

JAVASCRIPTS QUESTIONS

1. How does JavaScript work?

Ans: Javascript is a single thread programming language (means doing a job at one time). Javascript Code is used to run on the browser with the help of JavaScript Engine such as V8 Engine, Spidermonkey Chakra etc. The most popular among these is V8 Engine. It is built with C ++ language and it converts Javascript Code to Machine Code using JIT (just in time compiler). And Javascript usually works on Asynchrony Way. Asynchrony is a method that for the code that will take some load or time from execute when running the code (Synchronus Code) does not wait to run the lower or the next comed code but the codes that work asynchronously will work as a task queue. The tab is deposited in the tab and then the synchronus code runs with an event loop one by one, and when the loading process of the Asynchronous Task is finished, they also run through the Event Loop.

Bangla: Javascript হচ্ছে একটি single Thread Programming Language(মানে এক সময়ে একটি কাজ করা)। Javascript Code Browser এ রান করতে যে Engine গুলো ব্যবহার করা হয় তাকে বলা হয় Javascript Engine যেমন V8 Engine,SpiderMonkey Chakra Etc।এগুলো মধ্যে সবচেয়ে পোপুলার হচ্ছে V8 Engine। এটা C++ Language দিয়ে বানানো হয়েছে এবং এটি Javascript Code কে Machine Code এ রূপান্তর করে JIT(Just in Time Compiler) ব্যবহার করে রান করে থাকে। এবং Javascript Asynchrony Way তে সাধারণত কাজ করে। Asynchrony হচ্ছে এমন একটি পদ্ধতি যেটা Code Run করার সময় যে কোড গুলো Execute হতে কিছুটা লোড বা সময় নিবে তাদের জন্য তার(synchronus code) নিচের বা পরের আসা কোড কে রান করতে অপেক্ষা করায় না বরং যে কোড গুলো Asynchronously কাজ করবে তাদের Task Queue নামে একটি Tab এ জমা করে রাখে এবং ততক্ষণে Synchronus Code গুলো এক এক করে Event Loop দিয়ে রান করতে থাকে এবং Asynchronous Task এর লোডিং প্রসেস এর কাজ শেষ হলে Event Loop এর মাধ্যমে এগুলোও রান করে দেয় শেষে।

=====End=====

2. How does JavaScript code is executed in Browser?

Ans: The engines that are used to run in Javascript Code Browser are called Javascript Engine such as V8 Engine, SpiderMonkey Chakra Etc. The most popular of these is V8 Engine. It is made with C Language and it converts Javascript Code to Machine Code and runs using JIT (Just in Time Compiler). And Javascript usually works on Asynchrony Way

=====End =====

3.What are the differences between “==” and “===” ?

Ans:

The Difference between == and === are given below:

== sign check only value is same or not on the other hand === sign check value and data type both. If any of one false then === sing will give false. But == sign doesn't check the data type.

=====End =====

4. What is a callback function?

Ans: A callback function is a function passed into another function as an argument, which is then invoked inside the outer function to complete some kind of routine or action. Callbacks make sure that a function is not going to run before a task is completed but will run right after the task has completed. It helps us develop asynchronous JavaScript code and keeps us safe from problems and errors.

=====End =====

5.How will you return more than one value from a function?

Ans: To Return Multiple items form a function we can return an array or objects of all items. Then we can destructure them to our need.

=====End=====

6. Tell me about bind, call and apply.

Ans: the fundamental difference is that call () accepts an argument list, while apply () accepts a single array of arguments. Data binding in concept is quite simple. On one side, you have a data model and on the other side, you have an interface, often called a view. The idea is that you want to “bind” some piece of data to something on the view so that when the data changes, the view changes.

=====End =====

7. What is a Closure in JavaScript? How does it work?

Ans:

Closures are functions that have access to the variables that are present in their scope chain even if the outer function ceases to exist. Closures are useful whenever you need a private state associated with a function. This is a very common scenario - and remember: JavaScript did not have a class syntax until 2015, and it still does not have a private field syntax. Closures meet this need.

=====End =====

8. What does the “this” keyword indicate in JavaScript?

Ans:

In JavaScript, this keyword refers to an object that is executing the current piece of code. It references the object that is executing the current function. If the function being referenced is a regular function, “this” references the global object. If the function that is being referenced is a method in an object, “this” references the object itself.

=====End =====

9. What is Event bubbling in js?

Ans:

Event bubbling is a way of event propagation in the HTML DOM. It relates to the order in which events are propagated in nested elements. In bubbling, when an event happens, the handler of the innermost element runs, then the parents, and then the further ancestor elements. In other words, events bubble up or propagate the DOM tree upwards.

=====End =====

10. Explain hoisting in JavaScript.

Ans:

In JavaScript, Hoisting is a kind of default behavior in which all the declarations either variable declaration or function declaration are moved at the top of the scope just before executing the program's code. However, it can be considered an advantage because all functions and variable declarations are placed to the top of their scope no matter where they are all declared anywhere in the whole program, even regardless of whether they are declared global or local.

=====End =====

11. What is a recursive function

Ans:

A recursive function is a function in code that refers to itself for execution. Recursive functions can be simple or elaborate. They allow for more efficient code writing, for instance, in the listing or compiling of sets of numbers, strings or other variables through a single reiterated process.

=====End =====

12. Difference between undefined and null

Ans:

- The undefined property indicates that a variable has not been declared at all.
- The value null represents the absence of any object value

=====End =====

13. What are the different data types in JavaScript?

Ans:

There are various data types available in javascripts. They are given below:

1. Number Data types
2. String Data types
3. Boolean Data types
4. Object Data Types
5. Undefined
6. Array data type
7. Null data type

=====End =====

14. What is DOM

Ans:

The Document Object Model (DOM) is a programming interface for HTML(HyperText Markup Language) and XML(Extensible markup language) documents. It defines the logical structure of documents and the way a document is accessed and manipulated. With DOM, we can easily access and manipulate tags, IDs, classes, Attributes, or Elements of HTML using commands or methods provided by the Document object. Using DOM, the JavaScript gets access to HTML as well as CSS of the web page and can also add behavior to the HTML elements. So basically Document Object Model is an API that represents and interacts with HTML or XML documents.

=====End =====

15. How will you know the type of a JavaScript variable?

Ans: To check type of any value in javascripts we can use typeof method .

How to use typeof method?

typeof(value); this will return the type of value

=====End =====