

MERN Stack Assignment 2

Que1. What id MongoDB replication?

Ans =>

A Replica set in MongoDB is a group of mongo dB processes that maintain the same dataset. Replica sets provide redundancy and high availability, and are the basis for all production deployments.

In Simple way we can say that MongoDB Replication is the process of creating a copy of the same data set in more then one MongoDB server. This can be achieved by using a Replica Set.

Replication enables database administrators to provide:

- Data redundancy
- High availability of data

Que2.What are some of NodeJS features?

Ans. => these are some of the important features that make node.js the first choice of software Architects.

- **Asynchronous and Event Driven** – All APIs of Node.js library are asynchronous, that is, non-blocking. It essentially means a Node.js based server never waits for an API to return data. The server moves to the next API after calling it and a notification mechanism of Events of Node.js helps the server to get a response from the previous API call.
- **Very Fast** – Being built on Google Chrome's V8 JavaScript Engine, Node.js library is very fast in code execution.
- **Single Threaded but Highly Scalable** – Node.js uses a single threaded model with event looping. Event mechanism helps the server to respond in a non-blocking way and makes the server highly scalable as opposed to traditional servers which create limited threads to handle requests. Node.js uses a single threaded program and the same program can provide service to a much larger number of requests than traditional servers like Apache HTTP Server.
- **No Buffering** – Node.js applications never buffer any data. These applications simply output the data in chunks.
- **License** – Node.js is released under the MIT license.

Que3.What is MongoDB's database type?

Ans=>

MongoDB is an open-source available cross-platform document-oriented database program. Classified as a NoSQL database program. NoSQL is used as an alternative to traditional relational database. NoSQL database are useful for working with large sets of distributed data. MongoDB is a tool that can manage document-oriented information, store or retrieve information.

Que4.How does Node.js prevent blocking code?

Ans=>

Node is assumed to prevent blocking code by using a single-threaded event loop.

While non-blocking operation allow further pieces of code to execute without making them wait and use call-backs when they are completed. thus, blocking code can be said to work synchronously while non-blocking code works asynchronously.

Que.5 what exactly do you mean when you say "pure components"?

Ans =>

If we extend a class with Pure Component, there is no need for shouldComponentUpdate () Lifecycle Method. In simple words, react will always re-render the component each time there is a change in state or props value. A pure component is a component that performs a check on the value of React props before deciding whether to re-render the component or not.