Assignment - 2

Q-1 what is Git ?

- Git is a version control system,
- which is used to track all the changes and update in a file.

- It is used to share any file (local) to remote so that any one can see and pull it to this own pc.

- Git is a system which help to rewrite the code or change once there would be any mistake.

Q-2 version control system ?

- Here a version control refers to a software tool that helps manage and track changes to files and directories every time.

- It provide a systematic way to keep track of different version of files, allowing multiple developers to work on the same project simultaneouly.
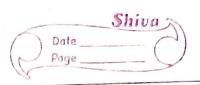
Q-3 what is GITHUB?

GITHUB is a web-based hosting service and platform for version control using git. It provide a user-friendly interface and a set of collaborative features that makes it easier for developer to work together on any projects.

Q-4 Mention some popular Git Hosting Services?

There are following Git Hosting services.

ⓐ Git Lab - It provide both cloud-based and self-hosted options.

ⓑ Bitbucket - It also offers/provide Both cloud-based and self-hosted option.

ⓒ Azure Devops - (Visual Studio Team Services) It is a development tool offered by Microsoft.

ⓓ Sourceforge - It offers features like repositistries, bug tracking, mailing lists,

Q-5 Different types of version control?

① Centralized Version Control System –

a Centralized version control system,
CVCS) is a type of version control system
where all the files and their Repetitive
versions are stored in a central server
or repository.

- Architecture – In a CVCS, there is a single
  central server or repository that
  store all the files and their versions.

- Network Dependency – CVCS requires a
  network connection to access the central
  server.

- Collaboration – CVCS allows users to
  collaborate in a project and make changes
  in there local file and commit it
  to the central server.

- Access control – CVCS manage access
  control, determining which user have
  read or write permission for the file.

- Single point failure issue —

Ans— As the central server, is crucial for most operation, if it become unavailable or crash, the user would not able to access any file or new repository from central server.

ⅱ) **Decentralized Version Control System**

- A DVCS, is a version control system, where as a user has a comple <u>copy</u> of the <u>repository</u>, including <u>entire</u> <u>history</u> of the project.

- In DVCS user can perform version control operation locally without relying on a central server.

Q—6: Benifits of using Git —

- tracking about change with time and by whom

- Re collecting the previous version of file.

- eascily pushing the file into remote repository.

- easily clone any repository into the local system.

- update and modification in local repository become easy.

Q-7 what is a git Repository?

Ans- a Git repository, neffered as a "repo", is a data structure that hold all the files, directories and their complete history of a version for a particular project.

Q-8 Initialization a repository in Git?

Step-1 first save the change made in any local file

Step-2 then open command prompt in the same folder where you are writing someing / something.

Step-3 write command git init and enter.

Step-4 Now an empty git will initialized into the open folder.