

# JS- INTRODUCTION

ANECO ACADEMY

# Agenda

- Introduction to JavaScript
- Why JavaScript?
- How to Add JavaScript?
- Difference between – HTML/CSS/JS
- Understanding DOM
- DOM Methods
- Events & Functions
- Variables & DataTypes
- Operators
- Conditional Statements
- Loops
- Arrayys

# What is JavaScript?

- JavaScript is a client side scripting language (interpreted programming language)
- JavaScript make web pages interactive
- Open source and cross-platform
- Case sensitive
- Most commonly used as a part of web pages
- JS was created to make web pages more Dynamic (Change content on a page directly from inside the browser)
- Supported by all major browsers and enabled by default

# Why JavaScript?

- JavaScript adds behavior to web pages
- Show or hide more information with the click of a button
- Change the color of a button when the mouse hovers over it
- Less server interaction
- Immediate feedback to the visitors



**Less Server  
Interaction**



**Immediate  
feedback to the  
visitors**



**Increased  
Interactivity**



**Richer Interfaces**

# HTML, CSS & JavaScript

## What's the Difference?



# HTML

**Hypertext Markup Language**

### Create the structure

- Controls the layout of the content
- Provides structure for the web page design
- The fundamental building block of any web page



# CSS

**Cascading Style Sheet**

### Stylize the website

- Applies style to the web page elements
- Targets various screen sizes to make web pages responsive
- The fundamental building block of any web page

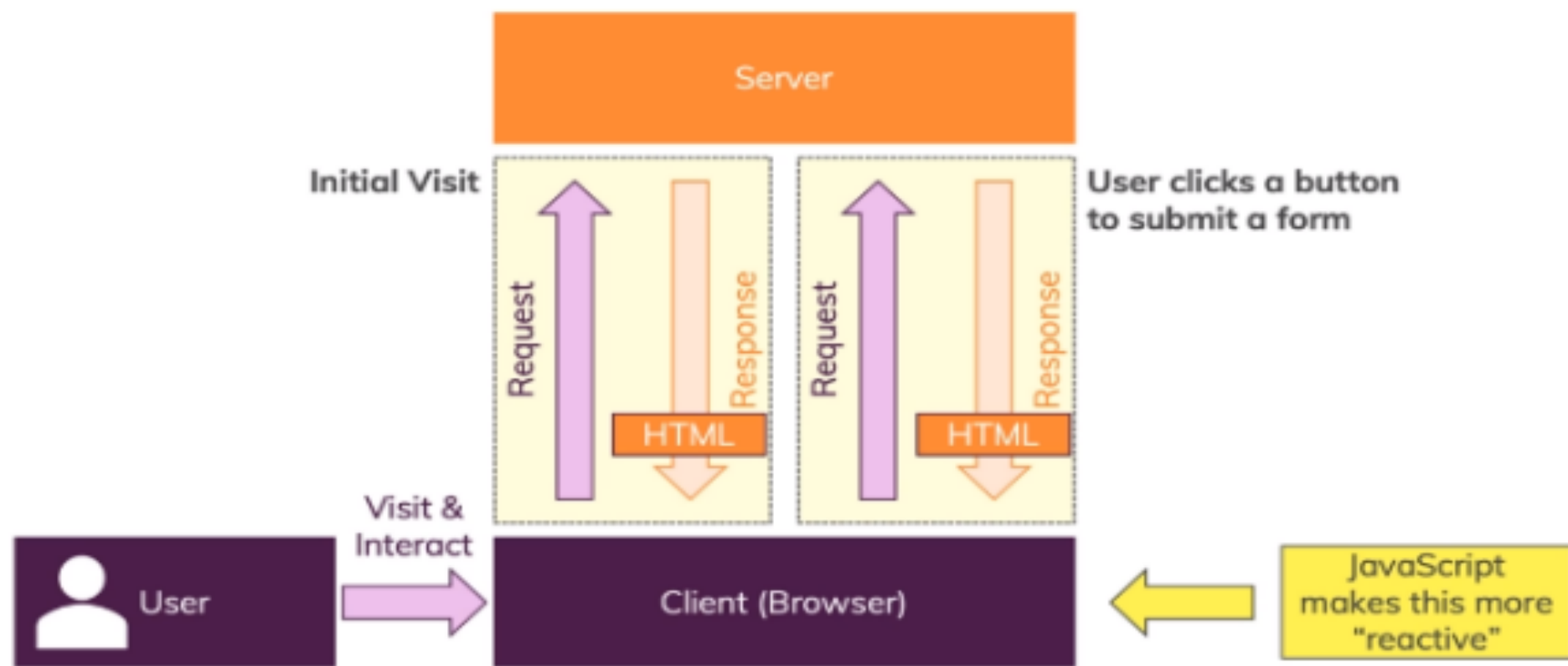


# Javascript

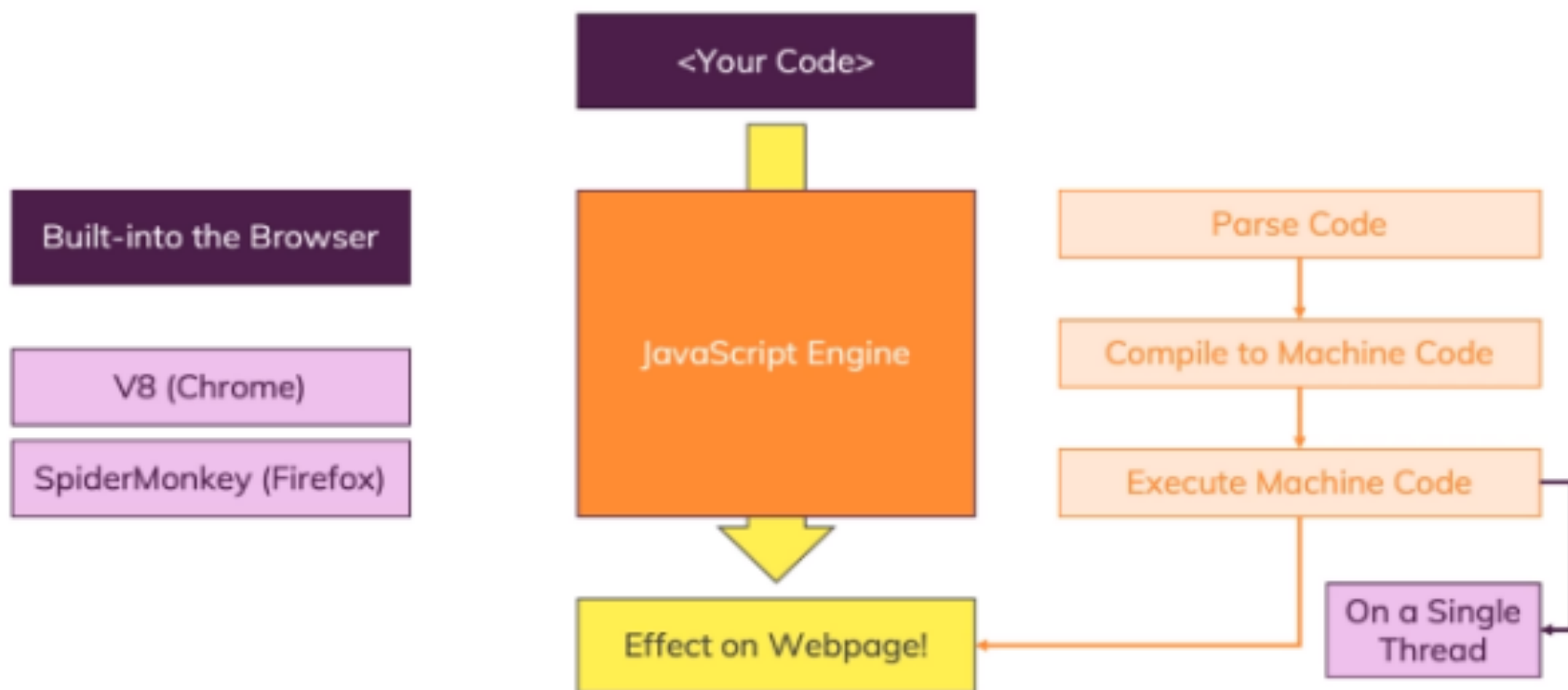
### Increase interactivity

- Adds interactivity to a web page
- Handles complex functions and features
- Programmatic code which enhances functionality

## How do Web Pages Work?



## How is JavaScript Executing?



## JS in Browser side vs Server side

### Browser-side

JavaScript was invented to create more dynamic websites by executing in the browser!

JavaScript can manipulate the HTML code, CSS, send background Http requests & much more

JavaScript CAN'T access the local filesystem, interact with the operating system etc

### "Other" (e.g. Server-side)

Google's JavaScript Engine (V8) was extracted to run JavaScript anywhere (called "Node.js")

Separate Module!

Node.js can be executed on any machine and is therefore often used to build web backends (server-side JavaScript)

Node.js CAN access the local filesystem, interact with the operating system etc. It CAN'T manipulate HTML or CSS



# How to Add JavaScript

- ❖ **Internal JS** - Internal JavaScript code is code that's placed anywhere within the web page between the HTML tags

```
<script>  
alert("Happy Learning");  
</script>
```

- ❖ **External JS**

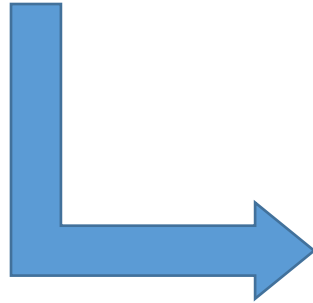
- JavaScript code placed in a file separate from the HTML code is called external Javascript.
- External JavaScript code is written and used in the same way as internal Javascript.
- The file should have the ".js" extension.

```
<script src="myScript.js"></script>
```

# Interact with HTML using JS

- Using Document Object

```
document.write("Hello World!");  
document.write("<h1>Hello World!</h1><p>Have a nice day!</p>");  
document.write(Date());  
document.write("Hello World! <br>");  
document.write("Have a nice day!");
```



Hello World!

**Hello World!**

Have a nice day!

Thu Dec 16 2021 08:47:01 GMT+0530 (India Standard Time)Hello World!  
Have a nice day!