# Lecture-03: Nested If and Loop in JavaScript

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## Nested If:

In a nested if, there is an additional if statement inside another if statement.

    <script>

        var age = prompt("Enter Your Age");

        if (age <= 18) {

            // Taking input for 14 subjects

            // Calculating total marks and percentage

            // Printing grade based on percentage

        }

        </script>

## Loop:

A loop is used for repetitive tasks. It repeats a set of instructions until a specific condition is met.

### Types of Loops:

1. Pre Level:

* do-while

1. Post Level:

* for
* while

#### Example of Post Level "for" Loop:

    <script>

        for (var i = 0; i <= 10; i++) {

            document.write("Khuzaima Ahmed<br>");

        }

        </script>

In this example, the loop will print "Khuzaima Ahmed" ten times, as the value of i increments from 0 to 10.

#### Leap Year Program:

A program to find leap years between 2001 and 2023 and count the total leap years.

    <script>

        var count = 0;

        for (var i = 2001; i <= 2023; i++) {

            if (i % 4 === 0) {

                count++;

                document.write("Leap Year " + i + "<br>");

            } else {

                document.write("Not a Leap Year " + i + "<br>");

            }

        }

        document.write("Total Leap Year Counts = " + count);

        </script>

In this program, the loop checks each year between 2001 and 2023 to see if it's a leap year or not. It prints the result for each year and counts the total leap years.

Remember, loops help reduce manual effort and make repetitive tasks more manageable.