FE-Interview Questions

# Commonly Asked

* **Tree Shaking:**
  + Process used in modern build tools like webpack to eliminate unused codes from final bundle.
  + Reduces size of js files that the browser needs to execute hence improves **performance**.
* **How to ensure web application is accessible**
* Follow WCAG (Web content accessibility guidelines) guidelines
* Use semantic HTML for structure and aria roles (ARIA roles provide semantic meaning to content, allowing screen readers and other tools to present and support interaction with an object in a way that is consistent with user expectations of that type of object. ARIA roles can be used to describe elements that don't natively exist in HTML or exist but don't yet have full browser support.)
* Ensure keyboard navigation
* Provide alt text for image
* **Event Delegation**
* Method in which instead of adding event listeners to each child add listener to parent
* Leverages event bubbling to catch events from child elements.
* Reduced memory usage, dynamically handling events from elements added after the initial page load
* **SEO Challenges while using in single page application**
* Content is dynamically loaded, making it hard for search engine crawlers to index.
* Using history api to update URL for different views.
* Using SSR
* **CORS**
* Cross-Origin Resource Sharing (CORS) is a World Wide Web Consortium (W3C) standard that allows web applications to access resources from a different domain than the one that served the web page
* **Difference between. then () and async**
* . then () is used with promises for asynchronous operation, chaining multiple calls for sequential execution.
* **async** makes asynchronous calls looks synchronous making it readable and improves error handling
* **Closure in JS**
* Feature where inner function has accessibility to the outer function variables.
* **Flexbox VS Grid**

|  |  |
| --- | --- |
| **Flexbox** | **Grid** |
| 1-D layout method ideal for arranging items in single row or column offering control over alignment and spacing. | 2-D layout perfect for complex layouts. aligning contents with rows and columns. |
| Used for simple linear layout | Complex multi-dimensional layout |

* **Security in frontend**
* Implement content security policy (added layer of security that helps to detect and mitigate certain types of attacks, including Cross-Site Scripting ([XSS](https://developer.mozilla.org/en-US/docs/Glossary/Cross-site_scripting)) and data injection attacks.) can be implemented by using <meta>. Ex:

<meta

http-equiv="Content-Security-Policy"

content="default-src 'self'; img-src https://\*; child-src 'none';" />

* Use https for secure communication
* Store sensitivity data securely
* Keep dependencies UpToDate to avoid treats
* **Server-side rendering vs client-side rendering**

|  |  |
| --- | --- |
| **SSR** | **CSR** |
| Generates HTML on the server-side and send it to the client improving SEO and initial load | Renders pages directly in browsers using js results in faster subsequent page load and a smoother user experience |
| Use for static sites or SEO is priority | Use for dynamic app-like experience |

* **Object.freeze and const**
* Both are different concepts.
* Const applies to binding variables. It creates immutable binding.
* Object. freeze works on object values. It makes objects immutable i.e.; changing its property is not possible.
* **Importance of “Use strict”**
* Literal expression which enforces a stricter parsing and error handling in js code files or functions during runtime.
* Makes code easy to manage
* **Temporal dead zone**

The period between entering the scope and being declared is the one when these keywords are not able to accessed.

* **Currying in JS**

Advanced technique of working with functions that can accepts multiple arguments. It will transform this function into a series of functions, where every function will accept one argument.

* **ES6 Features**
* Let and const keywords (added difference between var, const and let)
* Block scoped literals
* Whereas, Var is Globally scoped or block scoped.
* Var can be updated and redeclared within its scope but let cannot be redeclared but updated within its scope.
* Var can be hoisted and initialized as undefined. But let and const cannot be.
* Arrow functions
* Multiline string
* Destructuring assignment
* Enhanced object literals
* Promises

# Array methods and Data Structures

## Array Methods

## Data Structures