**Question:** What is compile time and runtime environment?

**Answer:** Compile-time is the time at which the source code is converted into an executable code while the run time is the time at which the executable code is started running.

**Question:** What is compile time and runtime environment in JavaScript?

**Answer:** A JavaScript (JS) runtime is a comprehensive environment that enables the execution of JavaScript code. It consists of various components working together to facilitate the execution of JavaScript applications. Compile-time reactivity in JavaScript refers to a paradigm where reactivity is handled during the compilation phase rather than at runtime.

**Question:** What is open source?

**Answer:** The open-source model is a decentralized software development model that encourages open collaboration.

**Question:** Why and how is node JS open source?

**Answer:** As an open-source project, Node.js is free to use, modify and distribute.

**Question:** What is cross-platform?

**Answer:** In computing, cross-platform software is computer software that is designed to work in several computing platforms.

**Question:** How is node JS cross-platform?

**Answer:** Node.js can run on Windows, Linux, Unix, macOS, and more.

**Question:** What are libraries in terms of software?

**Answer:** In computer science, a library is a collection of read-only resources that is leveraged during software development to implement a computer program.

**Question:** Is node JS a library?

**Answer:** Node.js is not a library but a runtime environment because rather than loading, it provides an execution environment.

**Question:** What is runtime JavaScript?

**Answer:** JavaScript runtime refers to where your JavaScript code is executed when you run it.

**Question:** What is server-side?

**Answer:** It is the program that runs on server dealing with the generation of content of web page.

1) Querying the database

2) Operations over databases

3) Access/Write a file on server.

4) Interact with other servers.

5) Structure web applications.

6) Process user input.

**Question:** Do we make front-end on server side?

**Answer:** Typically, front-end is not made on server side but technically it is possible to do so using techniques like SSR (Server-Side Rendering).

**Question:** What is "Server-side cross-platform"?

**Answer:** "Server-side cross-platform" refers to technologies that can run on multiple operating systems (Windows, Linux, macOS) without modification, allowing for increased flexibility, portability, and reduced costs.

**Question:** What is the difference between web application and web server?

**Answer:** A web application (web app) is an application program that is stored on a remote server and delivered over the internet through a browser interface. A web server is a software component that delivers static data like images, files, and text in response to client requests.

**Question:** What is server environment?

**Answer:** A server environment refers to the hardware, software, and network configurations that collectively form the backbone of a server's infrastructure.

**Question:** What is open-source server environment?

**Answer:** It is a software designed to serve the files or web pages requested by a user over the World Wide Web.

**Question:** Framework vs library vs package (3 differences)

**Answer:** Framework controls the flow whereas in a library and package, it is up to the user.

Framework has high-level abstraction, library has low-level abstraction and package has a mix.

Framework provides overall structure and functionality whereas a library provides specific functionality and package provides a collection of reusable code and tools.

**Question:** What is node JS?

**Answer:** Node.js is a JavaScript runtime built on Chrome's V8 JavaScript engine.

**Question:** What are the types of languages and what are the differences in them?

**Answer:** A procedural language follows a sequence of statements or commands in order to achieve a desired output.

Rather than focusing on the execution of statements, functional languages focus on the output of mathematical functions and evaluations.

Object-oriented programming language treats a program as a group of objects composed of data and program elements, known as attributes and methods.

Programmers use scripting languages to automate repetitive tasks, manage dynamic web content, or support processes in larger applications.

Instead of telling a computer what to do, a logic programming language expresses a series of facts and rules to instruct the computer on how to make decisions.

High-level languages are human-friendly. They are, thus, very easy to understand and learn by any programmer.

Low-level languages are machine-friendly. They are, thus, very difficult to understand and learn by any human.

**Question:** What category of languages does JavaScript lie in?

**Answer:** JavaScript is a high-level scripting language

**Question:** What is chrome's V8 engine?

**Answer:** V8 is the name of the JavaScript engine that powers Google Chrome. It's the thing that takes our JavaScript and executes it while browsing with Chrome.

**Question:** Is node JS made on another programming language?

**Answer:** Node.js is an open-source runtime environment, based on Chrome's V8 JavaScript engine and written in JavaScript and C/C++.