

Git: -

- It is Source code management tool (SCM).
- It is distributed VCM.

Git is a powerful version control system with a wide range of commands to manage repositories,

branches, commits, and other elements of the version control process. Here are some examples of common Git commands:

GITHUB/GITLAB : are registry's, GitHub/GitLab, Inc. is an Internet hosting service for software development and version control using Git.

Other registries:

- ACR – AZURE CLOUD REGISTRY
- GCR – GOOGLE CLOUD REGISTRY
- ECR – ELASTIC CONTAINER REGISTRY (AWS)

Git commands:-

1)init:-

Initialize a Git repository in the current directory.

```
[] git init
```

2) clone: -

Clone a remote repository to the local machine/ server

```
[] git clone https://github.com/user/repo.git
```

```
[]git clone --branch branch_name https URL
```

3)add: -

Add changes to the staging area.

```
[] git add file.txt
```

4)commit: -

Create a new commit with the changes in the staging area.

```
[] git commit -m "Add file.txt"
```

5) push: -

Send the commits to a remote repository.

```
[] git push origin master
```

6) pull: -

Fetch and merge changes from a remote repository.

```
[] git pull origin master
```

7) Creating branch: -

Create and manage branches.

```
[] git branch new_branch
```

8) listing branches:

```
[]git branch
```

```
*master
```

```
Sub branch1
```

9) checkout:-

Switch to a different branch or commit.

```
[] git checkout new_branch
```

10)creating branch and checkout to created branch:

```
[]git checkout -b newbranch
```

11) merge:-

Merge changes from one branch into another.

```
[] git merge new_branch
```

12) log: -

Display the commit history of a repository.

```
[] git log
```

13) diff: -

Show the differences between commits, branches, or files.

```
[] git diff HEAD^ HEAD
```

14) stash: - The `git stash` command takes your uncommitted changes (both staged and unstaged), saves them away for later use, and then reverts them from your working copy

```
[] git stash
```

15) reset: -

Undo commits and restore the repository to a previous state.

```
[] git reset --hard HEAD^
```

16) tag: -

Add a tag to a specific commit.

```
[] git tag v1.0
```

17) .gitignore :-

if you want to ignore files with the extension of .txt, .jpg, .log we will mention this extension name in .gitignore file

```
[]vi .gitignore
```

*.log (if we want to ignore all files which are having .log extension)

Secret.txt (if we want to ignore particular file, we will give filename)