


An Unusual story of JavaScript



A Story of JavaScript

- A Programmer was asked by his “boss” (in 1995) to design a language with following attributes
 - Simple
 - Modern
 - To be used by Casual Programmers
 - Embeddable inside a Browser
 - A Choice made by that programmer had deep consequences and resulted in “grotesque” language for those times.
 - Years later, when processing power improved, that language morphed into a “ubiquitous language”
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Simple means “Dynamic Typing”

Bane of newbies is “Static Typing”
Brendon Eich chose Dynamic Typing

```
var a = 2;  
b = 2.3  
console.log(a/b);  
a = "Hello World..";  
console.log(a/b);  
a = new Date();  
b = "ddd";  
console.log(a/b);  
a = 3.0;  
b = 0;  
console.log(a/b);
```

Modern means “OOP (in 1995)”

- Three Kinds of OOP
 - Class based OOP
 - Actor based OOP (Event based)
 - Prototype OOP
- Class based OOP is apt for Static Typing
- Actor based OOP might result in “Event Cacophony”
- The only choice available is “Prototype OOP”
- Prototype treats Objects as dictionary
- How to reduce a class to Key/Value dictionary?
- What constitutes a class?
 - Static and Instance variables & Static and Instance methods

```
var a = {};
```

```
a.test = 10;
```

```
console.log(a.test);
```

```
a["test"]=20;
```

```
console.log(a.test);
```

How to reduce Object into Value?

- Variables can be mapped into key/value
- Static variables can be mapped into key/value in prototype
- Reference to Static Map is placed inside each Object
- How to reduce Method to Key/Value?
 - We need a paradigm which treats Method/Function as value
 - Functional Programming fits the Bill
 - Support for functional programming was added to support prototype OOP

```
////////////////////////////////////  
//  
// Clone Temp1 object to create temp2  
//  
var temp1 = new Person("T",0,1000);  
var newObj = {};  
for( var n in temp1 )  
{  
    newObj [n] = temp1[n];  
}  
  
temp1.SayHello = function() {  
    console.log("I did a dirty trick");  
}  
  
newObj ["SayHello"]();  
temp1 ["SayHello"]();
```

Questions? If any!