HTML Syllabus

Module 1: Web Programming Introduction

- Web Development Introduction
- Web Technologies
- Where do HTML and CSS and JavaScript fit in

Module 2: HTML Introduction

- History of HTML
- What are HTML Tags and Attributes
- How to differentiate HTML document versions

Module 3: HTML Tags & Attributes

- Formatting Tags
  - Basic Tags
  - Formatting Tags
  - Color Coding
- Grouping Tags
  - Div
  - Span
- List Tags
  - Unordered
  - Ordered
  - Description List
- Images
  - Image tags
- Tables
  - Table
  - Table Header
  - Table Data
  - Table Row
- Form Tags

- o Input
- o Text Area
- o Button
- o Select
- Header Tags
  - o Title
  - o Link
  - o Style
  - o Script

Module 4: Hyperlinks

- Anchor tags & href
- Linking to other websites
- Linking to pages within a website
- Opening a link in a new browser/tab

CSS Syllabus

Module 1: Introduction to CSS

- Style Tag
- Types of Styles
- How to link external stylesheet in html document
- HEX Color Codes

Module 2: CSS Selectors

- The class attributes
- ID attributes
- Element Selector
- Select all Element on the page

Module 3: Layouts

- Display
- Flexbox

JavaScript

Module 1: Introduction to JavaScript

- What is Programming
- What is JavaScript
- Use of JavaScript
- Create JS file
- Introduction to Developer Tools

Module 2: Variables, Data Types and Operators

- Defining and Using variables
- Let and Const and Var
- Number, String and Object types
- Arithmetic Operator
- Assignment Operator
- Comparison Operator
- Logical Operator
- Type Operator

Module 3: Loops, Decision Making, Strings, Objects

- For Loop and While Loop
- For In and For Of
- If else, if else if else and its nesting constructs
- Strings and Its methods
- String Search

Module 4: Arrays, Functions and Events

- Arrays
- Iteration on Arrays
- Functions and Parameters
- Events – click or change event, mouseover and mouseout events and onload

Module 5: ES6 Syntax – Classes, and Arrow Functions

- Classes and Objects
- Constructors
- Class Methods
- Instantiate Classes

Java

Module 1: Introduction to Java

- What is Java
- History of Java
- Features of Java
- Other Programming Languages (JavaScript) vs Java
- JDK, JRE and JVM
- Basic Program (hello world)

Module 2: Variables and Data Types

- What are variables
- Data Types
- Primitive Data Types
- Type Casting
- Comments

Module 3: Operators

- Unary
- Arithmetic
- Relational
- Assignment
- Logical
- Ternary
- Operator Precedence

Module 4: Control Statements

- If-Else
- Loops
    - For
    - While
    - Do While

- Switch
- Nested If-else
- Continue
- break

Module 5: Classes and Objects

- Classes
- Objects
- Object Instantiation
- Scope
- Method

Module 6: Non-primitive Data Types

- Strings
- Arrays
- Classes

Module 7: Object Oriented Paradigm

- Inheritance
- Types of Inheritance
- Polymorphism
- Access Modifiers
  - Public
  - Protected
  - Private
- Encapsulation
- Abstraction

Module 8: Interfaces

- Create interfaces
- Use interfaces
- How to extend interfaces

Module 9: Method Overloading

- What is method overloading
- Implement method overloading
- Use case of method overloading

Module 10: Packages and User Input (if time permits)

- What are packages
- Create your own packages
- Use them in your program
- Import other packages
- Use scanner for inputs