



Javascript Interview Questions

1.What is JavaScript?

Ans.JavaScript is a high-level, interpreted programming language used to make web pages interactive. It can be run in any browser.

2.What are the data types in JavaScript?

Ans.JavaScript has six primitive data types: string, number, boolean, null, undefined, and symbol. Objects ,array and date are non primitive .

3.What is the DOM?

Ans.The Document Object Model (DOM) is a programming interface for web documents. It represents the structure of a document as a tree of objects that can be manipulated with programming languages like JavaScript.

4.Explain the difference between null and undefined.

Ans.null is an assignment value representing the intentional absence of any object value, while undefined is a default value assigned to a variable that has not been initialized.

5.What is the difference between let, const, and var?

Ans.var is function-scoped, let is block-scoped, and const is also block-scoped but cannot be reassigned.

6.What is hoisting in JavaScript?

Ans.Hoisting is a JavaScript behavior where variable and function declarations are moved to the top of their containing scope during compilation.

7.Explain closures in JavaScript.

Ans.A closure is a function that has access to its own scope, the outer function's scope, and the global scope, allowing it to access and manipulate variables from these scopes.

8.What is the this keyword in JavaScript?

Ans.this refers to the object to which a function or method belongs. Its value is determined by how a function is called.

9.What is the event loop in JavaScript?

Ans.The event loop is the execution model that processes messages in a queue, implementing non-blocking I/O operations.

10.What is the purpose of the bind method?

Ans.The bind method creates a new function that, when called, has its this keyword set to a specific value.

11.Explain the concept of promises.

Ans.Promises are objects that represent the eventual completion or failure of an asynchronous operation. They simplify the handling of asynchronous tasks.

12.What is callback hell?

Ans.Callback hell (or the pyramid of doom) refers to the situation when multiple nested callbacks make the code hard to read and maintain. It often occurs in asynchronous JavaScript.

13.What is the difference between == and ===?

Ans.== checks for equality after type coercion, while === checks for equality without type coercion (strict equality).

14.Explain the concept of prototypal inheritance.

Ans.In JavaScript, objects can inherit properties and methods from other objects through their prototype chain. Each object has a prototype object, and properties/methods are inherited from that prototype.

15.What is the purpose of the typeof operator?

Ans.typeof is an operator that returns a string indicating the type of the operand.

16.What is the difference between slice and splice?

Ans.slice creates a shallow copy of a portion of an array, while splice can add or remove elements from an array, modifying it in place.

17.What is the purpose of the map function in JavaScript?

Ans.The map function creates a new array with the results of calling a provided function on every element in the array.

18.How does event delegation work in JavaScript?

Ans.Event delegation involves assigning a single event listener to a common ancestor of multiple elements. Events are then handled based on the target element.

19.What is the purpose of the async and await keywords?

Ans.async is used to declare an asynchronous function, and await is used to wait for a promise to resolve before continuing the execution of an asynchronous function.

20.How does the reduce function work in JavaScript?

Ans.The reduce function is used to accumulate a single result from elements of an array by applying a callback function. It takes an initial value and the callback as arguments.

21.What is the purpose of the localStorage and sessionStorage objects?

Ans.localStorage and sessionStorage are Web Storage objects that allow developers to store key/value pairs in a web browser with no expiration time (localStorage) or for the duration of the page session (sessionStorage).

22.Explain the concept of memoization.

Ans.Memoization is an optimization technique where the results of expensive function calls are cached and returned when the same inputs occur again.

23.What is the purpose of the fetch API in JavaScript?

Ans.The fetch API is used to make asynchronous HTTP requests, providing a more flexible and powerful alternative to the older XMLHttpRequest.

24.What is the difference between arrow functions and regular functions?

Ans.Arrow functions do not have their own this or arguments and have a shorter syntax. They are especially useful for concise one-liners.

25.Explain the concept of a promise chain.

Ans.A promise chain is a series of promises connected by .then() and .catch() handlers, allowing sequential execution of asynchronous operations.

26.How does the event bubbling and capturing work in JavaScript?

Event bubbling is the default behavior where the event starts from the target element and bubbles up the DOM hierarchy. Event capturing is the opposite, starting from the root and trickling down.

27.What is the difference between a shallow copy and a deep copy?

Ans.A shallow copy creates a new object but does not create copies of nested objects. A deep copy creates a new object and recursively copies all nested objects.

28.What is the purpose of the arguments object in JavaScript?

Ans.The arguments object is an array-like object accessible inside functions that contains the values of the arguments passed to that function.

29.How does JavaScript handle asynchronous code execution?

Ans.JavaScript uses an event-driven, single-threaded model with non-blocking I/O operations. Asynchronous code is managed using callbacks, promises, and async/await.

30.What is the purpose of the use strict directive in JavaScript?

Ans."use strict" is used to enable strict mode in JavaScript, catching common coding errors and preventing the use of certain features.

31.What is the purpose of the Array.isArray method?

Ans.Array.isArray is used to determine whether a value is an array.

32.How does the setTimeout function work in JavaScript?

Ans.setTimeout is a function that executes a provided function or a piece of code after a specified delay (in milliseconds).

34.Explain the concept of event delegation in JavaScript.

Ans.Event delegation involves assigning a single event listener to a common ancestor of multiple elements. Events are then handled based on the target element.

35.Explain the concept of currying in JavaScript.

Ans. Currying is a technique in functional programming where a function is transformed into a sequence of functions, each taking a single argument.

36. How does the map function work in JavaScript?

Ans. The map function creates a new array with the results of calling a provided function on every element in the array.

37. What is the purpose of the bind method in JavaScript?

Ans. The bind method is used to create a new function with a specified this value and an initial set of arguments.

38. What is the purpose of the let keyword in JavaScript?

Ans. The let keyword is used to declare block-scoped variables, allowing variables to be limited in scope to the block, statement, or expression on which it is used.

39. What is the difference between a function call and a promise in JavaScript?

A function call is a function that is passed as an argument to another function and executed when the function has done its job. A promise, on the other hand, is an object that represents the eventual completion of an asynchronous operation and can be used to handle success or failure in a more structured way.

40. What is the difference between a class and an object in JavaScript?

A class is a template for creating objects, while an object is an instance of a class. A class defines the properties and methods an object will have, while an object has its own state and behavior.

41. What is the purpose of the isNaN() function in JavaScript?

The isNaN() function is used to determine whether a value is NaN (not a number) or not. Returns true if the value is NaN and false if it is a valid number.

