**Assignment(23-06-2025)**

**1)What is Full Stack Development, and what does a Full Stack Developer do?**

Ans:-

1. Full stack development is the combination of frontend, backend and database.
2. A full stack developer does handles frontend, backend and connects to a database and test features and finally deploys the website to make a working app or website.

**2)What are the key differences between Frontend and Backend development?**

Ans:-

1. Frontend is what we see on a website, like buttons, images, videos and menus. Backend is what works behind it, like saving data and checking passwords.
2. Frontend is called client-side because it runs clients browsers. Backend is called server-side because it runs on the server.
3. Frontend uses languages like html, css, js and Backend uses languages like java, python, reactjs, nodejs.

**3)What is Frontend development, and what are its main responsibilities?**

Ans:- Frontend development is the process of creating the interactive parts of a website or web application that users see and interact with directly, focusing on design, layout. Its main responsibilities include building responsive user interfaces, optimizing performance for smooth user interaction.

**4)What are some commonly used technologies and frameworks for Frontend development?**

Ans:- Some commonly used technologies and frameworks for frontend development are HTML, CSS, and JavaScript, which build the structure, style, and interactivity of a website. Popular frameworks and libraries like React, Angular. It help developers create websites faster and more efficiently.

**5)What is Backend development, and why is it important in Full Stack development?**

Ans:- Backend development is the part of a website that works behind the scenes, like handling data and server communication. It’s important in full stack development because it makes sure everything runs properly, connects to the database.

**6)What are some commonly used technologies and frameworks for Backend development?**

Ans:- Some commonly used technologies and frameworks for backend development are programming languages like Python, Java, Node.js, and PHP, which help build the logic of a website. Frameworks like Express.js, Django and Spring make it easier and faster to create secure backend.

**7)What is a Database, and how does it contribute to Full Stack development?**

Ans:- A database is a container where we can store the data and retrivals. In database, we can performing some operations like create,read,update and delete

**8)What are the differences between SQL and NoSQL databases?**

Ans:- SQL databases store data in tables with rows and columns. It has some structure for storing the data. NoSQL databases store data is more flexibly and there is not only structure for the data

**9)What is Deployment in Full Stack development, and what are some common deployment platforms?**

Ans:- Deployment in full stack development means putting your website on the internet so people can use it. Some common deployment platforms are **Heroku** and **AWS**, which help developers easily launch and manage their projects online.

**10)What are some popular Full Stack technology stacks, and how do they differ? (e.g., MERN, MEANf etc.)**

Ans:- Some popular full stack technology stacks are **MERN** and **MEAN**, and they differ mainly in the backend framework they use.

* **MERN** stands for **MongoDB, Express.js, React, and Node.js** – it uses **React** for building the frontend.
* **MEAN** stands for **MongoDB, Express.js, Angular, and Node.js** – it uses **Angular** for the frontend instead.