



Which of these is a valid string method with the correct syntax?

- `.length()`
- `slice(end, start)`
- `.Replace()`
- `.slice()`



String Methods in Javascript

- The length property returns the length of a string:

```
let text = "ABCDEFGHIJKLMNOPQRSTUVWXYZ";
```

```
let length = text.length;
```

- There are 3 methods for extracting a part of a string; `slice(start, end)`, `substring(start, end)`, `substr(start, length)`
- The `replace()` method replaces a specified value with another value in a string:

```
let text = "Please visit Microsoft!";
```

```
let newText = text.replace("Microsoft", "Facebook");
```



Which of these is the logical operator in Javascript for logical or?

- `||`
- `&|`
- `&&`
- `//`



Logical operators in Javascript

Operator	Description
&&	Logical and
	Logical or
!	Logical not



Which of these is not a data type in JavaScript?

- **Instance**
- Symbol
- Object
- Undefined



Data types in Javascript

- JavaScript has 8 Datatypes:
 - String
 - Number
 - BigInt
 - Boolean
 - Undefined
 - Null
 - Symbol
 - Object



What is a javascript function?

- A javascript function is a block of code designed to perform a particular task.
- It is a special keyword for creating a code block.
- It is an in-built command.
- It is a type of variable.



Functions in Javascript

- A JavaScript function is a block of code designed to perform a particular task.
- It is NOT a special keyword. `function anything(x,y) {}` is just the syntax.
- It also cannot be considered to be an in-built command.
- It definitely isn't a variable, as a function is similar to a sequence of specific code that will run in order.



Which of these is NOT a valid loop in Javascript?

- Switch
- for
- while
- do...while



Loops in Javascript

- JavaScript supports different kinds of loops:
 - **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
 - **switch** is NOT a loop, but a conditional used to specify many alternative blocks of code to be executed



Which of these is a valid disadvantage of using React.js?

- It has a very large file size.
- It is not an open source library.
- It is not kept up-to-date.
- It does not make use of virtual DOMs, which slows things down.



Disadvantages of React.js

1. The majority of the code is written in JSX, which means that HTML and CSS are part of the javascript code. This can be perplexing because most other frameworks like to keep HTML separate from the javascript code.
2. ReactJS has a huge file size.
3. It is an open source library, kept up-to-date, and makes use of virtual DOMs - these are advantages of React.js.



What can React.js do?

- **Build User Interfaces.**
- Non-conditional rendering.
- Client-side rendering.
- Usable with all languages.



What can React.js do?

1. ***Build User Interfaces:*** Build interactive and dynamic UIs by breaking them down into reusable components.
2. ***Updates with Virtual DOM:*** Uses virtual DOM to optimize updates by calculating the minimal changes needed, leading to faster UI rendering.
3. ***Component-Based Development:*** Promotes a component-based architecture, where you break down your user interface into small, reusable components.



Which of these is a valid feature of Node.js?

- It enables applications to respond to events such as incoming requests or data arriving from the database.
- It uses multiple languages on the client and server side.
- It is not freely available for anyone to use.
- It has a very long execution time.



Features of Node.js

1. ***Event-Driven Architecture***: Built on an event loop to define asynchronous. Enables applications to respond to events such as **incoming requests or data arriving from the database.**
2. ***Single Programming Language***: Uses Javascript on both the client and server side.
3. ***Open Source***: Freely available for anyone to use, modify and contribute to.



What cant Node.js do?

- Computing and number crunching tasks.
- Generate dynamic page content.
- Add, delete, modify data in the database.
- Collect form data.



What can Node.js do?

- Generate dynamic page content
- Can collect form data
- Create, open, read, write, delete, and close files on the server
- Add, delete, modify data in the database



Who created Node.js

- Facebook
- Twitter
- Google
- Microsoft



What is Node.js?

- A Javascript library created by Facebook
- A free open source server environment
- Is a tool for building UI components
- Runs on various platforms (Windows, Linux, Unix, Mac OS X, etc.)
- Uses JavaScript on the server





Which of these is NOT a valid HTTP method used in APIs

- **FETCH**
- GET
- POST
- DELETE



Components of APIs

1. **Endpoints:** Specific URLs that represent different resources or actions that the API provides.
2. **HTTP Methods:** Like GET, POST, PUT, DELETE, etc., determine the type of interaction with the API.
3. **Parameters:** Data that can be sent with API requests to customize actions or retrieve specific information.



What are API endpoints

- Specific URLs that represent different resources or action that the API provide.
- The final output source for the API.
- The device on which the API is used.
- The application which uses the API.



Components of APIs

1. **Endpoints:** Specific URLs that represent different resources or actions that the API provides.
2. **HTTP Methods:** Like GET, POST, PUT, DELETE, etc., determine the type of interaction with the API.
3. **Parameters:** Data that can be sent with API requests to customize actions or retrieve specific information.



Javascript's running order is...

- Top to bottom
- Bottom to top
- There is no order
- The order is relative



Javascript running order

When the browser encounters a block of JavaScript, it generally runs it in order, from top to bottom. This means that you need to be careful what order you put things in.

If you put the wrong things in the wrong positions, javascript will not care about the importance of the function/value/keyword you are using and will run the code top to bottom which can significantly affect the output. It IS not relative. Javascript is NOT smart.



Which of these is NOT a relationship under the DOM structure?

- **Sister**
- Parent-Child
- Siblings
- Traversal



DOM Structures

The ***Document Object Model (DOM)*** is a programming interface for web documents.

- ***Relationships:***

- ***Parent-Child:*** Elements have parent and child relationships.
- ***Siblings:*** Elements at the same level are siblings.
- ***Traversal:*** Methods like `parentNode`, `childNodes`, etc., navigate the tree.



What does DOM refer to?

- Document Object Model
- Document Obfuscation Model
- Document Object Moderation
- Document Output Model



DOM Structures

The **Document Object Model (DOM)** is a programming interface for web documents.

- **Relationships:**

- *Parent-Child*: Elements have parent and child relationships.
- *Siblings*: Elements at the same level are siblings.
- *Traversal*: Methods like `parentNode`, `childNodes`, etc., navigate the tree.



Break Time!

[Back to Agenda Page](#)

