

# FRONTEND TRAINING

# PREREQUISITES



**BASIC UNDERSTANDING  
OF HTML, CSS &  
JAVASCRIPT**



**INTEREST TO LEARN**

# TRAINING AGENDA

- ☐ HTML
- ☐ CSS
- ☐ JavaScript
- ☐ React
- ☐ Angular

# HTML – AN OVERVIEW

Hypertext Markup Language (HTML) is the standard markup language for documents designed to be displayed in a web browser.

Assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript.

HTML elements are delineated by tags, written using angle brackets.

# STRUCTURE OF WEB PAGE

Mark up sections of content based on their *functionality*

To implement semantic mark up, HTML provides dedicated tags that you can use to represent such sections -

- `<header>`
- `<nav>`
- `<main>` with various content subsections represented by `<article>`, `<section>` and `<div>` elements
- `<aside>`
- `<footer>`

# HTML FORM ELEMENTS

The **HTML <input>** element is used to create interactive controls for web-based forms in order to accept data from the user.

A wide variety of types of input data and control widgets are available, depending on the device and user agent.

button	checkbox	color	date
email	file	hidden	month
number	password	radio	range
reset	search	submit	tel
text	time	url	week

# CSS – AN OVERVIEW

Stylesheet language used to describe the presentation of a document written in HTML

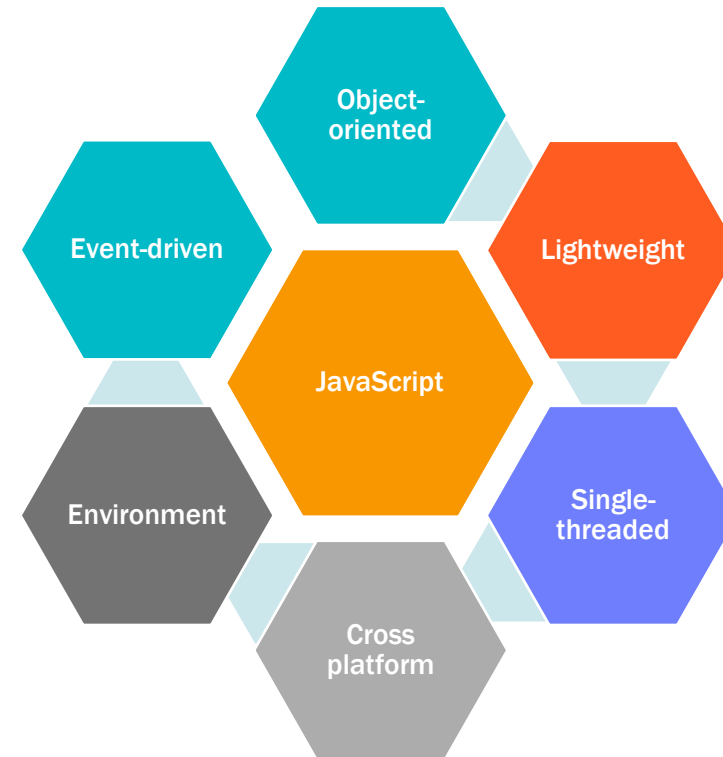
CSS can be included with HTML page as internal, external, and inline.

## CSS3 properties-

- Rounded border
- Box shadow
- Text shadow
- Gradient
- Transition
- Animation

# JAVASCRIPT

JavaScript is a cross-platform, object-oriented scripting language used to make webpages interactive. e.g., having complex animations, clickable buttons, popup menus etc.





# JAVASCRIPT FUNCTIONS

## Function Declaration and Expression

- Anonymous function

## Immediately-Invoked Function Expressions (IIFEs)

- Called itself

## Callbacks

- Sending functions as parameter

## Closures

- Process of binding outer scope variables with inner function

# SCOPE IN JAVASCRIPT

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Scope determines the visibility of variables and other resources in areas of your code.

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Scope also solves the naming problem when you have variables with the same name but in different scopes.

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Variables defined inside a function are in local scope while variables defined outside of a function are in the global scope.

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Block statements like *if* and *switch* conditions or *for* and *while* loops, unlike functions, don't create a new scope.

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Scope and Context are both different features.

# JAVASCRIPT - PROTOTYPING

In JavaScript, objects have a special hidden property `[[ Prototype ]]`, that is either *null* or references another object. That object is called “a prototype”.

```
animal = { eats : true }
```

Prototype Object

Object

```
rabbit = {  
  jumps : true,  
  __proto__ : animal  
}
```

# JSON - JAVASCRIPT OBJECT NOTATION

## ECMA-404 The JSON Data Interchange Standard

- **JSON** is a lightweight data-interchange format.

## JSON is built on two structures:

- A collection of name/value pairs.
- An ordered list of values.

## The Object

- An *object* is an unordered set of name/value pairs. An object begins with { and ends with }. Each name is followed by colon (:) and the name/value pairs are separated by comma (,).

# ES2015+ FEATURES

ECMAScript 2015 is an ECMAScript standard that was ratified in June 2015. ES2015 is a significant update to the language.

## ECMAScript 2015 FEATURES

Arrow  
function

Destructuring

Spread &  
Rest

Template  
String

Class &  
Module

Optional and  
Named  
parameter

Block Scope

Map/Set

Other Helper  
methods