

Lecture-04: “for” Loop in JavaScript

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Introduction to For Loop:

- The "for" loop is used for executing a block of code repeatedly until a specified condition is met.
- It consists of three parts: initialization, condition, and increment/decrement.

Syntax:

```
for (initialization; condition; increment / decrement) {  
    // Code to be executed  
}
```

Dynamic Program with For Loop:

```
let name = ["Khuzaima", "Huzaifa", "Afzal", "Shoaib", "Hafiz  
Yousuf", "Abdul Rafay", "Muneeb Hassan", "Misbah", "Sana Kiran",  
"Kashaf", "Kinza"];  
  
for (var i = 0; i < name.length; i++) {  
    document.write("Student Name = " + name[i] + "<br>");  
}
```

In this example, the loop iterates through the "name" array and prints each student's name one by one.

Countdown Program with For Loop:

```
for (var k = 10; k >= 1; k--) {  
    document.write(k + "<br>");  
}
```

In this program, the loop starts from 10 and counts down to 1, printing each value in reverse order.

Looping through Multiple Arrays:

```
var array1 = [1, 2, 3, 4, 5];  
var array2 = [10, 20, 30, 40, 50];  
var array3 = [100, 200, 300, 400, 500];  
  
for (var i = 0; i < array1.length; i++) {  
    document.write("Array1: " + array1[i] + ", Array2: " +  
array2[i] + ", Array3: " + array3[i] + "<br>");  
}
```

In this example, the loop iterates through all three arrays simultaneously, displaying corresponding elements in each iteration.

Iteration Terminology:

- The first iteration has an index of 0.
- The second iteration has an index of 1, and so on.

Remember, you can use "for" loops to iterate through arrays, perform repetitive tasks, and simplify your code.