

# JSON

JavaScript Object Notation

# Overview

Sometimes servers (i.e. computers with server software) need to exchange information with each other or pass data back and/or forth to clients (e.g. a browser, a Web app).

It's super useful if that data is in the same general format...

# What is JSON?

- An open standard format to transmit data objects
- Uses human-readable text
- Consists of key-value pairs (e.g. "name": "Clarence")

# JSON

```
{  
  "id": 2,  
  "firstName": "Maria",  
  "lastName": "Sharapov",  
  "photo": "1363603040.jpg"  
}
```

# XML

```
<employee>  
  <id>2</id>  
  <firstName>Maria</firstName>  
  <lastName>Sharapov</lastName>  
  <photo>1363603040.jpg</photo>  
</employee>
```

# Remember: JSON is just a string

- JSON strings can be parsed to JavaScript objects
- JSON objects can be stringified to JSON strings

# JSON to JavaScript Object

```
var json = '{“firstName”:“Antoinette”,“lastName”:“Smith”}';
```

```
// convert to object
```

```
var obj = JSON.parse(json);
```

```
// convert back to json
```

```
var backToJson = JSON.stringify(obj);
```

# Quick Assignment

1. Create a file named <yourFirstName>.json (e.g. my file would be antoinette.json)
2. Inside of that file create a JSON string that describes yourself. Include
  - a. firstName
  - b. lastName
  - c. favoriteFoods (an array)
  - d. hotLineBling (a boolean)
  - e. favoriteMovies (an array of objects, each object contains (i) movieName, (ii) releaseYear)
3. Run it through a JSON validator (e.g. <http://jsonlint.com/>) to ensure it is well-formed
4. Email the file to antoinette@primeacademy.io