



JAVASCRIPT

SC 335 - Introduction to Web development

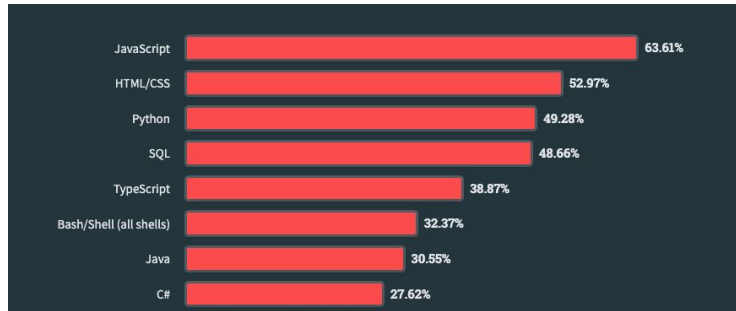
What is JAVASCRIPT ?

INTRO. | What is javascript?

Introduction

Basics

HTML DOM



Credits : Popular technologies survey 2023 (stack overflow)

\$72,000/year

Google facebook amazon

You Tube

X

INTRO. | JAVASCRIPT Developer

Introduction

Basics

HTML DOM



Front-end developer



Back-end developer

JAVASCRIPT - BASICS

BASICS | Variables

Basics

Variables

Data Types

Arrays

String Methods

Loops

Conditional

Functions

HTML DOM

1. `console.log()`

Object that writes a message to the browser's console,

2. `alert`

A method of the window object that displays a message box with a specified message and an OK button.

BASICS | Variables

Basics

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HTML DOM

1. var

*Declarations are globally scoped or function scoped.
It can be updated or re-declared.*

2. let

*Declarations are block scoped.
Can be updated but not redeclared*

3. const

It cannot be updated or redeclared

BASICS | Data Types

Basics

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HTML DOM

1. Undefined

A variable that has not been assigned a value.

2. Null

A variable that has been explicitly assigned the value null.

3. String

A sequence of characters enclosed in quotes.

4. Number

A numeric value.

5. Boolean

A logical value that can be either true or false.

BASICS | Arrays and Objects

Basics

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HTML DOM

Arrays

Syntax `const array_name = [item1, item2, ...];`

1. Add/Remove

***push** - Add element to the end*

***pop** - Remove element at the end*

***shift** - Add element to the start*

***unshift** - Remove element at the start*

2. Sort,Reverse

A numeric value.

Objects

Objects are variables too. But objects can contain many values.

Syntax `const object_name = {label1: value, label2, value, label3: function()};`

BASICS | String Methods

Basics

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HTML DOM

1. Case

toUpperCase - Change the case to upper

toLowerCase - Change the case to lower

2. Substring

slice(start,end) -

split(delimiter) -

3. Find and Replace

find(char) -

replace(searchValue,replaceValue) -

replaceAll(searchValue,replaceValue) -

BASICS | Loops

Basics

Variables

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String Methods

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HTML DOM

1. for

Regular for loop.

```
for (expression 1; expression 2;  
expression 3) {  
    // code block to be executed  
}
```

***for of:** It loops through the values of an iterable object..*

```
for (variable of iterable) {  
    // code block to be executed  
}
```

2. while

The while loop loops through a block of code as long as a specified condition is true.

```
while (condition) {  
    // code block to be executed  
}
```

BASICS | Conditional Statements

Basics

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HTML DOM

1. if/else

if...else statement is used to execute a statement if a specified condition is truthy. If the condition is falsy, another statement in the optional else clause will be executed

```
if (condition) {  
    // block of code to be  
    executed if the condition is  
    true  
} else {  
    // block of code to be  
    executed if the condition is  
    false  
}
```

2. switch/case

Perform different actions based on different conditions

```
switch(expression) {  
    case x:  
        // code block  
        break;  
    case y:  
        // code block  
        break;  
    default:  
        // code block  
}
```

BASICS | Functions

Basics

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HTML DOM

The function is a block of code designed to perform a particular task.

Syntax

```
function name(parameter1, parameter2, parameter3) {  
    // code to be executed  
}
```

HTML Document Object Model (DOM)

DOM | HTML DOM Tree

Basics

HTML DOM

Finding Elements

Changing Elements

Events

Event Listeners

API

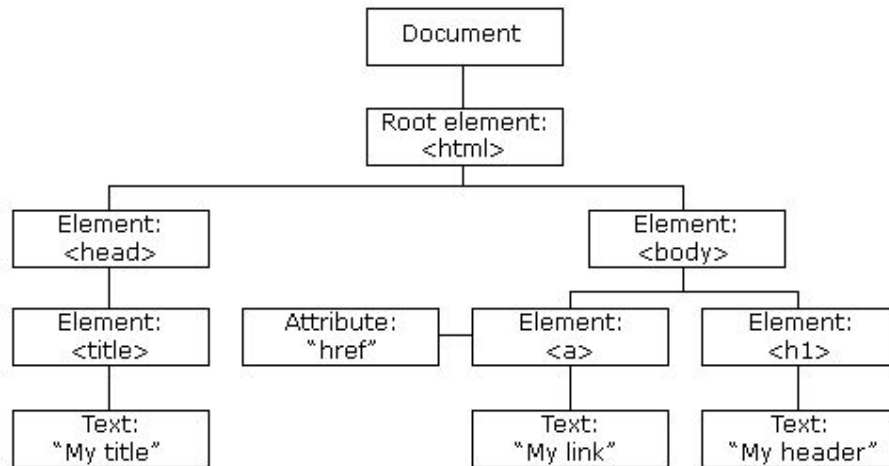


Image credits : W3schools.com

Use if to Manipulate **content**, **Style** and **Structure**

DOM | Finding Elements in DOM

Basics

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API

Methods used access HTML elements in an HTML DOM.

`getElementById()` *Access by ID*

`getElementsByName()` *Access by Tag name*

`getElementsByClassName()` *Access by Class name*

`querySelector()` *Access by CSS selectors*

DOM | Changing HTML Elements

Basics

HTML DOM

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API

The HTML DOM allows JavaScript to change the content of HTML elements using following methods.

innerHTML

The easiest way to modify the content of an HTML element

attribute

change the value of an HTML attribute

style.property

change the style of an HTML element

setAttribute(attribute, value)

DOM | Events

Basics

HTML DOM

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API

HTML DOM allows JavaScript to react to HTML events:

onmouseover

onload

onmouseout

onmousedown

DOM | Events Listeners

Basics

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Event Listeners

API

Method allows you to add event listeners on any HTML DOM object such as HTML elements

Syntax : `element.addEventListener(event, function, useCapture);`

events

It is a way to attach a function to an element or an object that will be executed when a certain event occurs.

DOM | Application Programming Interface

Basics

HTML DOM

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API

It is a way to attach a function to an element or an object that will be executed when a certain event occurs.

localStorage

***setItem**(key,variable)*

***getItem**(key)*

***removeItem**(key)*

open/close

***open**(url)*

***close**()*

history

***back**(n)*

***go**(n)*