Aim: Git lifecycle description

Theory:

Stages in GIT Life Cycle -> Files in a Git project have various stages like Creation, Modification, Refactoring, and Deletion and so on. Irrespective of whether this project is tracked by Git or not, these phases are still prevalent. However, when a project is under Git version control system, they are present in three major Git states in addition to these basic ones. Here are the three Git states:

- Working directory
- Staging area
- Git directory

Working Directory ->
Consider a project residing in your local system. This project may or may not be tracked by Git. In either case, this project directory is called your Working directory.
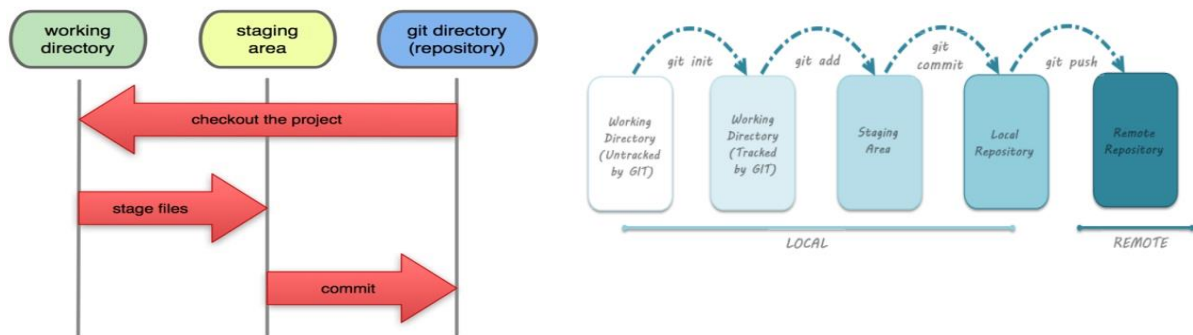
Staging Area ->
Staging area is the playground where you group, add and organize the files to be committed to Git for tracking their versions

Git Directory ->
Now that the files to be committed are grouped and ready in the staging area, we can commit these files. So, we commit this group of files along with a commit message explaining what is the commit about. Apart from commit message, this step also records the author and time of the commit. Now, a snapshot of the files in the commit is recorded by Git. The information related to this commit is stored in the Git directory.
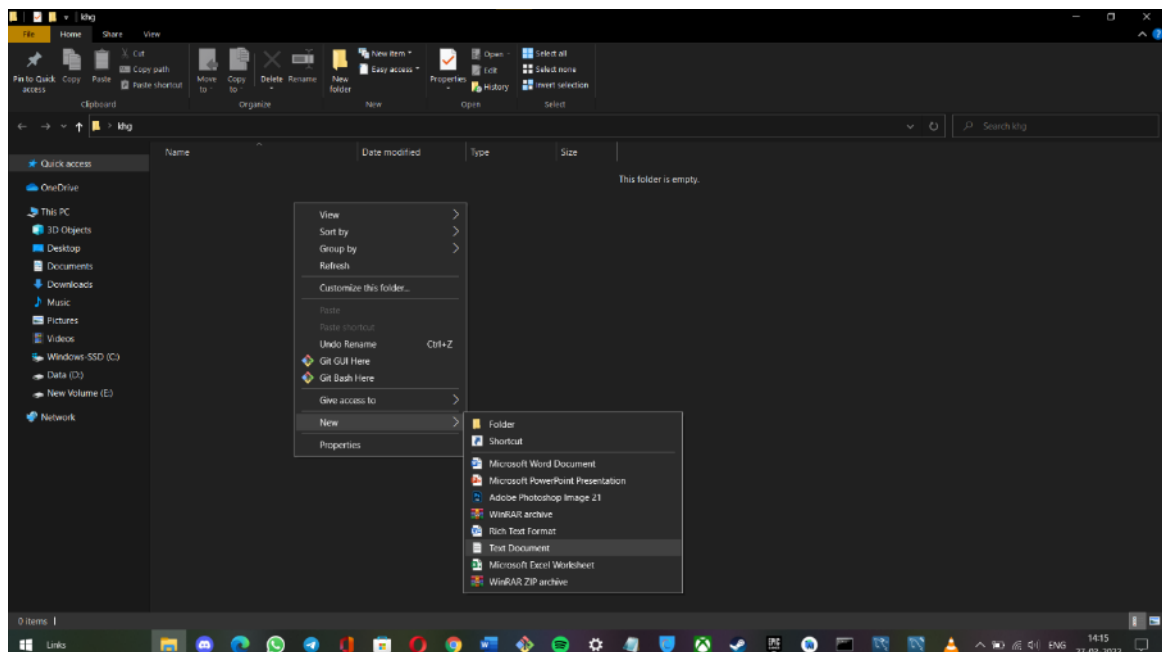
Remote Repository-> means mirror or clone of the local Git repository in GitHub. And pushing means uploading the commits from local Git repository to remote repository hosted in GitHub.

Snapshots –

```
PS C:\Users\HP\OneDrive\Desktop\Coding-Ninjas-java-> git status
On branch master
Your branch is up to date with 'origin/master'.

nothing to commit, working tree clean
PS C:\Users\HP\OneDrive\Desktop\Coding-Ninjas-java-> |
```


CS181

git

Name	Date modified	Type	Size
📁 .git	10-04-2022 11:30	File folder	
📄 GIT.txt	09-04-2022 21:45	Text Document	2 KB

```
PS C:\Users\HP\OneDrive\Desktop\git> git status
fatal: not a git repository (or any of the parent directories): .git
PS C:\Users\HP\OneDrive\Desktop\git> git init
Initialized empty Git repository in C:/Users/HP/OneDrive/Desktop/git/.git/
PS C:\Users\HP\OneDrive\Desktop\git> ls
```

```
PS C:\Users\HP\OneDrive\Desktop\git> ls


    Directory: C:\Users\HP\OneDrive\Desktop\git


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
-a----        09-04-2022     21:45           1061 GIT.txt


PS C:\Users\HP\OneDrive\Desktop\git> git add GIT.txt
PS C:\Users\HP\OneDrive\Desktop\git> git commit -m "ADDED GIT.TXT FILE"
[master (root-commit) d8e1c35] ADDED GIT.TXT FILE
 1 file changed, 20 insertions(+)
 create mode 100644 GIT.txt
PS C:\Users\HP\OneDrive\Desktop\git> git log
commit d8e1c351e5af2c814330dca7e7753aacec572a4d (HEAD -> master)
Author: Aaryan Sood <aaryan0020.be21@chitkara.edu.in>
Date:   Sun Apr 10 11:29:09 2022 +0530

    ADDED GIT.TXT FILE
```

```
PS C:\Users\HP\OneDrive\Desktop\git> git status
On branch master
nothing to commit, working tree clean
PS C:\Users\HP\OneDrive\Desktop\git> git branch
* master
PS C:\Users\HP\OneDrive\Desktop\git> |
```

THANKYOU

GITHUB PROFILE :

https://github.com/aaryansood2512chitkara

GITHUB ORGANISATION REPOSITORY LINK:

https://github.com/Group08-Chitkara-University/2110990020