Tutorial #6

Arrays

SOEN 287

JavaScript Arrays

An array is a special variable, which can hold more than one value at a time.

Create an Array
```
var fruits = ["Apple", "Banana"];
```

```
console.log(fruits.length);
// 2
```

Syntax
```
[element0, element1, ..., elementN]
new Array(element0, element1,...)
new Array(arrayLength)
```

Access (index into) an Array item

```
var first = fruits[0];
// Apple

var last = fruits[fruits.length - 1];
// Banana
```

Loop over an Array

```javascript
fruits.forEach(function (item, index, array) {
  console.log(item, index);
});
// Apple 0
// Banana 1
```

Add to the end of an Array

```javascript
var newLength = fruits.push("Orange");
// ["Apple", "Banana", "Orange"]
```

Remove from the end of an Array

```javascript
var last = fruits.pop(); // remove Orange (from the end)
// ["Apple", "Banana"];
```

Remove from the front of an Array

```
var first = fruits.shift(); // remove Apple from the front
// ["Banana"];
```

Add to the front of an Array

```
var newLength = fruits.unshift("Strawberry") // add to the front
// ["Strawberry", "Banana"];
```

Find the index of an item in the Array

```
fruits.push("Mango");
// ["Strawberry", "Banana", "Mango"]


var pos = fruits.indexOf("Banana");
// 1
```


Remove an item by Index Position

```
var removedItem = fruits.splice(pos, 1); // this is how to remove an item

// ["Strawberry", "Mango"]
```

Copy an Array

```
var shallowCopy = fruits.slice(); // this is how to make a copy
// ["Strawberry"]
```