JavaScript

Module 1

Chapter 1-Getting Started with JavaScript

What is **JavaScript**

- **The world's most popular programming language.**

- **The programming language of the Web.**

- **Object-based client-side scripting language.**

- **Lightweight and cross-platform.**

Why to study JavaScript

JavaScript is one of the fundamental building blocks of web development.
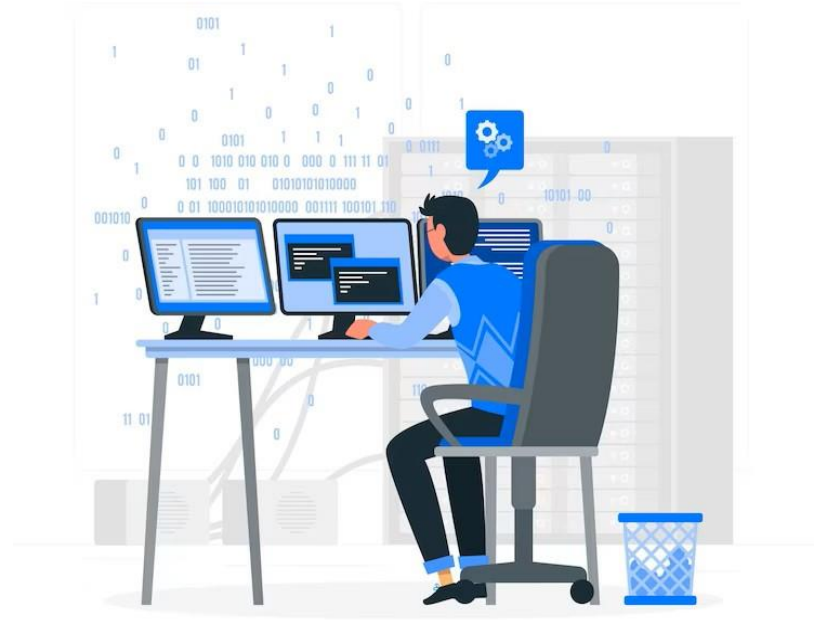
The 3 languages all web developers must learn:

1. **HTML** to define the content of web pages

2. **CSS** to specify the layout of web pages

3. **JavaScript** to program the behavior of web pages

What **JavaScript** *can do?*

Lets See some examples

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JavaScript *can change HTML Content*

```html
<!DOCTYPE html>
<html>
<body>
<p id="msg">Click this button to save.</p>


<button type="button"
onclick='document.getElementById("msg").innerHTML
= "Saved Successfully"'>Save</button>


</body>
</html>
```

Output before button click

Click this button to save.

Save

Output after button click

Saved Successfully.

Save

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JavaScript *can change* HTML Attribute Values

```
<!DOCTYPE html>

<html>

<body>

<button
onclick="document.getElementById('Image').src='l
ogo.gif'">View Logo</button>

<img id="Image" src="Plate.gif"
style="width:100px">

<button
onclick="document.getElementById('Image').src='p
rofilepicture.gif'">View Profile Pic</button>

</body>

</html>
```
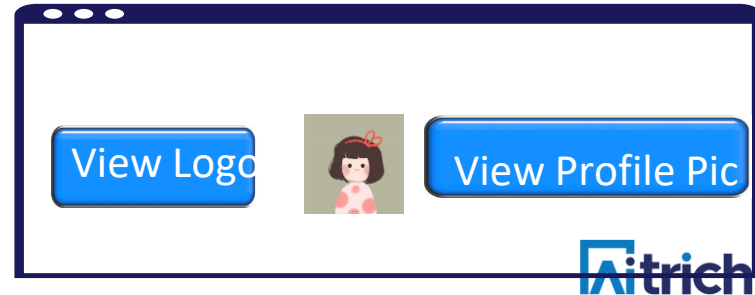
Output on clicking "Show Cup"button

Output on clicking "Show Plate"button

JavaScript *can change HTML Styles*

```
<!DOCTYPE html>
<html>
<body>


<p id="msg">Make me big</p>


<button type="button"
onclick="document.getElementById('msg').st
yle.fontSize='25px'">Click Me!</button>


</body>
</html>
```

Output before button click

Make me big

Click Me!

Output after button click

Make me big

Click Me!

JavaScript *can hide* HTML Elements

```html
<!DOCTYPE html>
<html>
<body>
<p id="msg">Hide Me</p>


<button type="button"
onclick="document.getElementById('msg')
.style.display='none'">Click Me!</button>


</body>
</html>
```

Output before button click

Hide Me

Click Me!

Output after button click

Click Me!

JavaScript *can show* HTML Elements

```
<!DOCTYPE html>
<html>
<body>
<p id="msg" style="display:none">Happy Birthday!</p>

<button type="button" onclick="document.getElementById('msg').style.display='block'">Click Me!</button>

</body>
</html>
```

Output before button click

Click Me!

Output after button click

Happy Birthday!

Click Me!

Setting up a development environment

<u>Installing Browser</u>:

Mostly, you will have a browser already installed on your PC. Else, download and install the following browser as per your preference.

- Microsoft Edge
- Google Chrome
- Mozilla FireFox
- Safari (on Mac OS)
- Opera

Setting up a development environment

<u>IDEs for JavaScript Application Development</u>

You can write JavaScript code using a simple editor like Notepad. However, you can install any open-sourced or licensed IDE (Integrated Development Environment) to get the advantage of IntelliSense support for JavaScript and syntax error/warning highlighter for rapid development.

- Visual Studio Code (Free, cross-platform)
- Eclipse (Free, cross-platform)
- Atom (Free, cross-platform)
- Notepad++ (Free, Windows)
- Code Lobster (Free, cross-platform)
- WebStorm (Paid, cross-platform)

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Writing your first JavaScript program

```
<!DOCTYPE html>
<html>
<body>

<h2>Show Date and Time</h2>

<button type="button"
onclick="document.getElementById('msg').innerHTML
= Date()">Display Date and Time</button>

<p id="msg"></p>

</body>
</html>
```

Output before button click

Show Date and Time

Display Date and Time

Output after button click

Show Date and Time

Display Date and Time

Sat Dec 09 2023 10:20:45 GMT+0530 (India Standard Time)

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Thank You