

MERN Stack Assignment 5

Que1. Apart from MERN Stack, what other stacks are you familiar with?

Ans =>

Apart from MERN Stack there are two other Stacks full Stack and MEAN Stack:

MEAN Stack:

The MEAN Stack is JavaScript framework for developing web applications. MEAN is named after MongoDB, Express, Angular and Node, the four key technologies that make up the layers of the stack.

- MongoDB: document database
- Express(.js): Node.js web framework
- Angular(.js): a client-side JavaScript framework
- Node(.js): the premier JavaScript web Server

Benefit of MEAN Stack:

- An open-source framework
- Resistant to redundant grunt work
- Built-in extensive tool testing suit
- Entire coverage of web development cycle
- Model view controller (MVC)architecture support
- Offers 4-exceptional technologies

Full Stack:

This Technology refers to set of tools and programming languages that a full stack developer works on both the front-end and the back-end of an application or website. It means, Full Stack developers can work on Full Stack of an application meaning Front End Technology, Back End Development Languages, Version Controlling Systems, Server, APIs and Database.

Technology in Full Stack:

- Frontend: CSS, Single Page application like HTML5 and Ajax, JavaScript, Angular, React, TypeScript etc.
- Backend: Python, PHP, NodeJS, Express, GO, Coaching, Django, Middleware, .net etc.
- Database: Postgres, MySQL, MongoDB, SQLite, Clusters etc.
- Mobile Apps: iOS and Android

- Benefit of Full Stack:
- Cost Effective
- Flexible
- Best-fit for small and Medium Enterprises
- Easy Upgradation
- Oversees Design Infrastructure
- Easy Switching Between Frontend and Backend

Que2. In Express. Js, what do you mean by middleware?

Ans. =>

Middleware functions are functions that have access to the request object(req), the response object(res), and the next function in the application's request-response Cycle. The next function is a function in the Express router which, when invoked, executes the middleware succeeding the current middleware.in simple words

\Middleware means anything we put in the middle of one layer of the software and another. And Express middleware are functions that execute during the lifecycle of a request to the Express server. Each middleware has access to the HTTP req and res for each route as we know that is also mentioned above.

Middleware functions can perform the following tasks:

- Execute any Code.
- Make changes to the request and the response objects.
- End the request-response objects.
- Call the next middleware in the stack.
- If the current middleware function does not end the request-response cycle, it must call next () to pass control to the next middleware function. Otherwise, the request will be left hanging.

Que3. What exactly do you mean when you say "sharding"?

Ans=>

In Database Management System, Sharding is a type of Database partitioning in which a large Database is divided or partitioned into smaller data, also known as shards. These shards are not only smaller, but faster and hence easily manageable.

In simple words Sharding means dividing a larger part into smaller parts.

Que4. Describe a few examples Where can the MERN Stack be used?

Ans=>

There are several MERN Use Cases Like any web stack, we can build whatever we want in MERN -though it's ideally suited for cases that are JSON-heavy, cloud-native, and that have dynamic web interfaces.

Here are some few Examples might be =>

- Interactive Forms
- Social Products
- Web Apps Like To-do apps Calendars
- News aggregation
- Workflow management
- And whatever else that we can imagine!

Que5. What do you mean when you say "threads"?

Ans =>

Threads are a sequence of code execution which can be executed independently of one another. And these are lighter weight Operations, Threads share memory with other threads of the same process and Threads use the memory of the process they belong to.