



JAVASCRIPT

19CSE100 - PROBLEM SOLVING AND ALGORITHMIC THINKING
PROGRAMMING LANGUAGE SURVEY ASSIGNMENT

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JAVASCRIPT was founded by *BRENDAN EICH* IN 1995, DECEMBER 4 , It was developed for Netscape 2, and became the ECMA-262 standard in 1997. After Netscape handed JavaScript over to ECMA, the Mozilla foundation continued to develop JavaScript for the Firefox browser. Mozilla's latest version was 1.8



BRENDAN EICH

*** who owns java script → ORACLE COORPORATION**

"JavaScript" is a trademark of Oracle Corporation in the United States.

*** Old name of java script → MOCHA**

In September 1995, a Netscape programmer named Brendan Eich developed a new scripting language in just 10 days. It was originally named Mocha, but quickly became known as Live Script and, later, JavaScript.

*** JavaScript is a scripting language that enables you to create dynamically updating content, control multimedia, animate images, and pretty much everything else.**

***JavaScript can change HTML content.**

JAVASCRIPT APPLICATION

- **Web Development** → JavaScript is a scripting language used to develop web pages.
- **Web Applications** → Various JavaScript frameworks are used for developing and building robust web applications. Presentations
- **Server Applications**
- **Web Servers**
- **Games**
- **Art**
- **Smartwatch Apps**
- **Mobile Apps**
- **Flying Robot**

What is JavaScript, and why is it important?

JavaScript is a programming language used primarily by Web browsers to create a dynamic and interactive experience for the user. Most of the functions and applications that make the Internet indispensable to modern life are coded in some form of JavaScript. The earliest incarnations of JavaScript were developed in the late 1990s for the Netscape Navigator Web browser. At the time, Web pages were static, offering little user interaction beyond clicking links and loading new pages. For the first time, JavaScript enabled animation, adaptive content and form validation on the page. For many years, JavaScript only functioned on a limited number of browsers. Microsoft's Internet Explorer, the largest browser base, did not support JavaScript until much later. Instead, Microsoft created its own proprietary client-side script called JScript. In the early days of Web development, programmers who wished to create dynamic websites were often forced to choose one browser family over the other. This was less than ideal because it made the Internet less universally accessible. JavaScript did not become standardized and widely adopted until 1999. Even after standardization, browser compatibility remained an issue for over a decade.

Some of the dynamic website enhancements performed by JavaScript are;

- Autocomplete.
- Loading new content or data onto the page without reloading the page.
- Rollover effects and dropdown menus.
- Animating page elements such as fading, resizing or relocating.
- Playing audio and video .
- Validating input from Web forms .
- Repairing browser compatibility issues.

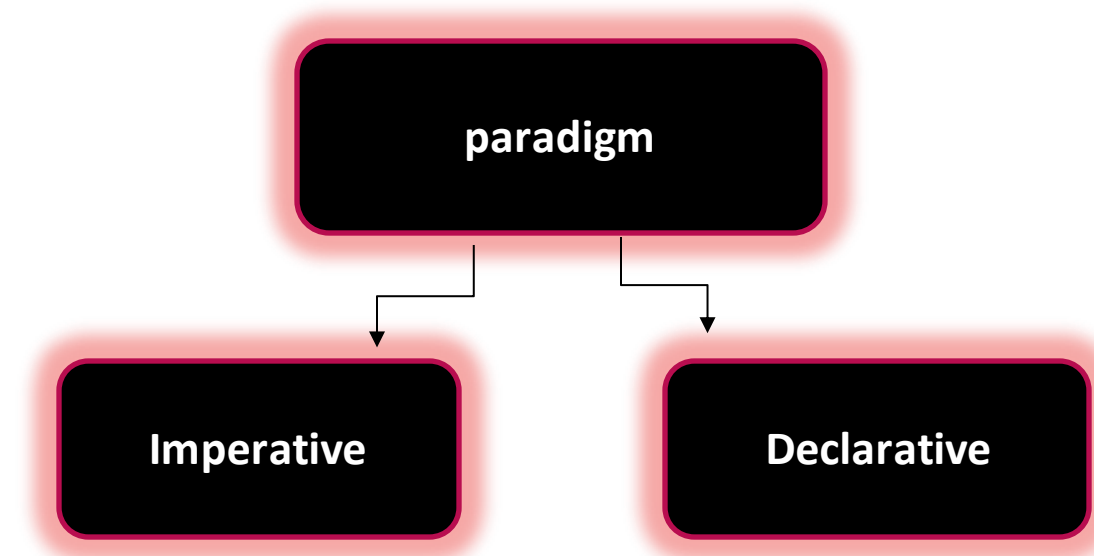


The future of JavaScript;

While JavaScript is not the only client-side scripting language on the Internet, it was one of the first and it is still the most widely used. Many developers believe that JavaScript is inefficient and finicky, so they have made many improvements to the language over the years. Enterprising programmers have created JavaScript libraries - more concise languages constructed from the building blocks of JavaScript that are less complex and can be targeted for specific applications. For instance, J Query is a JavaScript library that simplifies and expands many of JavaScript's animation and interactive functions, while Backbone.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, ecommerce, content management systems, responsive design, social media and phone apps would not be possible without it.

JAVASCRIPT PARADIGMS

JavaScript is a multi-paradigm scripting language, which means that it is very dynamic in nature and supports various types of programming styles, such as object-oriented, imperative, and functional programming.



*Imperative, which includes Procedural Programming and object oriented programming (OOP).

*Declarative, which includes Functional Programming.

JAVASCRIPT OUTPUTS

JavaScript output can display in different possibilities

- Writing into an HTML element, using innerHTML.
- Writing into the HTML output using document.write().
- Writing into an alert box, using alert().
- Writing into the browser console, using console.log()

JAVASCRIPT STATEMENTS

JavaScript statements are composed of Values, Operators, Expressions, Keywords, and Comments.

```
let a, b, c; // Declare 3 variables  
a = 5; // Assign the value 5 to a  
b = 6; // Assign the value 6 to b  
c = a + b; // Assign the sum of a and b to c
```

KEYWORD	DESCRIPTION
Var	Declares a variable
Let	Declares a block variable
const	Declares a block constant

JAVASCRIPT SYNTAX

// How to create variables:

var x; let y;

// How to use variables:

x = 5;

y = 6;

let z = x + y;

JAVASCRIPT VALUES

The JavaScript syntax defines two types of values:

- **Fixed values** → Fixed values are called Literals.
- **Variable values** → Variable values are called Variables.

JAVASCRIPT LITERALS

The two most important syntax rules for fixed values are,

- 1. Numbers are written with or without decimals.**

10.50

1001

- 2. Strings are text, written within double or single quotes.**

"John Doe"

'John Doe'

PROGRAMME TO PRINT HELLO WORLD

There are three ways to print 'HELLO WORLD'

- `console.log()`
- `alert()`
- `document.write()`

1.using `console.log()`
`console.log('HELLO WORLD');`

2.using `alert()`
`alert('HELLO WORLD');`

3 using `document.write()`
`document.write('HELLO WORLD');`

THANK YOU