
JavaScript II

Control Flow

Control Flow

- 
- Straight Control Flow: in sequence

```
var theNumber = Number(prompt("Pick a number", ""));  
alert("Your number is the square root of " +  
      theNumber * theNumber);
```

Control Flow



- Conditional execution

You can add omit braces { } (these indicate *blocks*) if there is only one line in the code you want to run.

```
var theNumber = Number(prompt("Pick a number", ""));  
if (!isNaN(theNumber)){  
    alert("Your number is the square root of " +  
        theNumber * theNumber);  
}
```

Control Flow Con't



- Conditional Execution with else

```
var theNumber = Number(prompt("Pick a number", ""));  
if (!isNaN(theNumber))  
    alert("Your number is the square root of " +  
          theNumber * theNumber);  
else  
    alert("Hey. Why didn't you give me a number?");
```

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- Multiple Conditions:

```
var num = Number(prompt("Pick a number", "0"));
```

```
if (num < 10)
    alert("Small");
else if (num < 100)
    alert("Medium");
else
    alert("Large");
```

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- While loops:

```
var number = 0;
while (number <= 12) {
  console.log(number);
  number = number + 2;
}
// → 0
// → 2
// ... etcetera
```

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Another while loop example:

```
var result = 1;
var counter = 0;
while (counter < 10) {
  result = result * 2;
  counter = counter + 1;
}
console.log(result);
// → 1024
```

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- Do...While loop:

```
do {  
    var yourName = prompt("Who are you?");  
} while (!yourName);  
console.log(yourName);
```

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- For loop:

```
for (var number = 0; number <= 12; number = number + 2)
  console.log(number);
// → 0
// → 2
// ... etcetera
```

Control Flow Con't



- Breaking out of a loop: use `break;`
- Go to next iteration: use `continue;`

```
for (var current = 20; ; current++) {  
    if (current % 7 == 0)  
        break;  
}  
console.log(current);  
// → 21
```

Control Flow Con't

- Switches:

```
switch (prompt("What is the weather like?")) {  
  case "rainy":  
    console.log("Remember to bring an umbrella.");  
    break;  
  case "sunny":  
    console.log("Dress lightly.");  
  case "cloudy":  
    console.log("Go outside.");  
    break;  
  default:  
    console.log("Unknown weather type!");  
    break;  
}
```

Updating Variables Succinctly

- Shorthand updates:
 `counter = counter + 1;`
 is the same as
 `counter += 1;`
 - The same goes for `-`, `*`, `/`
 - Increments and decrements:
 `counter++`, `counter--`
-

Comments

- Same as Java, two forward slashes (//)
- Multiline: (/**/)

```
var accountBalance = calculateBalance(account);  
// It's a green hollow where a river sings  
/*
```

I first found this number scrawled on the back of one of my notebooks a few years ago. Since then, it has often dropped by, showing up in phone numbers and the serial numbers of products that I've bought. It obviously likes me, so I've decided to keep it.

```
*/  
var myNumber = 11213;
```
