CS7025 Programming for Digital Media

Lesson 6 – JavaScript Objects

JavaScript Objects

```
{
    key: value[,
    key: value,
    …
    key: value]
}
```

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JavaScript Objects

JavaScript Object values can hold any valid JavaScript structure

```
const STUDENT = {
    id: 12345,
    firstName: "Christiane",
    lastName: "Castillo",
    age: calc(20,5)
}

function calc(a, b){ return a + b; }
```

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JavaScript Objects

```
const STUDENT = {
    id: 12345,
    firstName: "Christiane",
}
```

There are 2 ways to call the value of a key in an object

```
STUDENT["firstName"] // returns "Christiane"
STUDENT.firstName // returns "Christiane"
```

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JSON

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JSON

JavaScript Object Notation

Similar to objects, but not the same

Uses key:value pairs, but the key must be surrounded by quotes

```
{
    "name": "Christiane",
    "age": 64
}
```

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JSON

JSON is purely a string with a specified data format — it contains only properties, no methods.

JSON requires double quotes to be used around strings and property names. Single quotes are not valid other than surrounding the entire JSON string.

JSON values can only be of the following data types:

- strings
- numbers
- objects (JSON object)
- arrays
- Boolean
- null

https://www.json.org/json-en.html

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JSON vs JavaScript Objects

JSON

- key must be in double quotes
- JSON can't contain functions
- JSON can be used and created by other programming languages

- use `JSON.parse()` to convert it to a JavaScript Object

JavaScript Objects

- No quotes needed for key
- JavaScript Objects can contain functions
- JavaScript Objects can only be used in JavaScript

- use `JSON.stringify()` to convert it to JSON

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Try it yourself

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Thank You

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