WsCube Tech

System For Satisfaction

Top 55

JavaScript
Interview Questions

& Answers

JavaScript Interview Questions for Freshers & Beginners

1. What is JavaScript?

JavaScript, also known as JS, is a popular dynamic programming language used for front-end development. The primary purpose of using JS on web pages is to show things in a dynamic manner.

In front-end development, HTML and CSS are used to show static content on a web page. In scenarios where you need to show dynamic content, animation, interactive maps, etc., the role of JavaScript comes into play. Developers call it the third layer, followed by HTML and CSS.

You probably have seen the use of JS if you have gone through websites where additional content gets added without reloading, changing colours on the pages, etc. The use of JavaScript programming is common in website development, and web application development, as well as in servers, browsers, games, etc.

Over the years, it has become an in-demand language, and an increasing number of people are learning it with reliable web development course online or offline.

2. What is JavaScript Promise?

A Promise in JavaScript is an object or proxy that sets up the connection between producing code and consuming code. It shows whether the asynchronous operation is pending, fulfilled, or rejected. And if it is fulfilled, it will also show the result.

3. What is JavaScript closure?

When you need access to the features of a function that is located outside the inner function, the role of JS closure comes into play. It is such an option that helps even when the function located outside is closed.

4. What is JavaScript array?

In JS, an array is a variable that can store multiple values. In simple terms, you can say that an array has the ability to store a set of more than one item with the name of a single variable.

5. What are the characteristics of an array in JavaScript?

Following are the main characteristics of JavaScrip array:

- Resizable
- Zero-indexed
- Ability to build shallow copies
- Feature to store collection of different items or data types

6. What is JavaScript function?

A function in JavaScript is a set of code which is used to do a certain task. It can also be used for calculation. Before using the function, ensure that it is defined somewhere.

The *function* keyword in JS is used to execute the functions.

7. What is JavaScript object?

An object in JS is like a thing in real life, having some properties, methods, behaviour, etc. For example, a bike is an object with properties like color, brand name, model, etc. The methods of this bike can be a brake, stop, start, drive, etc.

8. What is isNan() function in JavaScript?

The full form of NaN is Not a Number. So, in simple terms, the isNaN() is a function in JavaScript that is used to check whether a value is a number or not once it is converted to a number.

If the value is Not a Number, it will show true. It should be noted that this function first changes the values to numbers and then checks whether it is NaN or not.

9. What is the difference between client-side and server-side JS?

Such JavaScript interview questions can be asked to both freshers and experienced developers. So, let's know the primary differences between client-side scripting and server-side scripting in JavaScript.

Client-Side	Server-Side
Users can see the source code	Users can't see the source code
It serves the requests of the users and shows the content accordingly.	It is used to manage the database and other backend aspects.
Dependent on browser	No dependency on browsers
Runs on the web browsers	Runs on the web servers
Less data security	Strong data security

10. Is JavaScript case-sensitive?

Yes. It is a case-sensitive language.

11. What is JavaScript DOM?

DOM stands for Document Object Model. It is an interface in coding that is used to represent the data and content of a web document. It helps in enabling programs to modify the style, content, and structure of a web document.

For instance, you can call the web page a document. If you want to edit this page in JavaScript, then the role of DOM comes into play.

12. What are operators in JavaScript?

An operator in JS is simply a symbol that is utilized to do specific operations, like addition, subtraction, and more. The operations are done on values and variables, or you can call them operands.

Let's understand it with an example. If you want to add two values, then the "+" operator will be used.

10 + 45: // 55

Here, + is an arithmetic operator, which has added the given values. 10 and 45 are the operands here.

13. What are the different operators in JavaScript?

Below is a list of JavaScript operators with their details:

- Assignment Operators

Used when you need to assign values to variables.

Operator	Name
=	Assignment operator
+=	Addition assignment
-=	Subtraction assignment
*=	Multiplication assignment
/=	Division assignment
%=	Remainder assignment
**=	Exponentiation assignment

- Comparison Operators

Role of these operators is when you want to do a comparison of two values and then have a result. The result will be a boolean value, showing true or false.

Operator	Name
==	Equal to

!=	Not equal to
===	Strict equal to
!==	Strict not equal to
>	Greater than
>=	Greater than or equal to
<	Less than
<=	Less than or equal to

- Arithmetic Operators

Role of these operators is to do arithmetic calculations.

Operator	Name
+	Addition
-	Subtraction
*	Multiplication
/	Division
%	Remainder
++	Increment
- -	Decrement
**	Exponential

- Logical Operators

Used to do logical operators. After the operation, it shows a boolean value (true/false) as the result.

Operator	Name
&&	Logical AND
||	Logical OR
!	Logical NOT

● String Operators

Used for concatenation of strings.

Operator	Meaning
typeof	To know the type of the variable
instanceof	To know whether an object is an instance of an object type

● Bitwise Operators

Used when you need to do operations binary numbers.

Operator	Name
&	Bitwise AND
|	Bitwise OR
^	Bitwise XOR
~	Bitwise NOT
>>>	Zero-fill right shift
>>	Right shift
<<	Left Shift

14. What is JavaScript event?

Every action that occurs in code or programming is an event. For instance, the loading of a page is an event. Clicks by the end users on a button are an event. The role of events in JavaScript is to make the program understand that some action has been taken and to react accordingly to that action.

15. What is JavaScript callback?

The callback is a function in JavaScript. Its role is to work as an argument by getting passed to other functions. When it is passed to the other functions, those functions will also have the argument executed.

Since it is passed in functions to call back the arguments in more functions as well, its name is justified. It must be noted that you can use callback in other functions only if they are already executed.

16.   How to write hello world in JS?

This is one of the basic JavaScript interview questions for freshers. Writing a hello world program in JS has three different ways, as discussed here:

- console.log()

// write hello world program in JS
console.log('Hello World');

- alert()

// write hello world program in JS
alert("Hello, World!");

- document.write()

// writing hello world program in JS
document.write('Hello, World!');

17.   What is BOM in JavaScript?

BOM stands for Browser Object Model. This is one of the most crucial parts of JavaScript in terms of using it on the web part. It helps you to know the functionalities of a browser using objects. As a result, the JS-based projects can interact with the browser.

18.   What are comments in JavaScript?

JS comments are simply used to represent a comment or message related to the code. For example, we can use comments to mention details of the code, recommendations, warnings, etc. It should be noted that the JS engine will neglect the comments.

19.   What is runtime environment in JavaScript?

The runtime environment is the place to run or execute a program. This environment can access the objects, libraries, etc. and hence runs the code accordingly.

Generally, there are two types of JS environments used by a developer. One is the browser-based runtime environment, and another is the NodeJS-based runtime environment.

The browser-based runtime environment makes use of a JS engine, web APIs, an event loop, and the callback queue.

20.   What are the advantages of JavaScript?

Following are the primary advantages or benefits of using JavaScript:

- Fast Performance

Since JS is an interpreted language, you don't have to compile it every single time it runs. As a result, it speeds up the development process. Furthermore, it runs on the client side,

where it doesn't depend on the server. This again optimizes the performance of the website or web app by avoiding the need for requesting resources from the web server.

● Easy to Understand and Simple

Even if you are a beginner with no knowledge of coding, you will find this language easy to learn. Opting for an offline or online web development course further makes things effortless for you so that you can become well-versed with the complete website and web application development skills.

● Works Well With Other Languages and Systems

JavaScript is an interoperable language which means it runs well with other languages and web technologies.

● Cross-platform Development

There are several JS frameworks that help you to use JavaScript for cross-platform development. For example, you can use React Native framework to use JS for mobile app development. You can use Electron to implement JS for desktop app development.

● Frameworks and Libraries

The wide range of JavaScript libraries and frameworks make it an ideal choice for programmers and developers. The tasks can be performed with minimum efforts, accelerating the development process. In addition, these tools enable plenty of other benefits, like cross-platform development.

21. What is JavaScript used for?

Here are the primary uses and applications of JavaScript:

● Creating Interactive Web Pages

Using JS, developers can make web pages more interactive and appealing. For example, new features can be added that bring some functionalities to the users and also enhance the overall UX.

Here are some examples of JavaScript in use on web pages.

- Hover colours on buttons
- Carousel slider
- Images zoom in/out
- Countdown timer
- Animations
- Hamburger menu

- ● Web-based Game Development

You can build games using JavaScript that runs on browsers. For example, you can build puzzles, racing games, role-playing games, etc. A few of the popular games running on JavaScript include Angry Birds, CrossCode, Polycraft, HexGL, etc.

- ● Web App Development

In addition to robust and highly-interactive websites, you can also develop web applications using JavaScript. For instance, Google Maps is one such web app where JS is used.

- ● Mobile App Development

Using the wide range of JavaScript frameworks available today, you can also develop mobile games. For example, React Native is one popular JS framework for app development.

- ● Web Servers

Numerous server-side activities can be managed using JavaScript and relevant frameworks.

- ● User input validation when a user is about to submit a form
- ● Show pop-ups and dialog boxes
- ● Change the look of HTML docs
- ● Setting up dynamic forms
- ● Show date and time

22.   Who developed JavaScript?

Brendon Eich developed JavaScript.

23.   What are the disadvantages of JavaScript?

While preparing for the JavaScript interview questions and answers in 2023, don't forget to know about the main drawbacks or disadvantages of JS.

- ● Non-restrictive

Compared to other languages, JS is a bit more non-restrictive. Developers need to be attentive so that they can implement everything as required. That's why good web development courses cover these aspects of JavaScript so that the developers know the best practices.

- ● Tricky Debugging

Since JS runs on the client side in the browser, the debugging options and features are limited.

- ● Security

Again, the client-side running of the language makes it a bit less secure. Developers need to be aware of these aspects of JavaScript so that they don't leave any space available for attackers.

24. What is the difference between JavaScript and Java?

There are several differences between Java and JavaScript. Whether you are a fresher or an experienced professional, this is among the top JavaScript interview questions for you.

Below, we have curated a tabular comparison of Java vs JavaScript so that it becomes easier for you to understand the main differences.

Java	JavaScript
Object-oriented programming language	Object-based scripting language
Can be used for complicated tasks and processes	Can't be used for complicated tasks
Needs code compilation	Text-based code
Independent language	Needs to be used with HTML
Strongly typed programming language. Need to declare variables before using them in the program.	Loosely typed language. No issues whether data types are declared or not
It's statically-type	It's dynamically-typed
High memory consumption	Low memory consumption
Saved as byte code	Saved as source code
For concurrency, it uses threads	For concurrency, it uses events
.java extension used to save programs	.js extension used to save programs
Supports multithreading	Doesn't support multithreading
Objects are based on class	Objects are based on prototype
Need JDK or Java Development Kit to run the code	Need text editor to run the code
Primarily used for backend development	Can use for both front-end and back-end

25. What was the first name of JavaScript?

During the interview, you can be asked what was JavaScript called when it was developed, or what was the former name of JS. You must be prepared for such JavaScript interview questions and answers.

The original name of JavaScript was Mocha when it was developed. It was later changed to LiveScript and then finally became JavaScript.

26. When was JavaScript invented?

It was developed in 1995.

27.   What is JavaScript ES6?

ES6 stands for ECMAScript 6. It is a version of JavaScript which was released in 2015. Hence, it is also called ES 2015.

There are plenty of new features in JavaScript ES6 compared to the prior versions. These are intended to write better and clean code, while helping developers to get more done with less code.

28.   What is a named function in JS?

As the term suggests, a named function is simply a function in JS that has been given a name. This name is given with the use of syntax. The function keyword in JavaScript is used to assign a name to the function or make it a named function. This concept should be in the list of top JavaScript interview questions and answers for freshers.

29.   What is an anonymous function?

Unlike named functions, anonymous functions are the ones that do not have any names. Such functions are declared without the use of identifiers.

There are certain rules for using an anonymous function in JavaScript. First, you can't access it right after creating it. For this, you need to use a variable where the anonymous function is saved.

30.   What is the difference between JavaScript and JScript?

You need to know the differences between the two as these sound similar. This can be one of the top JavaScript interview questions for freshers.

JavaScript	JScript
A trademark of Oracle Corp.	Microsoft owns JScript
No support for active content creation	Supports active content creation
Can manage multi-browser compatibility	Supports Internet Explorer only
Code runs in browser	Code runs only in Internet Explorer
Can't access objects of the browser	Can access objects of Internet Explorer
Widely used	Not popular as it is supported by Internet Explorer only

JavaScript Interview Questions for Experienced

31. Which are the different states of a JS Promise?

JavaScript Promise can have any of the three states:

- **rejected**: when the operation fails
- **pending**: when it's neither rejected nor fulfilled
- **fulfilled**: when the operation is successful

32. What is the difference between event.preventDefault() and event.stopPropagation() methods in JavaScript?

Among the list of JavaScript interview questions for 3 years experience or above, keep such concepts and learn about them.

- preventDefault() method

It is used when you want to *prevent* the *default* action of elements in the browser. You must know that not all actions can be cancelled, and is applicable to only cancellable events.

Syntax:
event.preventDefault();

- stopPropagation() method

It is used to stop the propagation of the parent element so that it can not find access to specified events.

Syntax:
event.stopPropagation();

33. How many ways are there to create an object in JavaScript?

There are three ways to create a JavaScript object:

Ways	Syntax
Object literal	object={property1:value1,property2:value2.....propertyN:valueN}
Using new keyword	var objectname=new Object();
Using object constructor	var objectname=new Object();

34. Which method can we use in order to find out the character from a particular index?

For this, we can use the string charAt() method.

For example:

var str="WsCube Tech";
document.writeln(str.charAt(3));

35. How can we use an external JavaScript file?

For doing so, we need to add the below-mentioned script tag to the header:

<script type="text/javascript" src="wscubetech.js"></script>

Here, wscubetech.js is the name of the external JS file we are looking to use.

36. What is JavaScript prototype?

A prototype in JS is one of the most useful objects using which developers can inherit one object's features to another. You can say that a prototype is linked to all the objects and functions in JS. That's what it makes capable of inheriting the features of an object.

37. What is the role of JavaScript callback function?

Since numerous actions in JS are asynchronous, these actions are not capable of holding a program from running before completion. Using the callback function, we can define when to run the code.

38. What is the use of window object in JS?

In JavaScript, the window object shows that a window is open in the browser. This object supports all the popular web browsers and therefore the objects, functions, as well as variables are members of the window object.

Moreover, you can say that the global variables of JS are considered properties, whereas the global functions are considered methods of the window.

39. What is the use of history object in JavaScript?

The use of the JS history object is to find the web URLs that a user has visited in the browser. In addition, it also helps in browsing the last and next pages, as well as specific pages that a user has visited.

As an important property of the window object, the history object is accessible by:

- window.history
- history

40.   How to use JavaScript in HTML?

The primary purpose behind using JavaScript on HTML pages is to make them interactive and dynamic.

For adding JS code to HTML code, the <script> tag is used. The JS code that you want to add to the HTML is used within the <script> tag, whether you want to place it in the <head> or <body> section.

This method is recommended for small codes. However, for JS scripts that are heavy, it would be great to opt for a dedicated JavaScript file. It helps you to reduce the overall maintenance of the site, differentiates the JS code and HTML code, and optimizes the loading speed.

41.   What are the benefits of using JavaScript comments?

If you have been a developer using JS for quite some time now, then this can be among the top JavaScript interview questions for experienced professionals. You must know that there are a couple of good reasons to use comments in JavaScript.

- Adding information about the program or specific lines of code, helping the users to get the scope or use of that code.
- There are several instances when you need to write a few lines of code on a temporary basis. On such occasions, you can add a comment to the code like "to be removed later on". And when you want to remove it, the comment helps you easily find that code, instead of searching or reading every line of code.

42.   What are the different types of JS comments?

Whether you are a beginner or someone with experience, knowing the different types of comments in JavaScript is important. It's because this can be among the top interview questions on JavaScript for freshers and experienced both.

To answer, start by saying that there are two types of comments.

- Single-line comments

These comments are written with two forward slashes (//) before your message of the comment. You can use single-line comments before and after the statement.

Before statement
<html>
<body>
<script>
// This is your single-line comment
document.write("Welcome to JavaScript Interview Questions");
</script>
</body>

</html>

After statement
<html>
<body>
<script>
var x=15;
var y=30;
var z=x+y;
//adding the value of variables x and y
document.write(c);//add 15 and 30
</script>
</body>
</html>

- Multi-line comments

Usually the developers prefer multi-line comments more because these can be used to represent single lines and multiple lines of comments both.

For using it, you need to use a forward slash with an asterisk (at the opening of the comment), and an asterisk with a forward slash (at the closing of the comment).

Example:

<html>
<body>
<script>
/* This is your multi-line comment.
Browser won't display it */
document.write("Learn Top JavaScript Interview Questions");
</script>
</body>
</html>

43. What is null and undefined in JavaScript?

null in JS is an object which is used to represent that a variable doesn't have any value. This is not available by default. The developer needs to do it intentionally.

Whereas, *undefined* is a global object in JS which means that the declared variable has not been assigned any value.

44. What is void in JavaScript?

As you might know, the meaning of void is empty. In the case of JS, the void is actually an operator with its role when a function doesn't return any result. The result it will return will be undefined.

45.   Why do we use strict mode in JS?

The purpose of using strict mode in JavaScript is to create silent errors. It helps in building an expression named 'use strict' so that we can easily enable the strict mode.

Using it, we can modify the normal JS semantics, such as converting the silent errors to throw errors. As a result, silent errors can be avoided. In addition, the performance of the code can be improved in several cases when we use the strict mode.

46.   What is JavaScript hoisting?

It is a technique in JS that helps in using a variable, function, or class before the code execution or declaring these things.

What hoisting in JavaScript does is prioritize the variables, classes, and functions by shifting them to the top level. As a result, you can find their values without code execution. It will not show any errors.

In simple words, the role of JS hoisting is to have the feature to call functions, variables, or classes even if you have not defined them in your code.

47.   Which are the best JavaScript frameworks?

The top 10 popular frameworks of JavaScript are:

- ReactJS
- AngularJS
- VueJS
- NodeJS
- BackboneJS
- EmberJS
- Meteor
- Polymer
- Mithril
- Aurelia

48.   What is an argument object?

An argument object in JavaScript is a set of multiple arguments stored in the form of arrays. This is used at the time of invoking the functions.

It is an in-built JS object that can be accessed only inside a function. Also, this function needs to have the values of the arguments being passed.

49.   How can you use JS to find the operating system of the client machine?

We can make use of the navigator.appVersion string to find the client OS version.

50.   How can you use JS to modify the background color of an HTML document?

We can use the following code to do so:

```
<script type="text/javascript">
document.body.bgColor="blue";
</script>
```

In place of "blue", we can use any colour that we intend to use.

51.   What is the best way for exception handling in JavaScript?

JS exception handling is performed using try, catch, finally, and throw keywords. Developers can use try or catch blocks to handle exceptions easily.

52.   Explain the role of the debugger keyword in JS.

The debugger keyword in JavaScript is used to halt the program's execution at the point you implement it. It helps you to control the code execution and its flow in a manual manner.

53.   What is the syntax of the JavaScript anonymous function?

Here is the syntax for an anonymous function in JavaScript:

```
function() {
    // Function Body
}
```

54.   How can we create a JavaScript function?

The below syntax can be used for creating a function in JS:

```
function function_name(){
//function body
}
```

55.   Is it possible to assign an anonymous function to a variable?

Yes. We can do it.

Learn JavaScript

With WsCube Tech's Online Course

This comprehensive course Includes:

- 10+ Hours of Video Sessions
- Professional Certification
- Training by Experts
- Top-rated MCQs and Quizzes
- Interview Preparation
- Accessible on mobile and desktop both

~~₹3999~~ *87% OFF*

₹499

View Details   Full Curriculum

A Brief About WsCube Tech

(India's Most Trusted IT Training Institute)

WsCube Tech is a leading IT training institute and software development company based in Jodhpur. Since 2011, WsCube Tech has trained 1,50,000+ students and offered internship opportunities to 3,500+ candidates.

In addition, WsCube Tech is one of the fastest-growing tech-based YouTube channels in India, with a community of 1.8+ Million subscribers and 20+ Million monthly views.

With an expert team of trainers in various technological fields, the institute has helped thousands of students across India and other Asian countries to acquire new skills and explore high-paying career opportunities.
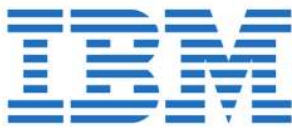
Our learners are working at top brands, enterprises, and unicorns across India and globally.

Live Online Certification Courses Offered by WsCube Tech

Rigorous regular training with interactive live classes

☐ **Ethical Hacking Certification**

☐ **Penetration Testing Certification**

☐ **Web Development Certification**

☐ **Content Writing Certification**

☐ **SEO Certification**

☐ **Digital Marketing Certification**

☐ **Data Science Certification**

☐ **Python Certification**

☐ **WordPress Certification**

☐ **Flutter Certification**

☐ **Android App Development Certification**

Students We've Trained Work at Renowned Companies, Startups, and Unicorns

Let's connect on social media and around the web:

- ➢ Website: https://www.wscubetech.com/
- ➢ YouTube: https://www.youtube.com/c/wscubetechjodhpur
- ➢ Facebook: https://www.facebook.com/wscubetech.india
- ➢ LinkedIn: https://www.linkedin.com/company/wscubetech
- ➢ Instagram: https://www.instagram.com/wscubetechindia/
- ➢ Twitter: https://twitter.com/wscubetechindia