



JavaScript Interview Questions

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Why do we call JavaScript as dynamic language?

JavaScript is a dynamic language means data types of the variables can change during the runtime.

How does JavaScript determine data types?

JavaScript determines data types depending on the value assigned. So, if you assign 10 value it becomes a number, if you assign "Hello" value it makes it a string.

What is "typeof" functions?

How to check data type in JavaScript?

To check data type, we will can use the "typeof" function in JavaScript.

```
var x=100;  
var watistatetype = typeof(x);
```

What are the different datatypes in JavaScript?

There are total 8 data types in JavaScript and these 8 data types are divided in to 2 categories, Primitive and Objects

Below are the Primitive data types plus objects.

String type

Null type

Number type

Undefined type

Boolean type

BigInt type

Symbol type

SNNUB + Objects



Explain Undefined Data types ?

Undefined means the variable has been declared but no value is assigned to it. In the below code you can see “x” variable is declared but not assigned any value. In this scenario “x” will have value “undefined”.

```
var x;
```

What is Null?

Null indicates intentional absence of data. Null indicates its not ZERO , Its not empty its just absence of data.

Differentiate between Null and Undefined?

Undefined	Null
Variable has been created but value is not assigned.	We assign value NULL , it indicates absence of data.

Explain Hoisting?

It's a mechanism where variables and function declaration to the top of the scope.

Are JavaScript initialization hoisted?

No. It has value undefined.

What are global variables?

Global variables are accessible through out the webpage or the document.

What are the issues with Global variables?

Global variables makes debugging hard as its accessible everywhere.

What happens when you declare variable without VAR ?

It makes the variable global.



What is Use Strict ?

How to force developers to use Var keyword?

“Use Strict” says that variable should be defined using “var” keyword , if not done exception should be thrown. “Use Strict” strictly checks if the variable is defined using “var” keyword.

How can we handle Global Variables?

How can we avoid Global variables?

Its difficult to avoid global variables. But we can organize it properly by doing two things: -

- Put global variables in a proper Namespace.
- Module pattern using Closures and IIFE.

What are Closures?

Closures are functions inside function and it makes a normal function stateful. Below is a simple closure code.

```
function ClosureFunction(){
    var x;
    function Increment(){
        x++;
    }
    function GetXValue(){
        return x;
    }
    function Init(){
        x=0;
    }
    Init();
    return {
        Increment,
        GetXValue
    }
}
```

Why do we need Closures?

Closures have two big advantages: -



- It helps to create self-contained modules, if we have self-contained modules then their state is also self-contained which leads to less global variables and thus better code.
- It helps to implement encapsulation and abstraction.

Explain IIFE?

IIFE Stands for Immediately Invoked Function Expression. It's an anonymous function which gets immediately invoked.

```
(function(){  
    // Gets invoked immediately  
})();
```

What is the use of IIFE ?

What is name collision in global scope ?

Because IIFE does not have name we can never get name collision. Name collision happens when same name function names and variable names are declared.

IIFE vs Normal Function

A normal function has a name while IIFE does not have name. So with a normal function you can have a name collision but with IIFE you will not have name , you will not name collision.

What are design patterns?

Design patterns are time tested architecture solutions. So, to create a single instance we can use singleton pattern, if the object creation process is complex, we can use factory pattern and so.

Which is the most used design pattern in JavaScript?

Module pattern / Module Revealing pattern is the most used design pattern

What is module Pattern and revealing module pattern?

Module pattern or revealing module pattern has 2 big advantages: -

- Self-contained independent components.
- Provides Encapsulation and Abstraction.



How many ways are there to create JavaScript objects ?

There are four ways of creating JavaScript objects:-

- By using Literal.
- By using Object.create()
- Constructor way of creating objects.
- By using ES6 Classes.

How can we do inheritance in JavaScript?

JavaScript uses object inheritance or prototypical inheritance. Inheritance is done using Prototype object.

What is prototype in JavaScript?

Every JavaScript object has a Prototype object. It's an inbuilt object provided by JavaScript. When you set the prototype object, the prototype object becomes the parent object of the current object.

Explain Prototype chaining?

Prototype chaining is a process where the property/methods are first checked in the current object , if not found then it checks in the prototype object , if does not find in that it try checking the prototypes prototype object , until he get the prototype object null.

What is Let Keyword?

“Let” helps to create immediate block level local scope.

Are Let variables hoisted?

Yes, they are hoisted but not initialized. So, if you try to access the variables you will get an uninitialized error.

Explain Temporal Dead Zone?

TDZ it's a period or it's a state of a variable where variables are named in memory but they are not initialized with any value. During this time if you try access the variable you will get initialized error.



Let vs Var

	Var	Let
Scope	Scoped to the Immediate function body.	Scoped to the immediate enclosing block.
Initialized value	Value initialized with Undefined	Value initialized with nothing.

Tricky Question around Concatenation

What will be the output of the console codes below. Output will be

1010

20

24

```
var d = "10";  
var d1 = "10";  
console.log(d+d1);  
var i = 10;  
var i1 = 10;  
console.log(i+i1);  
console.log(1+1+"4");
```

Happy Learning, Happy Job Hunting....!!!

