Web Advance: JavaScript

PGTE: 5505 | Section B | CRN: 7792

Instructor: Karla Polo

Week 5: JSON & Handlebars

JS OBJECTS

In JavaScript, almost "everything" is an object.

- Booleans can be objects (if defined with the **new** keyword)
- Numbers can be objects (if defined with the **new** keyword)
- Strings can be objects (if defined with the **new** keyword)
- Dates are always objects
- Maths are always objects
- Regular expressions are always objects
- Arrays are always objects
- Functions are always objects
- Objects are always objects

All JavaScript values, except primitives, are objects.

https://www.w3schools.com/js/js_object_definition.asp

JavaScript defines 5 types of primitive data types:

- **string**
- **number**
- **boolean**
- **null**
- **undefined**

JS OBJECT

Name: Bart
Last Name: Simpson
Age: 10

JS OBJECT

Name: Bart
Last Name: Simpson
Age: 10

```
var person  = {
        "name":"Bart",
        "lastName":"Simpson",
        "age": 10

}
```

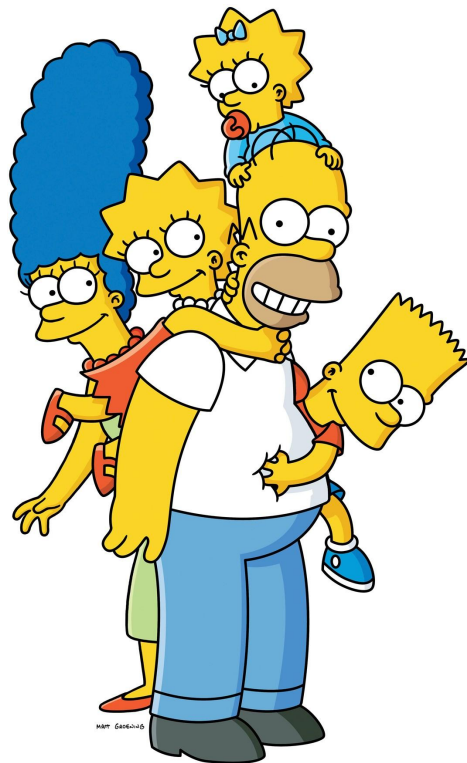https://www.w3schools.com/js/js_objects.asp

JS OBJECTS

Name: Marge
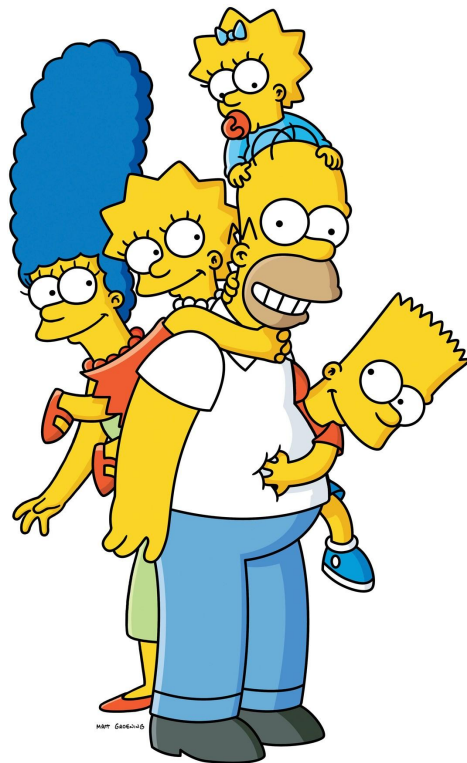Last Name:
Simpson Age: 36

Name: Lisa
Last Name:
Simpson Age: 8

Name: Bart
Last Name:
Simpson Age: 10

Name: Maggie
Last Name:
Simpson Age: 1

https://www.w3schools.com/js/js_objects.asp

JS OBJECTS

Name: Marge
Last Name:
Simpson Age: 36

Name: Lisa
Last Name:
Simpson Age: 8

Name: Bart
Last Name:
Simpson Age: 10

Name: Maggie
Last Name:
Simpson Age: 1

https://www.w3schools.com/js/js_objects.asp

```
var family = {"simpsons":[
{
    "name":"Homer",
    "lastName":"Simpson",
    "age": 39
},
{
    "name":"Marge",
    "lastName":"Simpson",
    "age": 36
},
{
    "name":"Bart",
    "lastName":"Simpson",
    "age": 10
},
{
    "name":"Lisa",
    "lastName":"Simpson",
    "age": 8
},
{
    "name":"Maggie",
    "lastName":"Simpson",
    "age": 1
}]}
```

JSON

JSON

JavaScript Object Notation

JSON is a lightweight data-interchange format. It is easy for humans to read and write.

* The JSON syntax is derived from JavaScript object notation syntax, but the JSON format is text only. Code for reading and generating JSON data can be written in any programming language.

https://www.json.org/

Handlebars

Handlebars.js

Written in JavaScript, Handlebars.js is a compiler that takes any HTML
and Handlebars expression and compiles them to
a JavaScript function. This derived JavaScript function then takes one
parameter, an object—your data—and it returns a string with the HTML and
the object properties' values inserted into the HTML.

Allows you to build semantic templates easier

https://handlebarsjs.com/

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Allows you to build semantic templates easier

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Handlebars.js

Installation

DOWNLOAD

Or

```
<script
src="https://cdnjs.cloudflare.com/ajax/libs/handlebars.js/4.3.1/
handlebars.min.js"></script>
```

https://handlebarsjs.com/

Handlebars.js

HTML

```
<script id="entry-template" type="text/x-handlebars-template">

Your template goes here!

</script>
```

Handlebars.js

JS: Compile Template

```
var source     = document.getElementById("entry-template").innerHTML; var template =
Handlebars.compile(source);
```

JS: Execute the template

```
var context = {title: "My New Post", body: "This is my first post!"};
var html    = template(context);
```

Let's Code!

HW

1. Create a dataset for your website and store it on a JSON file.

2. Append the data to your HTML

Bonus:

3. Pull the data and display it on your web application using handlebars.