

Assignment Question

Git and GitHub

1.What is Git ?

Ans.Git is a popular distributed version control system(VCS), It was created by Linus Torvalds in 2005 and has been maintained by Junio Hamano.

2.What do you understand by the term 'Version Control system'?

Ans.It is a system that records changes to a file or set of files over time, so that we can recall specific versions later, i.e., for every source code changes in a file a new version will be created.

3.What is GitHub?

Ans.It is a repository. It is the largest host of source code in the world. It is used to store/maintain the source code of the project. It is one of the popular git server tool.

4.Mention some popular Git hosting services?

Ans.Some of the git hosting services are : Github, Gitlab, BitBucket, Gitblit,....

5.Different types of Version Control Sysem?

Ans.There are 3 types of Version Control System:

1. Local Version Control System (LVCS):It is used to maintain the file version and retrieve the files based on specific

version. **2. Centralised Control System (CVCS):** Developers can collaborate and do the changes eg: CVS, SubVersion, Perforce, etc. Centralised Version Server will have a single server that contains all the version files. No more clients connect to CVCS and check out for files. For many years this has been the standard version control system. CVS always gets the latest code but not the entire history of the project. This is a major drawback of SVN. To resolve this problem we need to use Distributed Version Control System **3. Distributed Version Control System (DVCS):** DVCS are Git, Mercurial, Darcs, Bazaar, ... etc. Developers don't check out the latest snapshot of the files rather they fully mirror the repository including its full history. If the main server dies, then the local system will maintain a copy of the main repository which has full backup of data. If the remote repository is down, then the developer can make changes in the local repository and when the main repository is up the code can be pushed to remote repository from local repository.

6. What benefits come with using GIT?

Ans. Git is used for

- a. Tracking code changes
- b. Tracking who made changes like history of the files
- c. Coding Collaborations.

7. What is a GIT repository?

Ans. GIT Repository is a storage location to store a file or a source

code.

8.How can you initialize a repository in a GIT?

Ans. There are few steps to initialize a repository in a GIT:

- 1.Create a new repository on GitHub.com. ..
- 2.Open Terminal
TerminalGit Bash.
- 3.Change the current working directory to your local project.
- 4.Use the init command to initialize the local directory as a Git repository. ...
- 5.Add the files in your new local repository. ...
- 6.Commit the files that you've staged in your local repository.