# What is JavaScript?

ANS : 🡪 JavaScript is a scripting or programming language that allows you to implement complex features on web pages every time a web page does more than just sit there and display static information for you to look at displaying timely content updates, interactive maps, animated 2D/3D graphics, scrolling video jukeboxes, etc

# Enumerate the differences between Java and JavaScript?

## ANS : 🡪 JavaScript code is written completely in text and need only be interpreted. Java, on the other hand, must be compiled. They are also used for different types of projects. Java is used to make applications on devices or browsers, while JavaScript is used primarily on HTML documents and browsers.

# What is the use of is NaN function?

### ANS : 🡪 In JavaScript NaN is short for **"Not-a-Number"**. The isNaN() method returns true if a value is NaN. The isNaN() method converts the value to a number before testing it.

# Which is faster between JavaScript and an ASP script?

### ANS :🡪 In between JavaScript and ASP script, JavaScript is faster than ASP script. Because, JavaScript is restricted to browser side scripting, it cannot process server-side functions like connecting to a database and performing operations on it

# Which company developed JavaScript ?

### ANS :🡪 JavaScript was invented by Brendan Eich in 1995. It was developed for Netscape 2, and became the ECMA-262 standard in 1997. After Netscape handed JavaScript over to ECMA, the Mozilla foundation continued to develop JavaScript for the Firefox browser.

# What are undeclared and undefined variables ?

### ANS :🡪 Undefined variable means a variable has been declared but does not have a value. Undeclared variable means that the variable does not exist in the program at all.

# Write the code for adding new elements dynamically?

### ANS :🡪 Syntax: **document. createElement("<tagName>");**

### Where <tagName> can be any HTML // tagName like div, ul, button, etc. // newDiv element has been created For Eg: let newDiv = document. createElement("div");

# What is a prompt box?

### ANS :🡪 A prompt box is often used if you want the user to input a value before entering a page. When a prompt box pops up, the user will have to click either "OK" or "Cancel" to proceed after entering an input value. If the user clicks "OK" the box returns the input value. If the user clicks "Cancel" the box returns null.

# What is ‘this’ keyword in JavaScript?

### ANS :🡪 In JavaScript, the this keyword allows us to: Reuse functions in different execution contexts. It means, a function once defined can be invoked for different objects using the this keyword. Identifying the object in the current execution context when we invoke a method.

# What is the working of timers in JavaScript?

### ANS :🡪 A timer is used to execute some task after a particular time interval. Basically, with the help of a timer in JavaScript, we can delay the code execution. With the help of the timer function in JavaScript, we can achieve asynchronous functionality also.

# Which symbol is used for comments in Javascript?

### ANS :🡪 Single line comments start with // . Any text between // and the end of the line will be ignored by JavaScript.

### Multiple line comments start with /\* text /The compiler ignores everything from / to /. /\* documentation / This indicates a documentation comment (doc comment, for short). The compiler ignores this kind of comment, just like it ignores commen

### ts that use / and \*/.

# What is === operator?

### ANS :🡪 The strict equality ( === ) operator checks whether its two operands are equal, returning a Boolean result. Unlike the equality operator, the strict equality operator always considers operands of different types to be different.

# How you can submit a form using JavaScript?

### ANS :🡪 When we click on the link, the function submitForm() will get executed. This function will get the element object using DOM getElementById() method by passing the form id to this method, then the form will be submitted by using submit() method.

# How can the style/class of an element be changed?

### ANS :🡪 When we click on the link, the function submitForm() will get executed. This function will get the element object using DOM getElementById() method by passing the form id to this method, then the form will be submitted by using submit() method.

# How to read and write a file using JavaScript?

### ANS:🡪 readFile() and rs. writeFile() methods are used to read and write of a file using javascript. The file is read using the fs. readFile() function, which is an inbuilt method.

## What are all the looping structures in JavaScript explain all loop?

### ANS:🡪 Loops are handy, if you want to run the same code over and over again, each time with a different value.

There are FIVE types of loops in JavaScript.

### for - loops through a block of code a number of times

### for/in - loops through the properties of an object

### for/of - loops through the values of an iterable object

### while - loops through a block of code while a specified condition is true

### do/while - also loops through a block of code while a specified condition is true

# What is called Variable typing in Javascript?

### ANS :🡪 Variables are named values and can store any type of JavaScript value. var x = 100; And here's what's happening in the example above: var is the keyword that tells JavaScript you're declaring a variable.

# How can you convert the string of any base to an

# integer in JavaScript?

### ANS :🡪 In JavaScript parseInt() function (or a method) is used to convert the passed-in string parameter or value to an integer value itself. This function returns an integer of the base which is specified in the second argument of the parseInt() function.

# Difference between “==” and “===”?

### ANS :🡪 = is called as assignment operator, == is called as comparison operator whereas It is also called as comparison operator. = does not return true or false, == Return true only if the two operands are equal while === returns true only if both values and data types are the same for the two variables.

# What would be the result of 3+2+”7″ ?

### ANS :🡪 What would be the result of 3+2+”7″, Since 3 and 2 are integers, they will be added numerically. And since 7 is a string, its concatenation will be done. So the result would be 57. **(3+2)= 5 AND (‘ 7 ’ ) Is Sting.**

# What do you mean by NULL in Javascript?

### ANS :🡪 The null value represents the intentional absence of any object value. It is one of JavaScript's primitive values and is treated as falsy for boolean operations.

# What is the function of the delete operator?

### ANS :🡪 The delete operator removes a property from an object. If the property's value is an object and there are no more references to the object, the object held by that property is eventually released automatically.

# What are all the types of Pop up boxes available in

# JavaScript?

### ANS :🡪 There are three types of pop-up boxes in JavaScript namely Alert Box, Confirm Box and Prompt Box .

# How can a page be forced to load another page in

# JavaScript?

### ANS:🡪 location property to make a page redirect, you don't need any jQuery for this. If you want to redirect the user from one page to another automatically, you can use the syntax window. location. replace("page\_url") .

<script language="JavaScript" type="text/javascript" >

location.href="[https://www.sololearn.com](https://www.sololearn.com/)"; (URL PATH)

</script>

# What are escape characters?

### ANS :🡪 Use the backslash character to escape a single character or symbol. Only the character immediately following the backslash is escaped.

# What are JavaScript Cookies?

### ANS :🡪 Cookies are files created by websites you visit. They make your online experience easier by saving browsing information. With cookies, sites can keep you signed in, remember your site preferences, and give you locally relevant content.

# What a pop()method in JavaScript is?

### ANS :🡪 The pop() method removes the last element from an array and returns that element. This method changes the length of the array.

# What is break and continue statements?

### ANS : 🡺 The break statement terminates a while or for loop completely. The continue statement terminates execution of the statements within a while or for loop and continues the loop in the next iteration. The following two examples demonstrate how these statements are used.

# How can generic objects be created?

### ANS: 🡺 In JavaScript, there is the ability to create a generic anonymous object to serve this purpose. It can either be created using new Object() or the shorthand { ... } syntax, and can then be given any properties or methods that are needed.

# What is the use of a type of operator?

### ANS: 🡺 Comparison Operators are used to perform comparisons. Concatenation Operators are used to combine strings. Logical Operators are used to perform logical operations and include **AND, OR, or NOT**. Boolean Operators include AND, OR, XOR, or NOT and can have one of two values, true or false.

# Which keywords are used to handle exceptions?

### ANS: 🡺 The exception handling fundamentals in Java revolve around the five keywords- try, catch, finally, throw, and throws. These keywords form the base of exception handling. All the exception handling mechanisms in Java are a result of these five keywords.

# What is the use of the Push method in JavaScript?

### ANS:🡺 The **push() method** adds one or more elements to the end of an array and returns the new length of the array.

# What is the ‘Strict Mode in JavaScript, and how can it

# be enabled?

ANS:🡺 JavaScript's strict mode is a way to opt in to a restricted variant of JavaScript, thereby implicitly opting-out of "sloppy mode". Strict mode isn't just a subset: it intentionally has different semantics from normal code.

# What is the way to get the status of a CheckBox?

### ANS:🡺 Input Checkbox checked Property

### Set the checked state of a checkbox: function check() { document. ...

### Find out if a checkbox is checked or not: getElementById("myCheck"). checked;

### Use a checkbox to convert text in an input field to uppercase:

### getElementById("fname"). ...

### Several checkboxes in a form: var coffee = document.

# How can the OS of the client machine be detected?

### ANS:🡺 To detect the operating system on the client machine, one can simply use navigator.appVersion or navigator.userAgent property.

### The Navigator appVersion property is a read-only property and it returns a string which represents the version information of the browser.

SYNTAX : navigator.appVersion

# How can a value be appended to an array?

### ANS :🡺 Array#append() is an Array class method which add elements at the end of the array. Parameter: – Arrays for adding elements. Return: Array after adding the elements at the end.

# What is for-in loop in Javascript?

### ANS:🡺 The for...in statements combo iterates (loops) over the properties of an object. The code block inside the loop is executed once for each property.

### SYNTAX : for (x in object) {

### code block to be executed

# 

# What boolean operators can be used in JavaScript?

### ANS:🡺 There are three operators: AND, OR and NOT. They may be used either in a database or in coding and come very hand to developers when building components of a complex logic or flow.

### **OR SYNTAX : result = x || y; // same as x OR y**

### **AND SYNTAX : var result = x && y; // equivalent to x AND y**

### **NOT SYNTAX : var result = ! y;**

# How can a particular frame be targeted, from a

# hyperlink, in JavaScript?

### ANS:🡺 There are two approaches mainly followed:

### Target frame without using JavaScript. // Target attribute has iframe name as its value. < a href = "#" target = "frame-name" >Link</ a > //Name attribute has name of the iframe. ...

### Target frame using JavaScript: //General

### SYNTAX : document.getElementById ( "frame-id" ).src = "url"

# What is the method for reading and writing a file in

# JavaScript?

### ANS;🡺 The read and write operations in a file can be done by using some commands. But the module which is required to perform these operations is to be imported. The required module is ‘fs’ which is called as File System module in JavaScript.

# How are DOM utilized in JavaScript?

### ANS:🡺 The document object Model (DOM) represents the full HTML document. When an HTML document is loaded within the browser, it becomes a document object. The root element represents the HTML document, its properties, and its methods. With the assistance of a document object, we will add dynamic content to our web page.

# Write about the errors shown in JavaScript?

### ANS:🡺 Right-click anywhere in the webpage and then select Inspect. Or, press F12 . DevTools opens next to the webpage. In the top right of DevTools, the Open Console to view errors button displays an error about the webpage.

# What is unescape() and escape() functions?

### ANS:🡺 escape() and unescape(). The escape() function is used to encode a string, making it safe for use in a URL. The unescape() function is used to decode an encoded string.

### 1) escape() : The escape() function is typically used when encoding a URL parameter or path segment. For example, if you wanted to encode the string "Hello world!" for use in a URL, you would use the escape() function, like this var encodedString = escape("Hello world!");

### 

### 2) unescape() : The unescape() function is typically used when decoding a URL parameter or path segment. For example, if you wanted to decode the string "Hello%20world!" (which is the encoded version of "Hello world!"), you would use the unescape() function, like this

### var decodedString = unescape("Hello%20world!");

# What are the decodeURI() and encodeURI()?

### ANS:🡺 encodeURI() and decodeURI() these functions are introduced to encode/decode non-English characters, such as Latin, Greek letters used in URI (Uniform Resource Identifier). Also, it is helpful to encode special characters, replace whitespaces in URI; sometimes these special characters or whitespaces can delimit the URI (Uniform Resource Locator) .

1.encodeURI(): encodeURI(URI)

2. decodeURI(): decodeURI(encodedURI)

# 

# Why you should not use innerHTML in JavaScript?

### ANS;🡺 InnerHTML does not provide proper validation, so any valid HTML code can be used. This has the potential to break the JavaScript document. Even broken HTML can be used, which can cause unexpected issues.

# How are JavaScript and ECMA Script related?

### ANS:🡺 The standard of scripting languages like JavaScript is ECMAScript. The full form of ECMA is European Computer Manufacturer's Association. ECMAScript is a Standard for scripting languages such as JavaScript, JScript, etc. It is a trademark scripting language specification.

# What is name spacing in JavaScript, and how is it used?

### ANS :🡺 Namespace is a context for identifiers, a logical grouping of names used in a program. Within the same context and same scope, an identifier must uniquely identify an entity.

# 

# What are the important JavaScript Array Method explain

# with example?

### ANS:🡺 An array is an object that can store multiple values at once. For example, **const words = [' agravat ', 'nikhil', 'bapu'];** Here, words is an array.

### ENGTH PROPERTY : 🡺 JavaScript Array length You can find the length of an element (the number of elements in an array) using the length property

### **EXAMPLE : const dailyActivities = [ 'eat', 'sleep'];**

### **// this gives the total number of elements in an array**

### **console.log(dailyActivities.length); // 2**

### PROTOTYPE PROPERTY : 🡺 The prototype data property of a Function instance is used when the function is used as a constructor with the new operator. It will become the new object's prototype. Note: Not all Function objects have the prototype property — see description.

### REVERSE METHOD :🡺 The reverse() method reverses the order of the elements in an array. The reverse() method overwrites the original array. Javascript array reverse() method reverses the element of an array. The first array element becomes the last and the last becomes the first.

### SYNTAX : array.reverse();

### SORT METHOD :🡺 JavaScript Array.sort() Method is used to sort the array in place in a given order according to the compare() function. If the method is omitted then the array is sorted in ascending order.

### SYNTAX: arr.sort(compareFunction)

### POP MATHOD :🡺 The pop() method removes the last element from an array and returns that value to the caller. If you call pop() on an empty array, it returns undefined . Array.prototype.shift() has similar behavior to pop() , but applied to the first element in an array

### SYNTAX : pop()

### SHIFT METHOD : 🡺 The shift() method removes the first element from an array and returns that removed element. This method changes the length of the array.

### SYNTAX : shift()

### PUSH METHOD :🡺 The push() method adds one or more elements to the end of an array and returns the new length of the array.

### SYNTAX : push(element0)

### push(element0, element1)

### push(element0, element1, /\* … ,\*/ elementN)

# How to use DOM and Events?

### ANS: 🡺 HTML DOM events allow JavaScript to register different event handlers on elements in an HTML document. Events are normally used in combination with functions, and the function will not be executed before the event occurs.

# getElementsByTagName Example ?

### ANS:🡺 The complete document is searched, including the root node. The returned HTMLCollection is live, meaning that it updates itself automatically to stay in sync with the DOM tree without having to call document.getElementsByTagName() again

### SYNTAX : getElementsByTagName(name);

### EXAMPLE :

### <body>

### <h1> NIKHIL <h1>

### <script>

### const collection = document.getElementsByTagName("h1");

### document.getElementById("demo").innerHTML = collection[1].innerHTML;

### </script>

### </body>

# Does React use HTML explain with examples ?

### ANS:🡺 **React uses an HTML-in-JavaScript syntax called JSX (JavaScript and XML)**. Familiarity with both HTML and JavaScript will help you to learn JSX, and better identify whether bugs in your application are related to JavaScript or to the more specific domain of React.

# When was React first released ?

### ANS :🡺 React (also known as React.js or ReactJS) is a free and open-source front-end JavaScript library for building user interfaces based on UI components. It is maintained by Meta (formerly Facebook) and a community of individual developers and companies.React can be used as a base in the development of single-page, mobile, or server-rendered applications with frameworks like Next.js. However, React is only concerned with state management and rendering that state to the DOM, so creating React applications usually requires the use of additional libraries for routing, as well as certain client-side functionality.

# State the difference between Real DOM and

# Virtual DOM ?

### ANS : 🡺 Virtual DOM creates a whole tree from scratch every time you rerender. Incremental DOM, on the other hand, doesn't need any memory to rerender the view if it doesn't change the DOM. We only have to allocate the memory when the DOM nodes are added or removed.

# Name the important features of React ?

### ANS : 🡺 Easy creation of dynamic applications: React makes it easier to create dynamic web applications because it requires less coding and offers more functionality, as opposed to JavaScript, where coding often gets complex very quickly. Improved performance: React uses Virtual DOM, thereby creating web applications faster.

# Explain React Router ?

### ANS : 🡺 React Router is a standard library for routing in React. It enables the navigation among views of various components in a React Application, allows changing the browser URL, and keeps the UI in sync with the URL (Uniform Resource Locator) .

# What are the popular animation package in React

# Ecosystem ?

### ANS : 🡺 Animated is one of the most commonly used Animation libraries when building mobile apps with React Native. Apart from being an adaptable and flexible library, it possesses an incredible capacity for better time-control and sequence managing than other libraries.

# Explain the term high order component ?

### ANS : 🡺 A higher-order component (HOC) is an advanced technique in React for reusing component logic. HOCs are not part of the React API, per se. They are a pattern that emerges from React's compositional nature. Concretely, a higher-order component is a function that takes a component and returns a new component.

# 

# Name two types of React component ?

### ANS : 🡺 Components usually come in two types, functional components and class components, but today we will also be talking about pure components and higher-order components.

# Explain the use of the arrow function in React ?

### ANS : 🡺 Arrow functions offer a compressed and short version of a function expression and need fewer keystrokes than regular JavaScript functions from the developer and can be used as a simpler alternative to functions within class components and functional components and event handlers in React.

# Explain pure components in React js ?

### ANS : 🡺 A React component is considered pure if it renders the same output for the same state and props. For this type of class component, React provides the PureComponent base class. Class components that extend the React. PureComponent class are treated as pure components.

# What is the use of empty tags <> </> ?

### ANS : 🡺 The React framework offers a shorthand syntax for fragment components that appears as an empty tag: <> </> . While it is supported in JSX syntax, it is not part of the HTML standard and thus is not supported natively by browsers.

# What is fragements in react ?

### ANS : 🡺 React Fragment is a feature in React that allows you to return multiple elements from a React component by allowing you to group a list of children without adding extra nodes to the DOM. To return multiple elements from a React component, you'll need to wrap the element in a root element.

# What is Context ?

### ANS : 🡺 React's context allows you to share information to any component, by storing it in a central place and allowing access to any component that requests it (usually you are only able to pass data from parent to child via props).

# How can a browser read JSX file ?

### ANS : 🡺 JSX files cannot be read directly by browsers. It can only read objects that JavaScript provides. Now, a JSX file needs to be converted using JSX transformers into a JavaScript object before it can be loaded into the browser and used in the pipeline.

# What are the major issues of using MVC architecture in React ?

### ANS : 🡺 Major drawbacks of MVC in react js include manipulation of DOM which is very expensive and also at the cost of time and memory wastage. For implementing MVC, knowledge of multiple languages and technologies is required which requires enormous manpower having different expertise.

# What can be done when there is more than one line of

# expression?

### ANS : 🡺 Enclosing the multi-line JSX expression is the best option. Sometimes it becomes necessary to avoid multi-lines in order to perform the task reliably and for getting the expected results.

# List down some of the methods in a react-dom package ?

### ANS : 🡺 The react-dom package provides DOM-specific methods that can be used at the top level of your app and as an escape hatch to get outside the React model if you need to.

### These react-dom methods are also exported, but are considered legacy:

### render()

### hydrate()

### findDOMNode()

### unmountComponentAtNode()

# Name any five predefined prototypes used in React ?

### ANS : 🡺 PropTypes are simply a mechanism that ensures that the passed value is of the correct datatype. This makes sure that we don't receive an error at the very end of our app by the console which might not be easy to deal with.

# Can JSX element be attached to other JSX components ?

### ANS : 🡺 Capitalized types indicate that the JSX tag is referring to a React component. These tags get compiled into a direct reference to the named variable, so if you use the JSX <Foo /> expression, Foo must be in scope.