DEPOT/U

Programming Concepts – Document Object Model

Agenda

9am	Solution Review
9:30am	Programming Concepts – DOM
11am	Chad Ballard – VP of Innovation – BBVA Compass
12:00pm	Lunch
1-5pm	Lab

Variables

- Symbolic name that contains a real value
  ```
  var x = 'y';
  var z = 123;
  ```
- Types
  - String, integer, float, etc.
- Dynamic vs. Strong Typing

  ```
  JS (dynamic):   var mydynamic = 'mystr';  mydynamic = 123;
  TS (strong):    var mystrong : string = 'mystr';
     mystrong = 1234;
  ```
  is NOT valid in a strongly typed language

Data Types

- Primitive Types – string, integer, double, float
- Object
  - User defined

```
var myobject = {
    name = 'Matt',
    email = 'matt@getplatypi.com'
}
console.log(myobject.name);
myobject.email = 'matt@platypi.io';
```

Control Flow

- IF, ELSE
  - >, <, =, !=
- Switch
- Loops
  - For
  - While
  - ForEach

Functions

- Encapsulate reusable code
- Scope
- Example
```
function add(a,b) {
    return a + b;
}
console.log(add(5,10);
```

Document Object Model

- HTML available in JavaScript
  - document object
- Create elements/nodes
  - document.createElement
  - document.createTextNode
- Add/Remove elements
  - document.appendChild
  - document.insertBefore
  - document.removeChild

DOM – cont'd

- Getting an Element
  - document.getElementById
  ```
  <div id="mydiv"></div>
  var element = document.getElementById('mydiv');
  ```
- Getting Elements
  - document.getElementsByTagName
  - document.getElementsByClassName
  - Returns an array of elements
    ```
    <div class="red"></div>
    <p class="red"></p>
    var element = document.getElementsByClassName('red')[0];
    ```

DOM – cont'd

- DOM cannot be manipulated prior to the DOM content loading
  - DOMContentLoaded event, document.onreadystatechanged
- Example

```
document.addEventListener('DOMContentLoaded', function() {
        var element = document.createElement('div');
        element.innerText = 'Hello World!';
        element.style.color = 'blue';
        document.body.appendChild(element);
});
```

Day 3 Lab

Interacting with the DOM