

JavaScript Frameworks

As of today, the features and functionalities of Javascript can be extended to various frameworks which can exemplify the beauty and astonishing side of Javascript. The well known framework of Javascript are Angularjs, Reactjs and Vue.js.

- **AngularJS**

AngularJS is known to be a Model-View-Anything framework. It can be associated in some businesses and enterprises. It offers features categorized as call to action such as code manufacturing, application cleaning, and binding of statistics.



- **ReactJS**

React is applicable to the concept of web page programs and mobile application on how to develop it. Its objectives commonly to offer pace, simplicity, and scalability. As a person interface library, React is regularly used alongside different libraries consisting of Redux.

- **Vue.js**

Vue.js is an open source framework of Javascript for enabling the development of UI. Integration into initiatives that use different JavaScript libraries is made clean with Vue because it's miles designed to be incrementally adoptable. Vue can also feature as a web utility framework capable of powering advanced unmarried-web page applications.

Javascript Other Technologies

- **Core Java Language and API Script**

ECMA Script was the core language of Java Script provided by the committee ECMA TC39.

ECMA Script Scope

- Syntax of keywords, literals, rules in parsing, control flow, etc.)
- Handling error mechanisms
- Data types
- Global object
 - A prototype-based inheritance mechanism of:
 - Objects and functions (Prototype, JSON, etc.)

- **DOM API**

[WebIDL specification](#) provides detailed description about the specification of the integration of DOM technologies and ECMA Script.

Basis of Document Object Model (DOM)

DOM is an interface responsible for programming objects, datas, etc., in HTML and XML. It is cross-platform and offers language independency as well. The DOM tree may be addressed by certain methods. The standard established by W3c and WHATWG are used in many users today to enable the functionalities of DOM in relation with JavaScript.

- DOM Core would consists of tree model, Document Structure, the event architecture: Events, Node, Event Target, Document Fragment,

DOM Interfaces

- Window - it composes the document of DOM.
- Document - it points to the document which is specified by the DOM.
- ChildNode - Node objects containing methods which can have a parent node as well.
- Event - user generated or API generated events which is located in the document object model.
- Worker - an interface of the API which can send messages to the server and creates task running in the background.

- **HTML DOM**

HTML, Hypertext Markup Language, is also a concept in the DOM. Classname, property, elements are concepts that can be infer from HTML using the model of document object.

E.g Document, Window, Refer to [DOM documentation](#).

- **BOM API** (non standardized)

Basing it from the model of DOM, BOM also inherits some interfaces such as Window, Navigator, Screen, Location, History, etc.

Miscellaneous JavaScript Web APIs

- Geolocation - allows the integration of the application and the location of the user which enables the functionality of the application.
- IndexedDB - an API responsible for storing amounts of data, files, etc. in client-side.
- Local Storage - a mechanism of Web storage in which origin has a distinct storage area that are available for every page session duration, but still works even if the browser has been reopened or closed.
- Push Notifications - gives both the user and the web application an alert whether an important or not to the web application coming from the server.
- Service Workers - act as proxy server in collaboration
- Web Sockets- Using this API, an event driven message will prompt even if you didn't urge the server to reply, and you can receive messages as well.
- Web Workers- possible to configure and execute script in the background while executing the web application in a threading way.
- XMLHttpRequest (AJAX) - A full page refresh is not needed when retrieving data. In the process of main execution of the web application, it will just continue updating without having to disturb the user. It is mainly used in Ajax Programming.