Data Types

* JavaScript is a **dynamic language** meaning that you don’t have to define the type of your variables when you define them
* There are 7 datatypes in JavaScript: 6 primitives and the Object
  + 6 primitives are:
    - String – text data (i.e. name, address or chapter of a book)
    - Number – numerical values. There is no specific type for Integers.
    - Boolean – has a true or false value
    - Null – absence of value
    - Undefined – undefined value
    - Symbol (the latest addition) – value that is unique and immutable
  + Object:
    - An Object type contains key-value relationship among its properties
    - Each property has a **key** which is of type String
    - Each property key has a **value** which can be of any type, including functions

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* To create an empty Object:
  + Invoke the constructor: const car = new Object( );
  + Create an object literal (more popular method): const car = { };
* You can add new properties to an object using the **dot notation**:
  + const car = { };

car.color = ‘red’;

console.log(car); // {color: red}

* You can **access properties** on the Object with the dot notation or bracket:
  + Dot notation (not used for multi-word properties):
    - Console.log(car.wheels);
  + Use brackets:
    - Console.log(car[‘color’]);
  + Use brackets for multi-word properties:
    - Console.log(car[‘goes fast’]);
* Example: User is looking for cars. User’s favorite car brand is a key that we will use to only display back the appropriate models. Notice that no strings are around **key**, as it’s a variable name and not a string

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* Primitives are **copied by value**
* Objects are **copied by reference**