JavaScript/Introduction to Programming

WEEK 1:

1.Introduction To JavaScript

2.Lexical Structure of JavaScript

- 2.1 The Text of JavaScript Program
- 2.2 Identifiers & Reserved Words
- 2.3 Comments
- 2.4 The Use of Semi-colons

3.Variable Declaration

- 3.1 Introduction & Overview
- 3.2 Declaration with let
- 3.3 Declaration with const
- 3.4 Variable Declaration with var
- 3.5 Scope of Variables (Local & Global Scope)

4.JavaScript Data Types & Values

- 4.1 Introduction & Overview
- 4.2 Numbers
  - 4.2.1 Integer Literals
  - 4.2.2 Floating-Point Literals
  - 4.2.3 Arithmetic Operation with Numbers
- 4.3 Text/Strings as A Data Type
  - 4.3.1 String Literals
  - 4.3.2 Escape Sequence

4.3.3 Use of Backslash

4.3.4 Working with Strings

4.3.5 Template Literals

4.4 Boolean Values

5.Expressions & Operators

5.1 Arithmetic Operators & Performing Mathematical Operations In JS

5.2 Comparison Operators

5.3 Equality & Inequality Operators

5.4 Logical Expressions

5.4.1 Logical AND

5.4.2 Logical OR (||)

5.4.3 Logical Not

5.5 Ternary Operators (? :)

5.6 Null-coalescing Operators(??)

5.7 Spaceship Operator (<=>)

WEEK 2:

6.Statements

6.1 Introduction & Overview

6.2 Conditional Statements

6.2.1 if

6.2.2 else if

6.2.3 else

6.2.4 Switch

6.3 Loops

6.3.1 While

6.3.2 for

6.3.3 do/while

6.3.4 break

6.3.5 continue

6.3.6 yield

7.Functions

7.1 Introduction & Overview

7.2 Function Declaration

7.3 Functions as Values

7.4 Function Call/Invoking Functions

7.5 The Return Statement

7.6 Function Arguments & Parameters

7.7 Nested Functions

7.8 Rest Parameters

7.9 The Arrow Function

7.9 Closures

WEEK 3:

8.Arrays

8.1 Introduction & Overview

8.2 Creating Arrays

8.3 Array Length

8.4 Reading & Writing Array Elements

8.5 Multidimensional Arrays

8.6 Array Methods

8.6.1 Array Iterator Methods (for each loop, map(), filter())

8.6.2 concat()

8.6.3 Adding & Deleting Array Elements Methods(slice(), splice(), push(), pop(), shift(), unshift())

8.6.4 entries

8.6.5 Array Searching & Sorting Methods

9.Document Object Model (DOM)

9.1 Overview & Introduction

9.2 DOM Tree Structure

9.3 Creating Nodes

9.4 Query Selectors

9.4.1 querySelector()

9.4.2 querySelectorAll()

9.5 Selecting Document Elements with CSS Selectors

9.5.1 getElementById()

9.5.2 getElementsByClassName()

9.5.3 getElementsByTagName()

9.5.6 getElementsByName()

9.6 Attributes

9.7 Replacing Content

9.8 Changing Content

10.Events

10.1 Overview & Introduction

10.2 Events Categories

10.2.1 Device-dependent input events

10.2.2 Device-independent input events

10.2.3 User interface events

10.3 Event Handlers

10.4 Event Propagation

10.5 Event Cancellation