JavaScript II

Control Flow
Control Flow

- Straight Control Flow: in sequence

```javascript
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.

```javascript
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`

```javascript
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:

```javascript
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:

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

```javascript
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:

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

```javascript
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`;

```javascript
for (var current = 20; ; current++) {
  if (current % 7 == 0)
    break;
}
console.log(current);
// → 21
```
Control Flow Con’t

● Switches:

```javascript
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: (/**/)

```javascript
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;
```