

1.JavaScript History?

Brendan Eich created **JavaScript at Netscape Communications** in 1995. Netscape and Eich designed JavaScript as a **scripting language** for use with the company's flagship **web browser, Netscape Navigator**. Initially known as **LiveScript**, Netscape changed the name to JavaScript so they could position it as a companion for the Java language, a product of their partner, **Sun Microsystem**. Apart from some superficial syntactic similarities, though, JavaScript is in no way related to the Java Programming language.

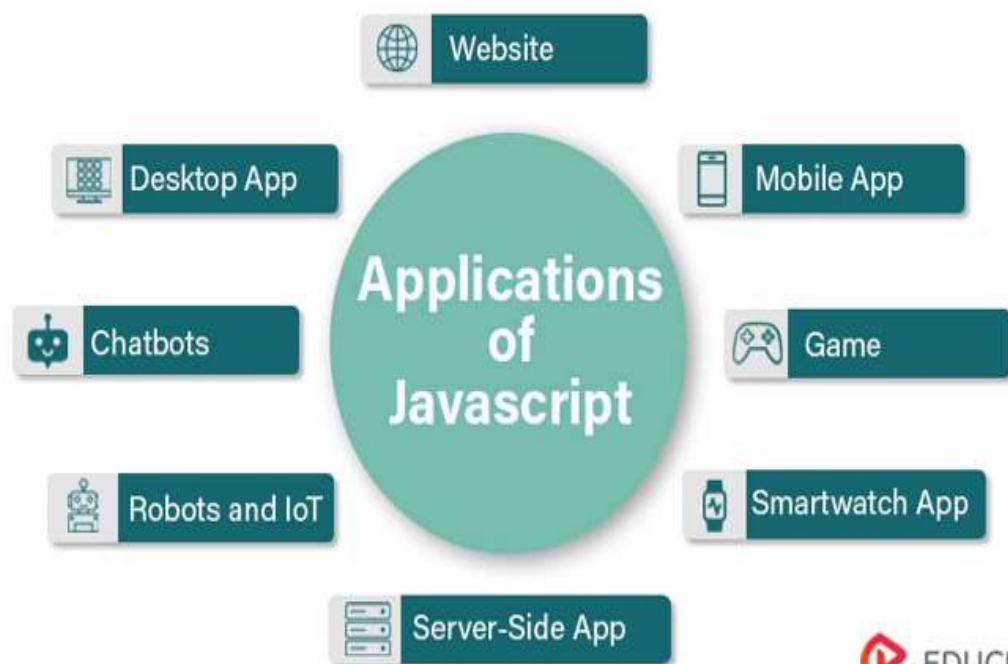


Brendan Eich

After its release, more and more browsers started adding JavaScript support. Still, for much of its history, JavaScript was not regarded as a serious programming language. Its earliest releases suffered from **notable performance** and **security issues**, but developers had no alternatives. If they wanted to run programs in the browser, they had to use JavaScript.



In 2008, The creation of **Google's open-source Chrome v8**, a high-performance JavaScript engine, provided a crucial turning point for JavaScript. The **subsequent proliferation** of fast JavaScript engines made it possible for developers to build **sophisticated browser-based applications** with performance that competed with **desktop** and **mobile applications**.



Soon after, **Ryan Dahl** released an **open-source**, cross-platform environment called **Node.js**. It provided a way to run JavaScript code from outside a browser. It freed JavaScript from the browser's confines and led directly to JavaScript's current popularity. Today, you can use JavaScript to write all kinds of applications, including **browser**, **server**, **mobile**, and **desktop** applications most major online companies today, including **Facebook**, **Twitter**, **Netflix**, and **Google**, all use JavaScript in their products.



Ryan Dahl

2. How is JavaScript named as JavaScript?

The story of JavaScript's name, when the web was just starting to take shape. In the **mid-1990s**, **Netscape** a company that was a pioneer in the **development of web browsers, more interactive and user-friendly**.

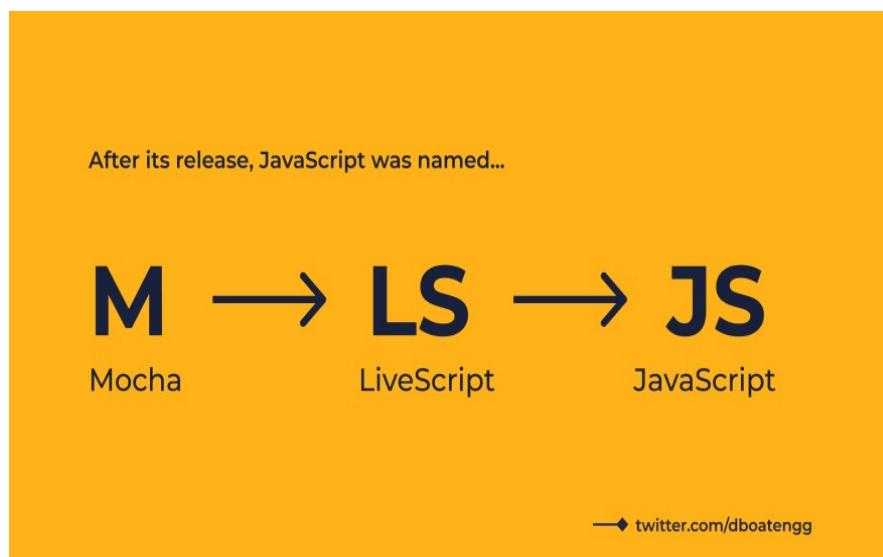
At that time, the most popular programming language for the web was called **Java**. Java was developed by **Sun Microsystems** and was known for its ability to run on a variety of platforms and devices, making it a great choice for building web applications.



Netscape decided to create a new programming language that would be similar to java, but would be specifically designed for use with web browsers. they wanted to make it easier for web developers to create interactive and dynamic websites, and they wanted to do it in a way that would be compatible with Java.

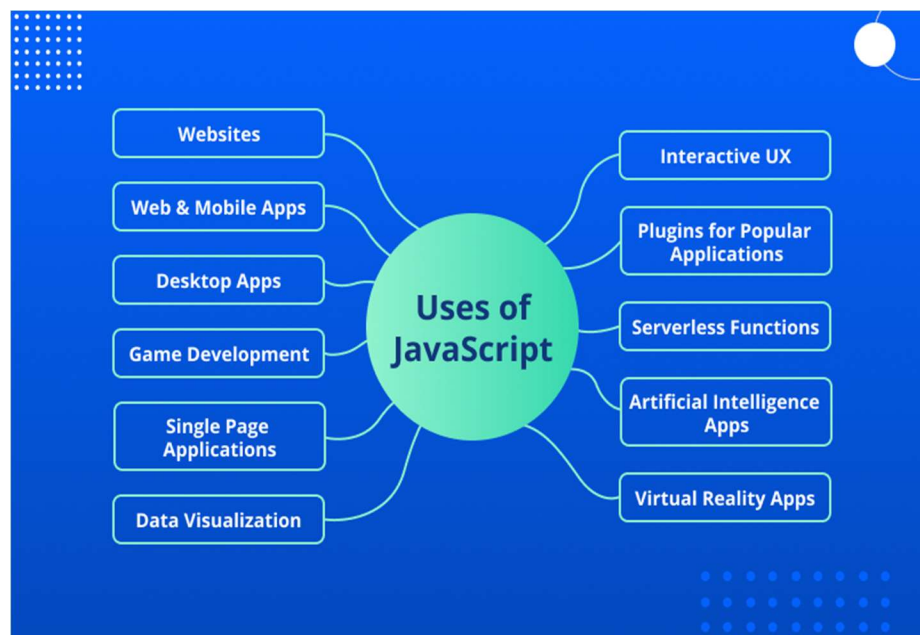
Finally, Netscape teamed up with Sun Microsystems and together they developed the new language, which they initially called **LiveScript**. The name LiveScript was chosen because it was intended to be a more “live” and interactive version of Java.

When Netscape released the first version of its browser with support for LiveScript, they decided to change the name of the language to **JavaScript**.



3. Why JavaScript?

Js makes responsive design easier. JavaScript has become integral to the internet experience as developers build increased interaction and complexity into their applications. Search engines, e-commerce, content management systems, responsive design, social media, and phone apps would not be possible without it.



4. What is the relation with Java?

- Java is an OOP programming language.
- JavaScript is an OOP scripting language.
- Java creates applications that run in a virtual machine or browser.
- JavaScript code is run on a browser only.
- Java code needs to be compiler.
- JavaScript code are all in text.

5. Is JavaScript only used for the Front-end?

JavaScript is used widely in frontend development, but in recent years is used for backend development too. Node.js makes that possible by providing backend functionality.

6. why and what is JavaScript?

JavaScript is a Scripting or programming language that allows you to implement complex features on web pages.

It is used primarily by web browsers to create a dynamic and interactive experience for the user. Most of the function and applications that make the internet indispensable to modern life are coded in some form of JavaScript.

7. Advantages and Disadvantages of JavaScript?

Advantages of JavaScript	Disadvantages of JavaScript
Client-Side Security	Security Risks
Less Overhead	Interoperable
Inherently Fast	Increased Server Load (at times)
Easy to Implement	Lack of Browser Support
Popular	Debugging Tools aren't Advanced
Reduces Server Load	Single Inheritance
Versatile	Slow Rendering
Rich Interfaces	

8. Synchronous v/s Asynchronous?

Asynchronous is a non-blocking architecture, so the execution of one task isn't dependent on another. Tasks can run simultaneously.

Example:

```
console.log("Hi");  
setTimeout(() => {  
    console.log("Geek");  
}, 2000);  
console.log("End");
```

output:

```
Hi  
End  
Geek
```

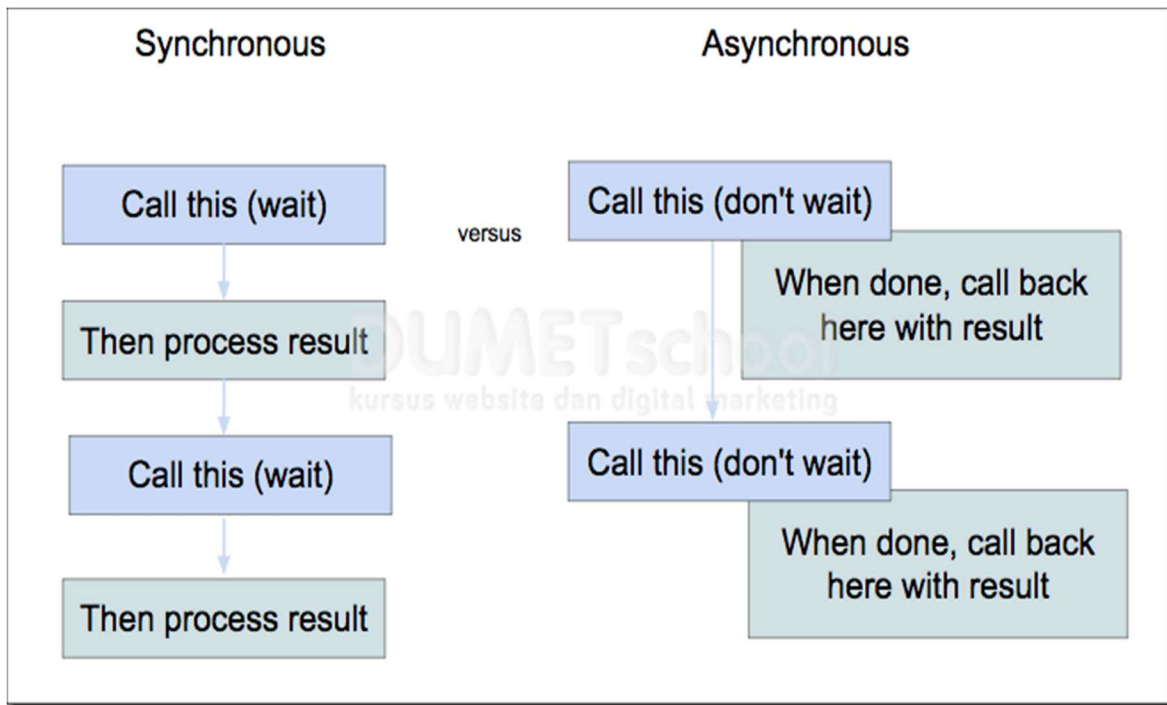
Synchronous is a blocking architecture, so the execution of each operation depends on completing the one before it. Each task requires an answer before moving on to the next iteration.

Example:

```
console.log("Hi");  
console.log("Geek");  
console.log("How are you?");
```

output:

```
Hi  
Geek  
How are you?
```

9. Different between Scripting & programming language?

Programming Language	Scripting Language
A programming language is an organized way of communicating with a computer.	A scripting language is a programming language that supports scripts.
Traditional programming is based on low level languages.	Scripting prefers high level languages.
The traditional programming languages such as C, C++, and Java are compiled.	Perl, Python, JavaScript, and other languages used for scripting are interpreted and do not require the compilation step.
General programming leads to closed software applications.	Scripting promotes open projects and is used for web applications.
More code needs to be written.	Less coding is required in scripting.