Muhammad Nur Faqqih – Junior BE Test

1. Explain about Event Loop & how Event Loop works

Event loop is a process / event that only have on thread but implement multiple loops or even infinite loops in order to do the task in the event / process.

Event loop works with only doing one task and in order to handle multiple request, it will select the prioritized task that will be need to be done first.

Flow :
1. Event Emitter will bring the task to the event queue.
2. Event loop will take a task from the queue and processing it with its defined handlers. The taking process in this flow is based on the algorithm that prioritize which task will be done first.
3. When the process is done. Event loop will trigger the call-back and inform that the process is done and then send the result

2. Give an explanation about Call-back Hell & how to avoid it?

Is a condition when our code is having too much call-back functions, or the call-back is being nested in another call-back which will affect the code readability and code efficiency.

We can avoid it with using *promise* instead of call-back.

3. Give an explanation about Middleware concept

Middleware is a software / service that provides services for connecting different part of an application

4. Give an explanation about Buffer

A buffer is an area of memory that stores data when it is transferred between two devices or between a device and an application

5. Give a list of differentiation of JavaScript iterator functions & For Loop

a. Iterator is an interface provided by collection framework to traverse a collection and for a sequential access of items in the collection, instead of For loop which is meant for traversing items in a collection.
b. For loop cant modify collection, but with iterator we can modify collection
c. For Loop refers to the code, in the other hand iteration refers to the process in which the content of loop is executed once.

6. What is GraphQL?

GraphQL is a query language for developing API, with GraphQL the data that requested will be more easy to read and flexible to consume by the client. GraphQL it's self is developed by facebook, and of course being used by them to serve their client needs.

7. What is Resolver in GraphQL?

Resolver is a function that's populating the data for a field in a schema, usually used to fetch data from a database or even an external API.

8. Give a list about pros & cons using Embedded Document & Reference ID in MongoDB

       Pros

      a. Embedded Document
- Good for data atomicity and isolation
- Good for data locality

      b. Reference Id
- Flexible approach to get data
- Good for Potentially High-Arity Relationships

9. What is Aggregation in MongoDB?

Aggregation is a operations that can be use to process data records and return the computed result, aggregation also can be use to group values from multiple document together, and can perform multiple of operations on the grouped data to return a result that expected.

10. Give an explanation about Pipeline in Aggregation MongoDB

It is a framework for data aggregation modelled on by using the concept of data processing pipelines, which means documents enter a multi-stage pipeline that transform the documents into a aggregated result