MERN - Challenge

Assignment – 05

1. MEAN stack and Full stack

2. Middleware literally means anything you put in the middle of one layer of the software and another. Express 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. In fact, Express itself is compromised wholly of middleware functions. Additionally, middleware can either terminate the HTTP request or pass it on to another middleware function using next (more on that soon). This "chaining" of middleware allows you to compartmentalize your code and create reusable middleware.

3. Sharding is a very important concept which helps the system to keep data into different resources according to the sharding process. 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. These shards are not only smaller, but also faster and hence easily manageable.

4. used for easier and faster deployment of full-stack web applications,
   Covers the full web development cycle from front end development (client side) to back end development (server side) using JavaScript,
   Supports the MVC (Model View Controller) architecture to make the development process flow smoothly,
   With the JavaScript stack, developers only need to be proficient in JavaScript and JSON,
   Comes with a pre-built extensive suite of testing tools,
   Open source in frameworks and backed by good community supports.

5. A thread of execution is the smallest sequence of programmed instructions that can be managed independently by a scheduler, which is typically a part of the operating system.