

In this lecture, we will discuss...

JavaScript Types



Types

A type is a particular data structure.

- ✧ Each language defines some built-in types
- ✧ Built-in types can be used to build other data structures
- ✧ JS has 7 built-in types: 6 primitive and 1 Object type



Object Type

**Object is a collection of
name/value pairs**

Object Type

Person Object

name

```
firstName: "Yaakov",  
lastName: "Chaikin",
```

value

name

```
social: {  
  linkedin : "yaakovchaikin",  
  twitter: "yaakovchaikin",  
  facebook: "CourseraWebDev"  
}
```

value



Primitive Types

**Primitive type represents a
single, immutable value**

- ✧ Single value, i.e., not an object
- ✧ Immutable means once it's set, it can't be changed
 - Value becomes read-only
 - You can create another value based on an existing one



Primitive Type: Boolean

**Boolean can only have
2 values: `true` or `false`**



Primitive Type: Undefined

Undefined signifies that no value has ever been set

- ✧ Can only have one value: `undefined`
- ✧ You *can* set a variable to `undefined`, but you *should NEVER* do it
 - Its meaning is that it's never been defined, so defining it to `undefined` is counter to its core meaning



Primitive Type: Null

Null signifies lack of value

- ✧ As opposed to `undefined`, which is lack of definition
- ✧ Can only have one value: `null`
- ✧ It's ok to explicitly set a variable to `null`



Primitive Type: Number

Number is the only numeric type in Javascript

- ✧ Always represented under the hood as double-precision 64-bit floating point
- ✧ JS does *not* have an integer type
 - Integers are a subset of doubles instead of a separate data type



Primitive Type: String

**String is sequence of
characters used to
represent text**

- ✧ Use either single or double quotes, i.e., 'text' or "text"



Primitive Type: Symbol

Symbol is new to ES6
Not covered in this class

- ✧ **ES6 (released 2015) isn't widely supported or used yet**



Summary

- ✧ Javascript defines 7 built-in types
 - Object and 6 Primitives
- ✧ Object type is a collection of name/value pairs
- ✧ Primitive type can contain a single, immutable value
- ✧ Undefined means variable memory has been allocated but no value has ever been explicitly set yet

