

# JavaScript Interview Questions

- What is programming language?
- What is front-end?
- What is back-end?
- What is HTML
- What is CSS
- What is JavaScript
- Difference between java and JavaScript?
- Is JavaScript a case-sensitive language?
- Tell us about role of HTML, CSS, and JavaScript?
- Tell us about the history of JavaScript?
- What is ECMAScript and how is it related to JavaScript?
- What are the different versions of JavaScript?
- What is Es5 and Es6?
- What are the different places where we can write JavaScript code?
- Difference between client side and server side JavaScript?
- Explain below JavaScript features?
  - High Level Language
  - Garbage Collected
  - Interpreted Language (JIT)
  - Multi Paradigm
  - Prototype based functions
  - First Class Function
  - Dynamically Type/ Dynamic
    - Is javascript a statically typed or a dynamically type language.
  - Single Threaded
  - Non-Blocking Event Loop
- What is value and variable?
- What are rules of defining a variable?
- What is data type
- What are the different types of data types?
- What is Symbol?
- What is BigInt?
- What is the difference between primitive and non-primitive data types?
- Why is the typeof NaN?
- What is the typeof null?
- What is comment and how to add a single line or multi line comment in JavaScript?
- What is Infinity?
- What is the significance of use strict?
- How JavaScript behave in non-strict mode?
- What is a statement in programming?
- How to write a single line of statement?
- How to write a multi-line statement?
- What is a code block?
- What is let, const and var?
- Difference between let, const and var?
- When to use let, const and var?
- What is ++, -- operators?
- What is typeof operator?
- What is reminder operator?

- Explain logical &&, || and ! operators
- What are the different ways of writing output in JavaScript? Explain each
  - console.log
  - document.write()
  - window.alert()
  - innerHTML
- What is a string?
- How to create a String? Explain each:
  - String Literal
  - String Object
- Difference between string Literal vs string object?
- What is string length property?
- How to convert string to array?
- What is String Template Literal?
- Difference between String Literal and String template literal?
- Difference between slice, substring and substr functions?
- What is the difference between exec and test function in JavaScript?
- What is the difference between padStart and padEnd functions?
- What is the difference between indexOf and includes?
- What is the difference between indexOf and lastIndexOf function?
- What is the difference between search and match functions?
- What is Implicit type conversion?
- What is Explicit type conversion?
- What is Coercion?
- What are different popup boxes available in core JavaScript? Explain each:
  - Alert Box
  - Confirm Box
  - Prompt Box
- What are the truthy and falsy values in JavaScript?
- Give examples of falsy values
- What is Loose equality operator
- What is Strict equality operator
- Difference between == and ===
- Difference between while and do while loop
- What is for of loop
- What is for in loop
- What is Switch
- What are cases in switch?
- What is default case?
- What are break and continue words?
- What is scoping?
- What are the different types of scopes in JavaScript? Explain each?
  - Global Scope
  - Functional scope
  - Block scope
- What is function?
- What is functional programming?
- What are generator function?
- What are the different ways of creating function in JavaScript?
- What is function declaration?
- What is currying in JavaScript?
- What is function expression?
- What is arrow function?
- What is anonymous function? Where do we use this function?

- What is the difference between function declaration and function expression?
- What is the difference between function expression and arrow function?
- What is difference between parameter and argument?
- What are the default parameters? How to add default parameters in a function?
- What is call by value and what is call by reference?
- What is High order function? Give one example.
- What is First class function? Give one example.
- What is callback function? When to use callback functions?
- What is callback hell?
- What is setTimeout? How to clear a setTimeout?
- What is setInterval? How to clear a setInterval?
- What are the call, apply and bind functions? Give example of each.
- What is IIFE (Immediately invoked function expression)?
- What is closure? When to use closure? What are the benefits of using closure?
- What is hoisting?
- What is TDZ(Temporal Dead Zone)?
- What is DRY Principle?
- What is design pattern? Name few famous design patterns?
- What is developer tool?
- Difference between console.log and console.table?
- Difference between console.warn and console.error?
- What is Error? What are the different types of error in JavaScript?
- Explain numbers in JavaScript?
- Difference between number and BigInt?
- What is Number System?
- Explain below functions of Number class:
  - toFixed
  - toString
  - valueOf
  - parseInt
  - parseFloat
  - isNaN
- What is Date object in JavaScript? What are the different ways of creating Date object?
- How will you convert any Number or Date in a format of a difference locale/country?
- What is DOM?
- What is the need of DOM?
- What are the below functions?
  - getElementById
  - getElementsByTagName
  - getElementsByClassName
  - querySelector
  - querySelectorAll
  - write
- What is Node? What is HTMLCollection? What is Element?
- Difference between innerHTML vs textContent?
- What is an event bubbling in javascript?
- What is an event capturing in javascript?
- Difference between event bubbling and capturing?
- Difference between innherHTML and attribute?
- How to change the style of an html element using DOM?
- What is event?
- What is role the event.preventDefault()?
- What are the different types of mouse/keyboard events?
- What is eventListener?
- How to remove a eventListener?
- How to create a DOM element dynamically?

- What are the below BOM objects? Explain each:
  - Window
  - History
  - Navigator
  - Screen
  - Location
  - Timing
  - Cookies
  - LocalStorage
- What is JavaScript engine? What are the famous JavaScript engine names?
- What is Call Stack?
- What is Execution Context?
- How call stack and execution context are interrelated?
- What is Heap memory?
- What is Stack memory?
- What is the difference between heap and stack memory?
- What is Compiler?
- What is interpreter?
- What is the difference between compiler and interpreter?
- What is JIT?
- What is event loop?
- What is inside the execution context?
  - Types of execution context?
    - Global
    - Functional
- What is variable environment?
- What is scope chain?
- What is this keyword? Where to use it? What this keyword denotes?
- What is creation and code phase?
- What will happen if we use this keyword inside a function in strict mode?
- What is the difference between primitive and object?
- What is normal copy?
- What is shallow copy? How to perform shallow copy of an object?
- What is deep copy? How to perform deep copy of an object?
- Where objects are stored? Is object primitive type or non-primitive?
- What is Destructuring ?
- How to reverse values using destructuring?
- How to return two values from function ?
- How destructuring works in array and object?
- How to do destructuring of nested array?
- How to set default values in destructuring?
- What is destructuring object ?
- How we can use destructuring with object?
- How to destructuring remaining value to a single variable?
- How to give alias name to a property name?
- How we can set default values in destructuring object?
- What is nested object destructuring?
- How to destructuring object when passing into a function?
- What is spread operator?
- How to do shallow copy using spread operator?
- How to join multiple arrays using spread operator?
- How to convert a String to array using spread operator?
- How to pass arguments in function using spread operator?
- What is rest parameter?
- Difference between spread and rest operator?
- How to pass variable arguments in function using rest operator?

- What is short circuiting?
- Difference between || and ??
- What is nullish coalescing operator?
- What is optional chaining? What are the benefits of using optional chaining?
- What is an Array?
- What are the properties of an Array?
- Difference between Array Literal and Array Object?
- What is the significance of index in Array?
- Does sort function work for all types of elements?
- When to pass a sorting function sort function?
- Difference between push and unshift, pop and shift?
- Difference between slice, splice?
- Difference between forEach, for of loop?
- Difference between map, filter and reduce function?
- Difference between some and every?
- Difference between flat and flatMap?
- What is an Object?
- Difference between object literal and new object?
- Difference between dot and bracket annotation?
- Explain Object.keys, Object.values and Object.Entries function?
- What is Set?
- What is weakSet in JavaScript?
- How to print set values using for of loop?
- How to create set to Array?
- What is Map?
- What is weakMap in JavaScript?
- What is chaining in Map?
- How the map will behave if we use an Array as key?
- Convert
  - Map to Array
  - Array to Map
  - Object to Map
- How to iterate map using forEach and for of loop?
- What is OOPs?
- What are the 6 principles of OOPs?
- Explain below topics and give one real life example of each topic:
  - Class
  - Object
  - Encapsulation
  - Abstraction
  - Inheritance
  - Polymorphism
- How to inheritance works in JavaScript?
- What is prototypal inheritance?
- What are the different ways of doing prototypal inheritance? Explain below topics;
  - Constructor function
  - ES6 classes
  - Object.create
- What is prototypal chain?
- What is setters and getters in ES6 classes?
- What will happen if we give same name of property of an object and setter and getter?
- What is static function in ES6 classes?
- How to implement inheritance in Constructor functions, ES6 classes and Object.create?
- How to implement encapsulation? How to make fields protected?
- How to make fields and functions private?
- What is chaining methods? How can we implement the same in ES6 classes?

- What is Synchronous and Asynchronous?
- What is AJAX?
- What is API? Explain below topics?
  - SOAP API
  - Rest API
    - Request
    - Response
    - Request Body
    - Query Param
    - Path Variable
    - URL
    - URI
    - Data : JSON/XML/Text
- What is server client architecture?
- What is Promise and fetch?
- How to consume promises?
- How handle rejected promises?
- How to create a Promise?
- What is async/await?
- How to return values from Async function?
- How to run promises in Parallel?
- How to do error handling? Explain try catch and finally?
- Explain some of the promise combinators?
  - Race
  - allSettled
  - any
- What is module in JavaScript?
- How to import and export modules?
- What is Polyfilling?
- What is Transpiling?
- Difference between polyfilling and transpiling?