**Interview Questions**

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**I am from vedchha**

**I have completed mca from gujarat technology university**

**I have 2+ year of experience with (node js and react js)(fullstack)**

**I have been completed 2 project in (node js and react js)**

**1 compainwizard.io**

**Campaign Wizard:**

In this project we have integrated the Hubspot API, by using that we will list the Hubspot campaign in our System. Our end user will check and purchase the campaign using stripe payment.

**2 drivermenu.codelibrary.com**

**Driver App:**

This project is used by driver. In this app, we allow driver to create a trip and find the optimum route for their order delivery.

**The try statement defines a code block to run (to try).**

**The catch statement defines a code block to handle any error.**

**The finally statement defines a code block to run regardless of the result.**

**The throw statement defines a code block to custom error.**

**An async function consists of two main keywords: async and await.**

**Async :** async is used to make a function asynchronous.

**await :**  The await keyword will ask the execution to wait until the defined task gets executed....

**Await use to call async function**

**1 - what is class?**

**Ans -** collection of object

**2 - what is an object?**

**Ans -** object is collection of property

**3 - what is property?**

**Ans -** property is a associated between name(key) and value

**3.1 - what is javascript**

**Ans -** JavaScript is a scripting language that enables you to create dynamically update content, control multimedia, animate images, and pretty much everything else. (Okay, not everything, but it is amazing what you can achieve with a few lines of JavaScript code.)

**4 - What are the Arrays**

**Ans -** array are collection of data item stored under a single name array is a special type of object

**4.1 - What is Data Type?**

**Ans -** Type of data that variable can store

int ,float,string,boolean

**4.2 - what is variable ?**

**Ans - Variables are used to store information** to be referenced and manipulated in a computer program.

**Q - what is sql**

**Ans -** Structure query language

Storing ,manipulate and retrieving in data in database

operate on the data stored in a database

**Q - what is a database?**

**Ans -** collection of structured information

can be easily accessed and managed

**Q - what is json**

JSON stands for **JavaScript Object Notation**

JSON is a lightweight format for storing and transporting data

JSON is often used when data is sent from a server to a web page

JSON is "self-describing" and easy to understand

**5 - What is the difference between an Array and ArrayList**

**Ans -** An array is a collection of similar variables clubbed together under one common name. While ArrayList is a collection of objects that can be indexed individually. With ArrayList you can access a number of features like dynamic memory allocation, adding, searching, and sorting items in the ArrayList.

* When declaring an array the size of the items is fixed therefore, the memory allocation is fixed. But with ArrayList, it can be increased or decreased dynamically.
* Array belongs to system.array namespace while ArrayList belongs to the system.collection namespace.
* All items in an array are of the same datatype while all the items in an ArrayList can be of the same or different data types.
* While arrays cannot accept null, ArrayList can accept null values.

**5 - what is oop?**

**Ans -** Object-Oriented Programming (OOP) is a programming concept that works on the principles of abstraction, encapsulation, inheritance, and polymorphism. ... The basic concept of OOPs is to create objects, re-use them throughout the program, and manipulate these objects to get results

**6 - abstraction**

**Ans -** Exposing only the relevant detail of an entity

Showing only nccessory details

**7 - encapsulation**

**Ans -** binding data and operations together in an entity

Wrapping of the code and data together in a single unit (entity)

**8 -** **inheritance**

**Ans - reusability of code** it is possible to inherit attributes and methods from one class to another.

**9 - polymorphism**

**Ans - one name, many forms** Polymorphism means "many forms", and it occurs when we have many classes that are related to each other by inheritance.

**Object act different under different condition**

**Ex - user can be admin, manager worker ect**

**10 - Define Constructors**

**Ans - A constructor is a member function in a class that has the same name as its class.** The constructor is automatically invoked whenever an object class is created. It constructs the values of data members while initializing the class.

**11 - What is the difference between ref & out parameters?**

**Ans -** An argument passed as **ref must be initialized before passing to the method** whereas **out parameter needs not to be initialized before passing to a method.**

**Ref : declare kare**

**out : no declare**

**12 - What is serialization?**

**Ans -** When we want to transport an object through a network, then we have to convert the object into a stream of bytes. **The process of converting an object into a stream of bytes is called Serialization**. For an object to be serializable, it should implement ISerialize Interface. De-serialization is the reverse process of creating an object from a stream of bytes.

**13 - What is the difference between constants and read-only**

**Ans - Constant variables are declared and initialized at compile time.** The value can’t be changed afterward. **Read-only is used only when we want to assign the value at run time.**

**14 - What is Reflection**

**Ans -** Reflection extracts **metadata from the data types during runtime.**

**15 - What are extension methods**

**Ans - Extension methods help to add new methods to the existing ones**. The methods that are added are static.

**16 - What is garbage collection**

**Ans - Garbage collection is the process of freeing up memory that is captured by unwanted objects**. When you create a class object, automatically some memory space is allocated to the object in the heap memory.

**17 - What is Boxing and Unboxing**

**Ans -**

**Boxing :** Boxing converts value type (int, char, etc.) to reference type (object) which is an implicit conversion process using object value.

**Convert value to object**

**Unboxing :** Unboxing converts reference type (object) to value type (int, char, etc.) using an explicit conversion process.

**Convert object to value**

**18 - What is the difference between String and StringBuilder**

**Ans -** The major difference between String and StringBuilder is that String objects are immutable while StringBuilder creates a mutable string of characters. StringBuilder will make the changes to the existing object rather than creating a new object.

**String -** immutable

That means modified(change) value of string variable then new memory allocated to new value

**StringBuilder -** mutable

That means the value of string variable the string value modified(change) as a same memory

**19 - What are indexers**

**Ans - Indexers are known as smart arrays.** It allows the instances of a class to be indexed in the same way as an array.

**20 - What are Custom Exceptions**

**Ans - Sometimes there are some errors that need to be handled as per user requirements.** Custom exceptions are used for them and are used as defined exceptions.

**20.1 - what is exception handling?**

**Ans -** handle run time error

**21 - What are delegates?**

**Ans -** A delegate is a type that represents references to methods with a particular parameter list and return type.

**22 - What is an object pool**

**Ans - An object pool is a container having objects ready to be used.** It tracks the object that is currentlyin use, total number of objects in the pool. This reduces the overhead of creating and re-creating objects.

**23 - What is method overloading**

**Ans -** Method overloading is creating multiple methods with the same name with unique signatures in the same class.

**24 - what is method overriding?**

**Ans -** Method Overriding is a Runtime polymorphism. In method overriding, **the derived class provides the specific implementation of the method that is already provided by the base class or parent class**

**25 - status code**

**Ans -**

### Status code 200 – request is ok.

Status code 201 – Created

Status code 202 – Accepted

Status code 204 – No content

Status code 301 – Moved permanently

Status code 400 – Bad request

Status code 401 – Unauthorized

Status code 403 – Forbidden

Status code 404 – Not found

Status code 500 – Internal server error

Status code 502 – Bad gateway

Status code 503 – Service Unavailable

**26 - node js http request**

**Ans -** GET , POST, PUT ,DELETE, PATCH

**27 - non-blocking in node js?**

**Ans -** Non-blocking I/O operations **allow a single process to serve multiple requests at the same time.**

**28 - blocking in node js?**

**Ans -** blocking of further **operation until the current operation finishes.**

**29 - How would you define the term I/O?**

**Ans -** The term I/O is used to describe any program, operation, or device that transfers data to or from a medium and to or from another medium Every transfer is an output from one medium and an input into another. The medium can be a physical device, network, or files within a system

**30 - If Node.js is single-threaded, then how does it handle concurrency?**

**Ans -** The Multi-Threaded Request/Response Stateless Model is not followed by the Node JS Platform, and it adheres to the Single-Threaded Event Loop Model. The Node JS Processing paradigm is heavily influenced by the JavaScript Event-based model and the JavaScript callback system. As a result, Node.js can easily manage more concurrent client requests. The event loop is the processing model's beating heart in Node.js.

**31 - jwt**

**Ans -**  Virtual machine of Node js has JIT compilation which **improves the execution speed of the code**