

INTRODUCTION TO JAVASCRIPT

OBJECTS

- ▶ Objects - are a collection of properties, and a property is an association between a name (or key) and a value.
- ▶ Objects like arrays - are able to store one or more values.
- ▶ Unlike arrays we do not use indexes to store values.
- ▶ We declare objects by using the {} brackets

```
1  var myObject = {  
2    |  hello: "World",  
3    |  myName: "Kirk"  
4    |  }
```

- ▶ Think of objects like a dictionary

```
1  var dictionary = {  
2      curious: "Eager to know or learn  
   something",  
3      studious: "Showing great care or  
   attention",  
4      bumfuzzle: "Being highly confused"  
5  }
```

- ▶ Where words are the keys of the object and the definition is the value.

- Objects like arrays can hold any type of value.

```
var myObj = {  
  nameObj: {  
    firstName: "Captain",  
    lastName: "Fancy"  
  },  
  favoriteSaying: "Do Work!",  
  listOfFriends: ["Bunkus", "The Business",  
    "Lieutenant Dancy"],  
  methodOfMadness: function () {  
    return "Make it rain"  
  }  
}
```

- ▶ When accessing values in objects we can use two different ways.
- ▶ 1st we can use the dot notation to access values like on line 13

```
1  var myObj = {  
2    nameObj: {  
3      firstName: "Captain",  
4      lastName: "Fancy"  
5    },  
6    favoriteSaying: "Do Work!",  
7    listOfFriends: ["Bunkus", "The Business",  
8                  "Lieutenant Dancy"],  
9    methodOfMadness: function () {  
10     return "Make it rain"  
11   },  
12 }  
13 myObj.favoriteSaying // -> Do Work!
```

- ▶ We can also access value in an object by using bracket notation.

```
1  var myObj = {  
2    nameObj: {  
3      firstName: "Captain",  
4      lastName: "Fancy"  
5    },  
6    favoriteSaying: "Do Work!",  
7    listOfFriends: ["Bunkus", "The Business",  
8                  "Lieutenant Dancy"],  
9    methodOfMadness: function () {  
10     return "Make it rain"  
11   },  
12 }  
13 myObj["listOfFriends"] // -> ["Bunkus",  
    "The Business", "Lieutenant Dancy"]
```

- ▶ We can also add properties to objects by using the bracket a dot notation.

```
1  var myObj = {}  
2  
3  myObj["firstName"] = "Kirk"  
4  myObj.brother = "Jesse"  
5  
6  console.log(myObj)
```

```
{ firstName: 'Kirk', brother: 'Jesse' }
```

- ▶ Methods vs Properties
- ▶ A **property** is any value attached to an object
- ▶ A **method** is a value attached to an object where the value is a function

```
1  var mathObject = {  
2      add: function(a,b) {return a + b},  
3      subtract: function(a,b) {return a - b}  
4  }  
5  
6  mathObject.add(5,10) // -> 15  
7  mathObject.subtract(10, 8) // -> 2
```

- ▶ We invoke these methods like a regular function.

- ▶ When looping through objects - we want to start off by using a **for in** loop.

```
1  var myObj = {  
2    firstName: "Kirk",  
3    lastName: "Sullivan",  
4    age: 1000,  
5    favoriteFood: "acai bowls"  
6  }  
7  
8  for(key in myObj) {  
9    console.log(myObj[key])  
10 }
```

```
Kirk  
Sullivan  
1000  
acai bowls
```

- ▶ Note: Here I'm using bracket notation to access the keys of the object - the data type of key in this example is a string. So we do not have to include the quotes

- ▶ References:
- ▶ [MDN for in loop](#)
- ▶ [MDN Working with objects](#)
- ▶ [Objects in EloquentJS](#)