

LOOPS IN JAVASCRIPT



JAVASCRIPT LOOPS

The JavaScript loops are used to iterate the piece of code using for, while, do while or for-in loops. It makes the code compact. It is mostly used in array.

There are four types of loops in javascript –

- ✓ For loop
- ✓ While loop
- ✓ Do-while loop
- ✓ For-in loop
- ✓ For-Of Loop

FOR LOOP :

A For loop repeats until a specified condition evaluates to false. The JavaScript for loop is similar to the Java and C for loop.

loops through a block of code a number of times

A for Loop looks as follows :

```
for (initialization; condition; afterthought) {  
    // statement & code  
}
```

Example :

```
for( var i=0; i<10; i++ ) {  
    document.write(i);  
}
```

FOR LOOP EXERCISE:

Q.1 – Print even number between 1-100 ?

Q.2 – Print the table of 1 to 10 ?

Q.3 – Print the square of numbers 1-10? Ex - 1^2 2^2 3^2 10^2

Q.4 – Print add sum of natural numbers 1 - 100 ? Ex -> $1+2+3+4+5$ 100,

Q.5 - Given a number n Calculate the factorial of the number. Ex -> $5*4*3*2*1$

Q.6 - Iterate through all numbers from 1 to 45. Print the following:

For multiples of 3 print “Fizz”

For multiples of 5 print “Buzz”

For multiples of 3 and 5 print “FizzBuzz”

WHILE LOOP :

: loops through a block of code while a specified condition.

: The java script while loop iterates the elements for the infinite number of times.

A While Loop looks as follows :

```
While (condition) {  
    // code to be execute  
}
```

Example :

```
var i = 1;  
while(i<=10){  
    Document.write(i);  
    i++;  
}
```

DO-WHILE LOOP :

: The Do-while Loop statement repeats until a specified condition evaluates to false.

A While Loop looks as follows :

```
do {  
    // code to be execute  
}  
While(condition);
```

Example :

```
i=0;  
do{  
    document.write(i);  
    i++;  
}  
While(i<10);
```


FOR IN LOOP :

: The java script for in statement loops through the properties of an Object:

```
for (key in object) {  
    // code block to be executed  
}
```

Example :

```
var person = {fname : "ajay", lname : "negi", age : 21 };
```

```
For(value in person){
```

```
Document.write(value); //output : fname , lname , age//
```

```
Document.write(person[value]); //output : ajay , negi , 21 //
```

```
}
```

FOR OF LOOP :

: The Java Script for of statement loops through the values of an iterable object.

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

Example :

```
var language = "JavaScript";  
var cars = ["BMW", "Volvo", "Mini"];  
For(value of cars){  
    Document.write(value);           // output : Bmw , Volvo , Mini  
}  
For(value in language){  
    Document.write(value);           //output : j a v a s c r i p t  
}
```