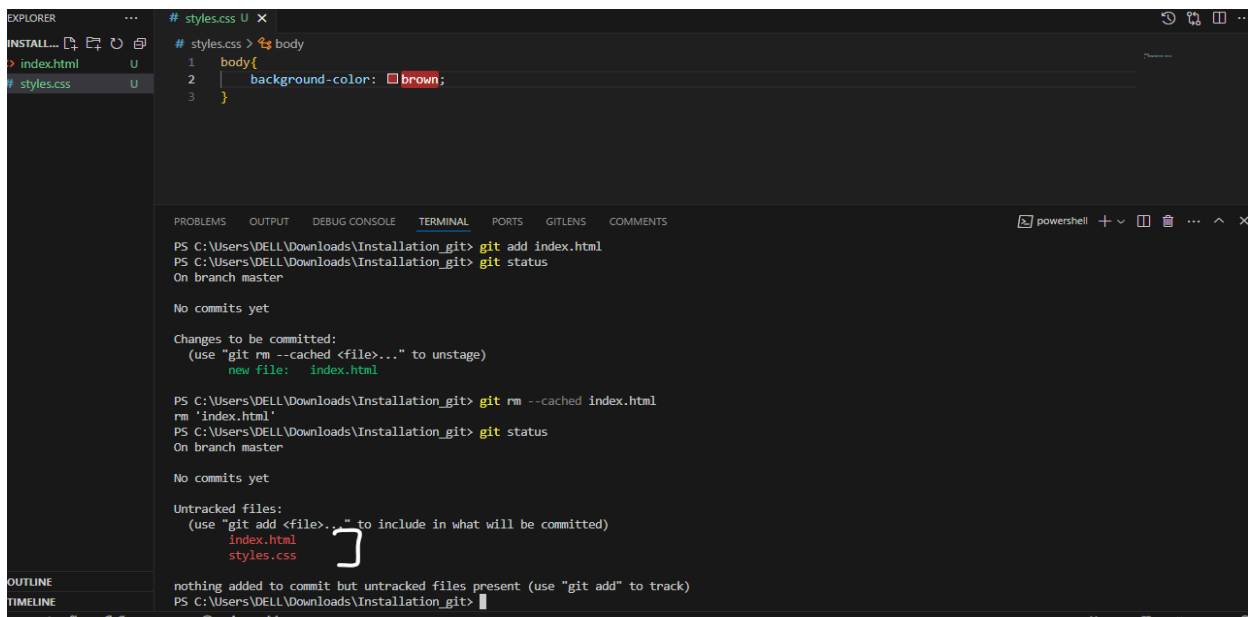
2- Creating a new file (**index.html**)


```
Initialized empty Git repository in C:/Users/DELL/Downloads/Installation_git/.git/
PS C:\Users\DELL\Downloads\Installation_git> New-Item -Path .\.git\ -Name "index.html" -ItemType "File"
```

3- Removing file (index.htm) from staging area and further making a new file **styles.css**


```
PS C:\Users\DELL\Downloads\Installation_git> git rm --cached index.html
rm 'index.html'
PS C:\Users\DELL\Downloads\Installation_git>
```

Making a new file (**styles.css)**

- ## **Staging:**

   In the staging phase, we add these new files after creating or if we did some changes to our existing file.

   Using git add and git add.

Here first we added our index.html file

```
PS C:\Users\DELL\Downloads\Installation_git\.git> cd..
PS C:\Users\DELL\Downloads\Installation_git> git add index.html
PS C:\Users\DELL\Downloads\Installation_git> git status
On branch master

No commits yet

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

PS C:\Users\DELL\Downloads\Installation_git>
```

Here we added styles.css **git add.** means to add all those files we created or changed.

```
PS C:\Users\DELL\Downloads\Installation_git> git status
On branch master

No commits yet

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

nothing added to commit but untracked files present (use "git add" to track)
PS C:\Users\DELL\Downloads\Installation_git> git add .
PS C:\Users\DELL\Downloads\Installation_git> git status

No commits yet

Changes to be committed:
        new file:   styles.css
```

- ## **Commit:**


```
                config
PS C:\Users\DELL\Downloads\Installation_git> git config --global user.email "memoonabasharat23@gmail.com"
PS C:\Users\DELL\Downloads\Installation_git> git congig --global user.name  "Memoona"
git: 'congig' is not a git command. See 'git --help'.

The most similar command is
        config
PS C:\Users\DELL\Downloads\Installation_git> git config --global user.name  "Memoona"
PS C:\Users\DELL\Downloads\Installation_git> git commit -m "My first commit"
[master (root-commit) 4f71266] My first commit
 2 files changed, 3 insertions(+)
 create mode 100644 index.html
 create mode 100644 styles.css
PS C:\Users\DELL\Downloads\Installation_git>
```

Git log:


```
PS C:\Users\DELL\Downloads\Installation_git> git log
commit 4f712663a6fca616a1cbd28e7ad03ebd90e18099 (HEAD -> master)
Author: Memoona <memoonabasharat23@gmail.com>
Date:   Fri Jun 14 15:55:25 2024 +0500

    My first commit
PS C:\Users\DELL\Downloads\Installation_git>
```

To check commits:


```
PS C:\Users\DELL\Downloads\Installation_git> git log --oneline
4f71266 (HEAD -> master) My first commit
PS C:\Users\DELL\Downloads\Installation_git>
```