



```
Data type of coffee is string
var coffee = "Pumpkin Spice Latte";
coffee.length = 19 (space also count)
coffee[2] = 'm'
coffee[11] = 'c'
coffee.charAt(10) = 'i'
```

Names of schools (Football Rankings)

Big 10 schools

```
bar b10 = ["UIUC", "IU", "Iowa", "UMD", "UMich", "MSU",
           "Minnesota", "Nebraska", "Northwestern",
           "OSU", "Penn State", "Purdue", "Rutgers" ];
```

An array of "Strings"

".length" is a computer science term. We start counting from "1".

We get a total of 13 things in b10. So its length is 13.

```
b10[0] = "UIUC"
```

```
b10[1] = "IU"
```

```
b10[2] = "Iowa" (Answer)
```

```
b10[3] = "UMD"
```

```
b10[4] = "UMich"
```

```
b10[5] = "MSU"
```

```
b10[6] = "Minnesota"
```

```
b10[7] = "Nebraska"
```

```
b10[8] = "Northwestern"
```

```
b10[9] = "OSU"
```

```
b10[10] = "Penn State"
```

```
b10[11] = "Purdue"
```

```
b10[0].length = "UIUC".length = 4
```

```
b10[0][0] = "U"
```

```
b10[0][1] = "UIUC"[1] = "I"
```

```
b10[0][2] = "U"
```

```
b10[0][3] = "C"
```

every time the loop runs, b10school is set to b10[i]

i=0

```
b10school = b10[i] = "UIUC"
```

```
b10school[0] == "U" so count 1
```

i = 1  
b10school = b10[1] = "IU"  
count still 1

i=2  
b10school = b10[2] = "Iowa", b10school[0] is not "U"  
count still 1

i=3  
b10school = b10[3] = "UMD"  
b10school[0] == "U"  
count = 2

i=4  
b10school = b10[4] = "UMich"  
b10school[0] is "U"  
so, count = 3

i=5  
b10school = b10[5] = "Minnesota"  
b10school[0] is not "U"  
so, count = 3

And we have run loop 6 times, so count = 3  
And no other school name starts with "U", so count value is 3

b10meme takes in 1 parameter  
When I call b10meme, I will write

The function will run taking different names:  
Different names will be input, to get different meme strings.

```
b10meme("UIUC");  
b10meme("Michigan");  
b10meme("Iowa");
```

```
1 var b10meme = function(school) {
2   if (school == "UIUC") {
3     return "UIUC #1";
4   } else if (school == "Illinoi") {
5     return "UIUC # 1";
6   } else {
7     return ("Boo "+school);
8   }
9 };
10
11 var s = b10meme("UIUC");
12 alert (s);
13
14 s = b10meme("Michigan");
15 alert(s);
16
17 s = b10meme("Iowa");
18 alert(s);
19
20 s = b10meme("Illinois");
21 alert(s);
22
```

JavaScript



The page at <https://fiddle.jshell.net> says:

UIUC #1

OK

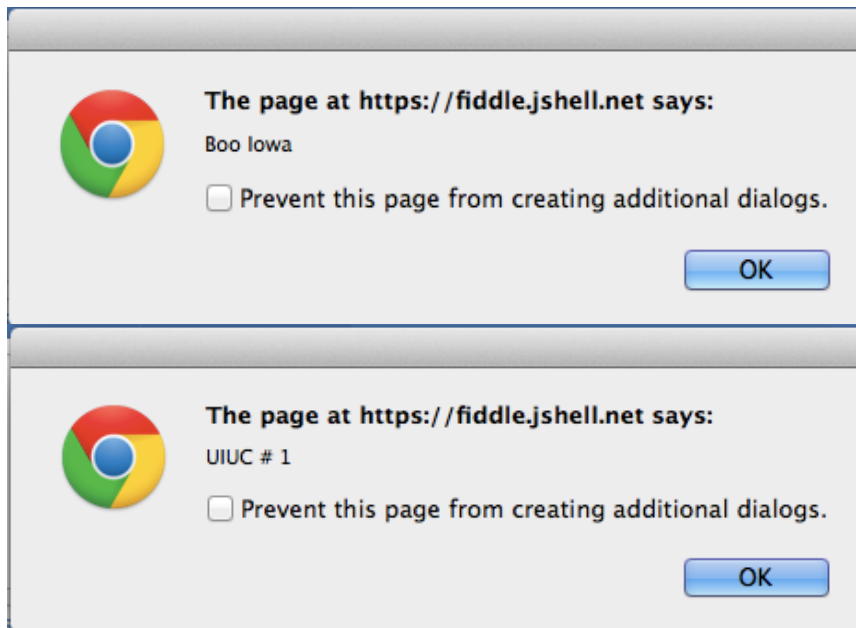


The page at <https://fiddle.jshell.net> says:

Boo Michigan

Prevent this page from creating additional dialogs.

OK



Primitive data types: built in Javascript

Custom data types: have to build them doing something extra

Javascript Objects:

Objects allow us to associate data in a dictionary.

They use the dot operator to connect the object **wade** with the object properties.

**name**, **netID** and **office** are the properties of this object.

```
wade.name = "Wade";
```

```
wade.netID = "waf";
```

```
wade.office = "2215 SC";
```

Up till now, we hide the magic from you. So, when you click on something, the code runs. You did the processing to get Instagram filter. We did it through html. HTML is the language that makes web page. It is not a programming language. It is static. Once you write it, that is its content.

Helps you arrange things. not what you do with them.

If you want to make your web-page interactive, you need programming (Javascript).

We will start to see how to connect the html with the Javascript.