Day 2

1) What is JavaScript?

Java script is a high level, object oriented and multi paradigm programming language. It is a client side language. Java Script is named after Java the main difference is java is compiled language and java script is an interpreted language.

Multi Paradigm means we can use different style of programming. It is multi programming language it means it is very dynamic in nature and supports various types of programming styles such as Object Oriented, Imperative programming and functional programming.

Java Script allows user to add dynamic effect and interactive effect. It is also can be used to load the data.

It is a single thread, non blocking and asynchronous concurrent language.

2) Why Java Script is so popular?

One of the primary reason is that it can run anywhere. The language runs on all major browser like Google Chrome. Internet Explorer, Firefox, Safari and even on less known browser.This means code compilation is not necessary before executing the language. JavaScript speeds up the delivery.

3) How it runs ?

It runs on browser. Every Browser have their separate java Script engine for example chrome has j8 engine.

One of the primary reason is that it can run anywhere. The language runs on all major browser like Google Chrome. Internet Explorer, Firefox, Safari and even on less known browser. This means code compilation is not necessary before executing the language.

This allow us to write cross-platform apps really easy.

4) what is node.js?

* Node.js is an open source server environment
* Node.js is free
* Node.js runs on various platforms (Windows, Linux, Unix, Mac OS X, etc.)
* Node.js uses JavaScript on the server

Node.js uses asynchronous programming. The main advantage of using Node,js is it simply eliminates the waiting time and get ready for next requests.

Node.js provide runtime environment for java script to run.We can make application using node.js.

5)Why Node.js?

Node. js programs are written in JavaScript which can be used for both frontend and backend development. The main advantage of using Node,js is it simply eliminates the waiting time and get ready for next requests.

Node.js uses non-blocking, event-driven I/O to remain lightweight and efficient in the face of data-intensive real-time applications that run across distributed devices.

6)What is NVM?

Node version manager. It is the tool used for managing tool version on our device.Different projects on our devices use different version of node.

NVM allows us to install different versions of Node, and switch between these versions depending on the project that you're working on via the command line.

Suppose we have a node version 10.0.0 in our computer and we have a project which use 12.0.0 version of node js so we can get some error.

Instead of using npm to install and uninstall Node versions for your different projects, you can use **nvm**, which helps you effectively manage your node versions for each project.

7) What is NPM?

Npm is installed with node.js. It means we have to installed node.js to get npm installed in your computer.

The name **Npm** (Node Package Manager) stems from when npm first was created as a package manager for Node.js.

All **NPm** packages are defined in files called **package.json**.

The content of package.json must be written in **JSON**.

At least two fields must be present in the definition file: **name** and **version**.

8)What is event loop and how it work ?

Java Script has a run time model based on event loop which is responsible for executing the code, collecting processing event and executing queued sub task.

So basically javaScript can do one thing at a time so the rest are queued to task queue waiting to be executed.

So the work of the event loop is to pushes the task from the queue to the call stack.