1. What is a version control system?

A. Version control systems are a category of software tools that helps in recording changes made to files by keeping a track of modifications done in the code. And we can also rollback when we got failed in the newer version.

2. Why did a version control system develop? What were the necessities?

A. Version control is essential to track, organize and control changes over source code and avoid confusion**,** especially for large, fast-changing projects. Version control systems are essential tools when integrated with a well-defined version management process.

3. Define the different types of version control systems.

A. Types of Version Control Systems: 1 Local Version Control Systems 2 Centralized Version Control Systems 3 Distributed Version Control Systems.

4. List a few differences between the two version control system types?

A. CENTRALISED VERSION CONTROL SYSTEM:

In centralized source control, there is a server and a client. The server is the master repository that contains all of the versions of the code. To work on any project, firstly user or client needs to get the code from the master repository or server. So the client communicates with the server and pulls all the code or current version of the code from the server to their local machine. Centralized version control is easier to learn than distributed.

Distributed Version Control System:

In distributed version control most of the mechanism or model applies the same as centralized. The only major difference you will find here is, instead of one single repository which is the server, here every single developer or client has their own server and they will have a copy of the entire history or version of the code and all of its branches in their local server or machine. Basically, every client or user can work locally and

disconnected which is more convenient than centralized source control and that's why it is called distributed.

5. What is Git?

A. Git is an open-source distributed version control system. It is designed to handle minor to major projects with high speed and efficiency. It is developed to co-ordinate the work among the developers.

6. List a few features of Git.?

A. Features of Git

- Free and open source
- Supports non-linear development
- Creates backups
- Scalable
- Tracks history

7. State any three commands of Git and why we use them.

A. **Git config command:**

This command configures the user. The Git config command is the first and necessary command used on the Git command line. This command sets the author name and email address to be used with your commits. Git config is also used in other scenarios.

Git Init command:

This command is used to create a local repository.

Git clone command:

This command is used to make a copy of a repository from an existing URL. If I want a local copy of my repository from GitHub, this command allows creating a local copy of that repository on your local directory from the repository URL.

8. Is Git the same as Github? Why or Why not?

A.Git is not Github. Git is a piece of software that you install locally on your computer which handles 'version control' for you.

9. What is the command to get the installed version of Git?
A. git –version.

10. What is the command to add all files and changes of the current folder to the staging environment of the Git repositor
A. git add