

JavaScript Loops

Topics Covered

- JavaScript Loops
- Types of Loops
 - for
 - for/in
 - for/of
 - while
 - do/while

Topics in Detail

JavaScript Loops

- **Loops** can execute a block of code any **number of times**.
- **Loops** helps to run the **same code** any number of times with **different values** each time.

Entry Controlled Loop: The **Condition** is tested **before** the entry of the Loop body.

Eg: For Loop and While Loop.

Exit Controlled Loop: The **Condition** is tested at the **end** of the Loop body. In this case the loop will be executed at least **once** irrespective of the condition.

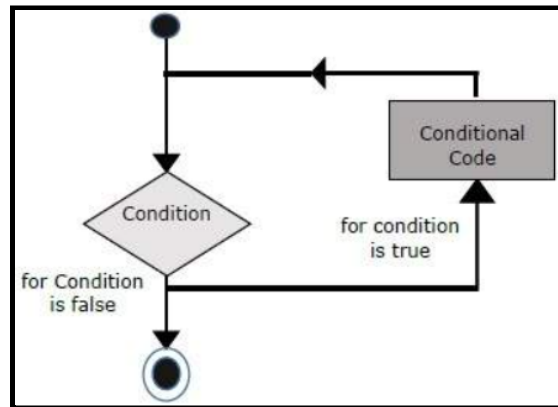
Eg: Do While Loop.

Types of Loops

- for
- for/in
- for/of
- while
- do/while

The For Loop

- The For Loop is used when the number of iterations is known.



- Syntax

```

for (initialization; condition; increment)
{
    code to be executed
}
  
```

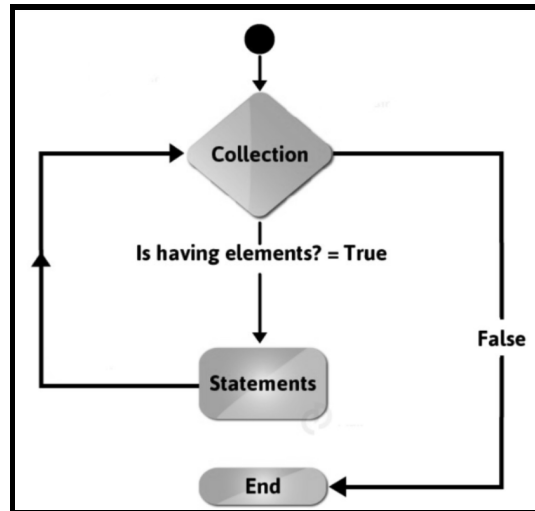
Initialization	Initialize the variable in use.
Condition	Exit condition is tested here. It returns a boolean value . Condition is checked prior to the execution of the loop statement.
Code	If the condition is true , then the Loop statement is executed.
Increment/Decrement	Update values for next iteration .

The For In Loop

- The For In Loop is used to **iterate** through an **object's keys**.
- Syntax

```

for (variablename in object) {
    statement or block to execute
}
  
```



- The **order** of the properties iterated **may not match** with that defined in the object.
- So generally **for in loop** is **not** recommended for use over **arrays**.
- If the **index order** of the array is important, then in that case **don't** use For In Loop.

The For Of Loop

- The For of loop is used to **iterate** over the **values** of the **iterable object** such as
 - Array
 - String
 - Maps
 - NodeList etc.
- **Syntax**

```

for (variable of iterable) {
    // code block to be executed
}
  
```

- The For of Loop is **not** supported in **Internet Explorer**.
- To execute on the value of each property of the object the For Of Loop calls a **custom iteration hook**.