**JAVASCRIPT**

**Q1.What is JavaScript?**

JavaScript is a scripting language. It is different from Java language. It is object-based, lightweight, cross-platform translated language. It is widely used for client-side validation. The JavaScript Translator (embedded in the browser) is responsible for translating the JavaScript code for the web browser.

**Q2. What are the different data types present in javascript?**

To know the type of a JavaScript variable, we can use the typeof operator.

**Primitive types**

1. String - It represents a series of characters and is written with quotes. A string can be represented using a single or a double quote.
2. Number - It represents a number and can be written with or without decimals.
3. BigInt - This data type is used to store numbers which are above the limitation of the Number data type. It can store large integers and is represented by adding “n” to an integer literal.
4. Boolean - It represents a logical entity and can have only two values : true or false. Booleans are generally used for conditional testing.
5. Undefined - When a variable is declared but not assigned, it has the value of undefined and it’s type is also undefined.
6. Null - It represents a non-existent or a invalid value.
7. Symbol - It is a new data type introduced in the ES6 version of javascript. It is used to store an anonymous and unique value.

**Non-primitive types**

Primitive data types can store only a single value. To store multiple and complex values, non-primitive data types are used.

Object - Used to store collection of data.

**2) List some features of JavaScript.**

Some of the features of JavaScript are:

* Lightweight
* Interpreted programming language
* Good for the applications which are network-centric
* Complementary to Java
* Complementary to HTML
* Open source
* Cross-platform

**Q3. Who developed JavaScript, and what was the first name of JavaScript?**

JavaScript was developed by Brendan Eich, who was a Netscape programmer. Brendan Eich developed this new scripting language in just ten days in the year September 1995. At the time of its launch, JavaScript was initially called Mocha. After that, it was called Live Script and later known as JavaScript.

**Q4. List some of the advantages of JavaScript.**

Some of the advantages of JavaScript are:

* Server interaction is less
* Feedback to the visitors is immediate
* Interactivity is high
* Interfaces are richer

**Q5. List some of the disadvantages of JavaScript.**

Some of the disadvantages of JavaScript are:

* No support for multithreading
* No support for multiprocessing
* Reading and writing of files is not allowed
* No support for networking applications.

**Q6. Define a named function in JavaScript.**

The function which has named at the time of definition is called a named function. For example

*function msg()*

*{*

*document.writeln("Named Function");*

*}*

*msg();*

**Q7) Name the types of functions**

The types of function are:

**Named -** These type of functions contains name at the time of definition. For Example:

*function display()*

*{*

*document.writeln("Named Function");*

*}*

display();

**Anonymous** - These type of functions doesn't contain any name. They are declared dynamically at runtime.

*var display=function()*

*{*

*document.writeln("Anonymous Function");*

*}*

*display();*

**Q8) Define anonymous function**

It is a function that has no name. These functions are declared dynamically at runtime using the function operator instead of the function declaration. The function operator is more flexible than a function declaration. It can be easily used in the place of an expression. For example:

*var display=function()*

*{*

*alert("Anonymous Function is invoked");*

*}*

*display();*

**Q9) Can an anonymous function be assigned to a variable?**

Yes, you can assign an anonymous function to a variable.

**Q10) In JavaScript what is an argument object?**

The variables of JavaScript represent the arguments that are passed to a function.

**Q11) Define closure.**

In JavaScript, we need closures when a variable which is defined outside the scope in reference is accessed from some inner scope.

**Q12) What is the use of window object?**

The window object is created automatically by the browser that represents a window of a browser. It is not an object of JavaScript. It is a browser object.

The window object is used to display the popup dialog box. Let's see with description.

|  |  |
| --- | --- |
| **Method** | **Description** |
| alert() | displays the alert box containing the message with ok button. |
| confirm() | displays the confirm dialog box containing the message with ok and cancel button. |
| prompt() | displays a dialog box to get input from the user. |
| open() | opens the new window. |
| close() | closes the current window. |
| setTimeout() | performs the action after specified time like calling function, evaluating expressions. |

**Q13) How to write a comment in JavaScript?**

There are two types of comments in JavaScript.

* Single Line Comment: It is represented by // (double forward slash)
* Multi-Line Comment: Slash represents it with asterisk symbol as /\* write comment here \*/

**Q14) How to create a function in JavaScript?**

To create a function in JavaScript, follow the following syntax.

function function\_name(){

//function body

}

**Q15. What are the scopes of a variable in JavaScript?**

The scope of a variable is the region of your program in which it is defined. JavaScript variable will have only two scopes.

• Global Variables − A global variable has global scope which means it is visible everywhere in your JavaScript code.

• Local Variables − A local variable will be visible only within a function where it is defined. Function parameters are always local to that function.

**Q16. What is the purpose of ‘This’ operator in JavaScript?**

The JavaScript this keyword refers to the object it belongs to. This has different values depending on where it is used. In a method, this refers to the owner object and in a function, this refers to the global object.

**Q17. What is Closure? Give an example.**

Closures are created whenever a variable that is defined outside the current scope is accessed from within some inner scope. It gives you access to an outer function’s scope from an inner function. In JavaScript, closures are created every time a function is created. To use a closure, simply define a function inside another function and expose it.

**Q19. Name some of the built-in methods and the values returned by them.**

Built-in Method Values

CharAt() It returns the character at the specified index.

Concat() It joins two or more strings.

forEach() It calls a function for each element in the array.

indexOf() It returns the index within the calling String object of the first occurrence of the specified value.

length() It returns the length of the string.

pop() It removes the last element from an array and returns that element.

push() It adds one or more elements to the end of an array and returns the new length of the array.

reverse() It reverses the order of the elements of an array.

In case you are facing any challenges with these JavaScript Interview Questions, please comment on your problems in the section below.

**Q21. What are the variable naming conventions in JavaScript?**

The following rules are to be followed while naming variables in JavaScript:

* You should not use any of the JavaScript reserved keyword as variable name. For example, break or boolean variable names are not valid.
* JavaScript variable names should not start with a numeral (0-9). They must begin with a letter or the underscore character. For example, 123name is an invalid variable name but \_123name or name123 is a valid one.
* JavaScript variable names are case sensitive. For example, Test and test are two different variables.

**Q22. How does TypeOf Operator work?**

The typeof operator is used to get the data type of its operand. The operand can be either a literal or a data structure such as a variable, a function, or an object. It is a unary operator that is placed before its single operand, which can be of any type. Its value is a string indicating the data type of the operand.

**Q23. What is the difference between null & undefined?**

Undefined means a variable has been declared but has not yet been assigned a value. On the other hand, null is an assignment value. It can be assigned to a variable as a representation of no value. Also, undefined and null are two distinct types: undefined is a type itself (undefined) while null is an object.

**Q24. What is the difference between undeclared & undefined?**

Undeclared variables are those that do not exist in a program and are not declared. If the program tries to read the value of an undeclared variable, then a runtime error is encountered. Undefined variables are those that are declared in the program but have not been given any value. If the program tries to read the value of an undefined variable, an undefined value is returned.