Lecture-05: Switch Case in JavaScript

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Introduction to Switch Case:

The "switch" statement in JavaScript provides an efficient way to handle multiple conditions and execute different code blocks based on the value of an expression. It simplifies code readability and maintainability, especially when dealing with numerous conditions.

Syntax:

```javascript
switch (expression) {
    case value1:
        // Code block executed when expression matches value1
        break;
    case value2:
        // Code block executed when expression matches value2
        break;
    // Add more cases as needed
    default:
    // Code block executed when none of the cases match the
expression
    }
```

Switch Case Example:

Let's consider a scenario where we want to display the day name based on the day number (1 to 7).

```javascript
var day = 3;
var dayName;

switch (day) {
    case 1:
        dayName = "Sunday";
```

```
                break;
          case 2:
                dayName = "Monday";
                break;
          case 3:
                dayName = "Tuesday";
                break;
          case 4:
                dayName = "Wednesday";
                break;
          case 5:
                dayName = "Thursday";
                break;
          case 6:
                dayName = "Friday";
                break;
          case 7:
                dayName = "Saturday";
                break;
          default:
                dayName = "Invalid day";
    }

    document.write("Day " + day + " is " + dayName);
```

In this example, the switch statement evaluates the value of the "day" variable and matches it with the appropriate case. If the value of "day" is 3, the output will be "Day 3 is Tuesday."

Handling Multiple Cases:

Switch cases can be used to handle multiple values and execute the same code block for different cases.

```
    var grade = "B+";
    var remarks;

    switch (grade) {
          case "A+":
          case "A":
                remarks = "Excellent!";
                break;
          case "B+":
          case "B":
                remarks = "Very Good!";
```

```
            break;
        case "C":
            remarks = "Good";
            break;
        default:
            remarks = "Need Improvement";
    }

    document.write("Grade " + grade + ": " + remarks);
```

In this example, both "A+" and "A" are treated as "Excellent!" and both "B+" and "B" are treated as "Very Good!"

Advantages of Switch Case:

- Simplifies code by avoiding long chains of "if-else" statements.

- Enhances code readability and maintainability.

- Provides a more structured approach when handling multiple conditions.

Switch case statements are powerful tools in JavaScript for efficiently handling multiple conditions and making code more organized.