

14. JavaScript While Loop

Loops can execute a block of code as long as a specified condition is true.

14.1. The While Loop

The while loop loops through a block of code as long as a specified condition is true.

Syntax

```
while (condition)
{
    code block to be executed
}
```

Example

The loop in this example will continue to run as long as the variable i is less than 5:

```
while (i<5)
{
    x=x + "The number is " + i + "<br>";
    i++;
}
```



If you forget to increase the variable used in the condition, the loop will never end. This will crash your browser.

14.2. The Do/While Loop

The do/while loop is a variant of the while loop. This loop will execute the code block once, before checking if the condition is true, then it will repeat the loop as long as the condition is true.

Syntax

```
do
{
    code block to be executed
}
```

```
    }  
    while (condition);
```

Example

The example below uses a do/while loop. The loop will always be executed at least once, even if the condition is false, because the code block is executed before the condition is tested:

```
do  
{  
    x=x + "The number is " + i + "<br>";  
    i++;  
}  
while (i<5);
```

Do not forget to increase the variable used in the condition, otherwise the loop will never end!

14.3. Comparing For and While

If you have read the previous chapter, about the for loop, you will discover that a while loop is much the same as a for loop, with statement 1 and statement 3 omitted.

The loop in this example uses a **for loop** to display all the values in the cars array:

Example

```
cars=["BMW","Volvo","Saab","Ford"];  
var i=0;  
for (;cars[i];)  
{  
    document.write(cars[i] + "<br>");  
    i++;  
}
```

The loop in this example uses a **while loop** to display all the values in the cars array:

Example

```
cars=["BMW","Volvo","Saab","Ford"];  
var i=0;  
while (cars[i])
```

```
{  
  document.write(cars[i] + "<br>");  
  i++;  
}
```