

## MERN Stack Assignment 5

### 1. Apart from MERN Stack, what other stacks are you familiar with?

**Ans.**

Other familiar stacks are:

- **MEAN stack** - is a set of collected JavaScript-based technologies used to develop complex websites and web apps. MongoDB, Express.JS, Angular, and Node.JS are a group of technologies that make a combination of MEAN Stack technology in Mobile and Web Applications
- **MEVN stack** - MEVN stands for MongoDB, Express. js, VueJS, Node. js. MEVN stack is the open-source JavaScript software stack that has emerged as a new and evolving way to build powerful and dynamic web applications.
- **Django stack** - (JavaScript + Django, Python, and MySQL)
- **LAMP stack** - (JavaScript + Linux, Apache, MySQL, and PHP)

### 2. In ExpressJs, what do you mean by middleware?

**Ans.**

In Express Js middleware are functions that execute during the lifecycle of a request to the Express server. Each middleware has access to the HTTP request and response for each route (or path) it's attached to.

Additionally, middleware can either terminate the HTTP request or pass it on to another middleware function using next (). This "chaining" of middleware allows you to compartmentalize your code and create reusable middleware.

When a request is received by Express, each middleware that matches the request is run in the order it is initialized until there is a terminating action (like a response being sent).

### 3. What exactly do you mean when you say "sharding"?

**Ans.**

The word "Shard" means "a small part of a whole". Hence Sharding means dividing a larger part into smaller parts.

In DBMS, Sharding is a type of DataBase partitioning in which a large DataBase is divided or partitioned into smaller data, also known as shards.

It helps the database distribute and better execute what might otherwise be problematic and cumbersome queries. Without sharding, scaling a growing web application with millions of daily users is nearly impossible.

#### **4. Describe a few examples Where can the MERN Stack be used?**

**Ans.**

MERN stack can be used for the following :

**E-Commerce Development** - The flexible architecture of MERN supports cloud-powered databases that can handle millions of transactions and provides quality user interfaces. They offer enhanced speed for data retrieval and flexibility in deployments that makes them a perfect fit for e-commerce development.

**Social Media Development** - One of the biggest social media Facebook, which is built on React. Social Media can be built using MERN Stack.

**Chatting Applications** - Chatting Websites or Chatting Application can be built using MERN stack.

**OTT Platforms** - OTT Platforms like Netflix and Amazon Prime can be built using MERN stack.

#### **5. What do you mean when you say "threads"?**

**Ans.**

A thread is a lightweight sub-process, the smallest unit of processing.

It is the smallest sequence of programmed instructions that can be managed independently by a scheduler.