

Full Stack Application Development with Cloud Computing

Module 2 – Front-End Development Tools, Technologies and Frameworks

Lab - 3

Unit 3 - JavaScript and DOM Manipulation

Topic: Control structure in Java Script

Ex. 1: Creating a JavaScript program that showcases various control structures

```
<!DOCTYPE html>
<html>
<head>
  <title>Control Structures in JavaScript</title>
</head>
<body>
  <div>
    <h2>If Statement</h2>
    <p id="ifOutput"></p>
  </div>

  <div>
    <h2>For Loop</h2>
    <p id="forOutput"></p>
  </div>

  <div>
    <h2>While Loop</h2>
    <p id="whileOutput"></p>
  </div>
```

```
<div>
  <h2>Switch Statement</h2>
  <p id="switchOutput"></p>
</div>
```

```
<script>
  var ifOutput = document.getElementById("ifOutput");
  var forOutput = document.getElementById("forOutput");
  var whileOutput = document.getElementById("whileOutput");
  var switchOutput = document.getElementById("switchOutput");
```

```
// If Statement
var age = 18;
if (age >= 18) {
  ifOutput.textContent = "You are an adult.";
} else {
  ifOutput.textContent = "You are a minor.";
}
```

```
// For Loop
var sum = 0;
for (var i = 1; i <= 5; i++) {
  sum += i;
}
forOutput.textContent = "Sum using for loop: " + sum;
```

```
// While Loop
var product = 1;
var counter = 1;
while (counter <= 5) {
  product *= counter;
  counter++;
}
```

```
}  
whileOutput.textContent = "Product using while loop: " + product;  
  
// Switch Statement  
var day = "Monday";  
var dayType = "";  
switch (day) {  
    case "Saturday":  
    case "Sunday":  
        dayType = "weekend";  
        break;  
    default:  
        dayType = "weekday";  
}  
switchOutput.textContent = "Today is a " + dayType + ".";  
</script>  
</body>  
</html>
```

Output

If Statement

You are an adult.

For Loop

Sum using for loop: 15

While Loop

Product using while loop: 120

Switch Statement

Today is a weekday.

Practice Question

Ex. 2: Develop a web page which include:

- Program to check the user is a senior citizen by age and display a message accordingly.
- Using iterate for and while statement to display numbers from 1 to 5 and calculate their sum
- An example of how you could use it to determine the day of the week based on a user-provided number (1-7)