Overview of Java Script

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Abstract: There are many programming languages in the market, JavaScript is the most popular programming or scripting language in web development, over ninety percent of the internet is powered by JavaScript and in the future it is likely to increase. JavaScript conforms to the standards of ECMAScript, ECMAScript is the standards for scripting language by ECMA international. JavaScript first appeared in 1995 by the name of LiveScript and after three months it is renamed as JavaScript. There are lots of Tools (IDEs) in the market which can be used to develop web applications using JavaScript.

Keywords: JIT, ECMA, ECMAScript, Multi-Paradigm, IDEs.

INTRODUCTION

JavaScript is a scripting or programming language, it is abbreviated as JS. It is JIT (Just-in-time) Compiled. JavaScript conforms the ES(ECMAScript) specifications. It is a high-level and user-friendly programming language used for the development of both back-end and front-end.

In other words we can say that JavaScript is used in both client-side and server-side scripting.

We design dynamic web pages and combine them to form a web application which runs on a server instead of the local users machine and these web applications can be accessed using any web browser like Google Chrome, Microsoft Edge, Apple Safari, Mozilla Firefox, Opera and others.

![Fig. 1: Popularity of JavaScript](image)

It is the most popular programming language in the market for both front-end and back-end development. JavaScript is a multi-paradigm scripting language like event-driven, functional and imperative.

In Event-Driven programming the flow of a program is controlled by the events like mouse clicks, key presses and others. Functional paradigm is also called a declarative programming paradigm in which function definitions are defined or the statements are declared. Imperative programming is a paradigm in which statements are used to change the state of the program.

ECMA Script

ECMA International is an organization for Information and Communication systems’ standards. ECMA stands for European Computer Manufacturers Association established in 1961.

![Fig.2: ECMA Script Versions](image)
ECMA Script is standardized scripting-language specification by ECMA International. It mainly focuses on Client-side scripting on the World Wide Web. ECMAScript is abbreviated as ES. First edition of ECMAScript was released in 1997 and its latest edition was released in 2019 which is the 10th edition ECMAScript 2019(ES2019).

**HISTORY**

JS (JavaScript) was developed by Brendan Eich in 1995 and named as LiveScript and later on it was renamed as JavaScript after three months of release. Netscape Navigator was the first browser which executed JavaScript code to display dynamic web pages in the browser, before JavaScript World Wide Web Consists of static web pages. JavaScript made the web page to interact with users and the World Wide Web easy to use for non-technical people. In 1996 Microsoft Reverse-Engineered Netscape Navigator interpreter and created its own interpreter named as JScript and released it with Internet Explorer.

**SCOPE OF JAVASCRIPT**

Nowadays in the market we have lots of different languages capable of accomplishing a wide range of tasks. JavaScript is the most popular programming language for both front-end and back-end in web development, in others words, JavaScript is the leading programming language used for client-side and server-side scripting, the JavaScript frameworks like Angular, Node, jQuery, Ember.js, Metro.js, ReactJS, and VueJS etc makes it even more easier and faster to develop web based applications. JavaScript is the present and the future of the rapidly growing internet. Over 90 percent of the internet is powered by JavaScript and likely to increase in the future.

**TOOLS**

JavaScript tools are the softwares which we can write our code, these softwares are also called IDEs (Integrated Development Environment). Different tools or IDEs provide different features.

**Tools:**
WebStorm
Visual Studio
Visual StudioCode
Sublime Text,
Komodo IDE
NetBeans
IntelliJ Idea
and many more

These are the few examples of IDE which can be used to develop an application in JavaScript. But there are lots of tools or IDEs in the market

**HOW TO LEARN**

There are many online platforms from where we can learn JavaScript from beginners level to advanced level, and some of these platforms also provide certification.

**Platforms:**
MDN Web Docs
Udemy
Edx
Youtube
w3school
Tutorialspoint
Geeksforgeeks
and many more.

These platforms consist of video tutorials and articles and some also provide an online editor for hands-on practice.
CONCLUSION
JavaScript is the most popular scripting or programming language, used to develop web based applications which runs on the web browsers like Google Chrome, Microsoft Edge, Apple Safari and others. Over ninety percent of the internet is powered by JavaScript and in the future it is likely to increase.

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