
For and While Loops

What is a loop?

Loops are a way for you to repeat code without having to manually type each line

For example if I wanted to see if a variable equaled 1 - 100 I would have to make an IF or Switch statement from 1 - 100

```
var x = 57;  
  
if(x ==1){  
    alert("1");  
}  
  
else if(x ==2){  
    alert("2");  
}
```

Instead use a loop!

While Loop

While loops “loop” through a block of code as long as the condition is true.

```
var i = 0;
```

```
while(i < 10){
```

```
    console.log("Hello");
```

```
    i++;
```

```
}
```

While Loop Demo

Lets try it

```
var i = 0;  
while(i < 10){  
    console.log("Hello");  
    i++;  
}
```

Infinite Loops.....BEWARE!!!!

If you create a statement in your code that is always true you create an infinite loop and your code will eventually error out. Make sure you always have an EXIT planned for your loops!

```
var i = 0;
```

```
while(i < 10){
```

```
    console.log("Hello"); //This would output Hello indefinitely
```

```
}
```

For Loop

For loops work the same as while loops but you define the incrementing or decrementing variable in the statement

```
for(var i = 0; i < 10; i++){  
    console.log("Hello;");  
}
```

OR

```
for(var i = 10; i > 0; i--){  
    console.log("Hello;");  
}
```

For Loop Demo

Lets try it

```
for(var i = 0; i < 10; i++){  
    console.log("Hello;");  
}
```

OR

```
for(var i = 10; i > 0; i--){  
    console.log("Hello;");  
}
```

Building pages using For and While loops

We can use for and while loops to build dynamic divs on a page

```
function buildPage() {
```

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

```
        document.getElementById("BuilderDiv").innerHTML += "Hello<br>"
```

```
    }
```

```
}
```

Lets try it