JSON 개요

2016년도 2학기 2학년 방과후학교

JSON 개요

- http://www.json.org/json-ko.html
- http://www.w3schools.com/json

JSON: **J**ava**S**cript **O**bject **N**otation.

JSON is a syntax for storing and exchanging data.

JSON is an easier-to-use alternative to XML.

XML vs JSON

XML Example

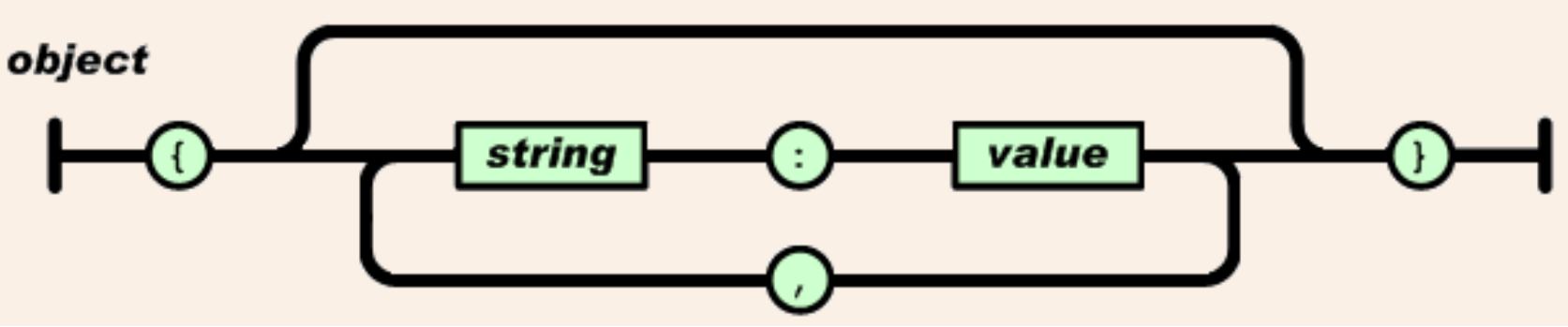
```xml
<employees>
    <employee>
        <firstName>John</firstName> <lastName>Doe</lastName>
    </employee>
    <employee>
        <firstName>Anna</firstName> <lastName>Smith</lastName>
    </employee>
    <employee>
        <firstName>Peter</firstName> <lastName>Jones</lastName>
    </employee>
</employees>
```

JSON Example

```json
{"employees":[
    {"firstName":"John", "lastName":"Doe"},
    {"firstName":"Anna", "lastName":"Smith"},
    {"firstName":"Peter", "lastName":"Jones"}
]}
```

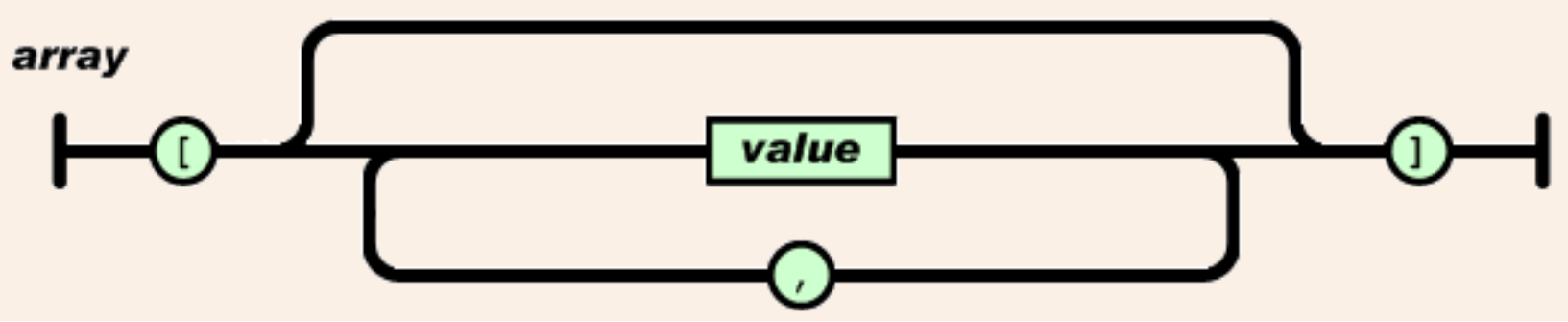
JSON Object

- An object is an unordered set of name/value pairs.
- An object begins with { (left brace) and ends with } (right brace).
- Each name is followed by : (colon) and the name/value pairs are separated by , (comma).



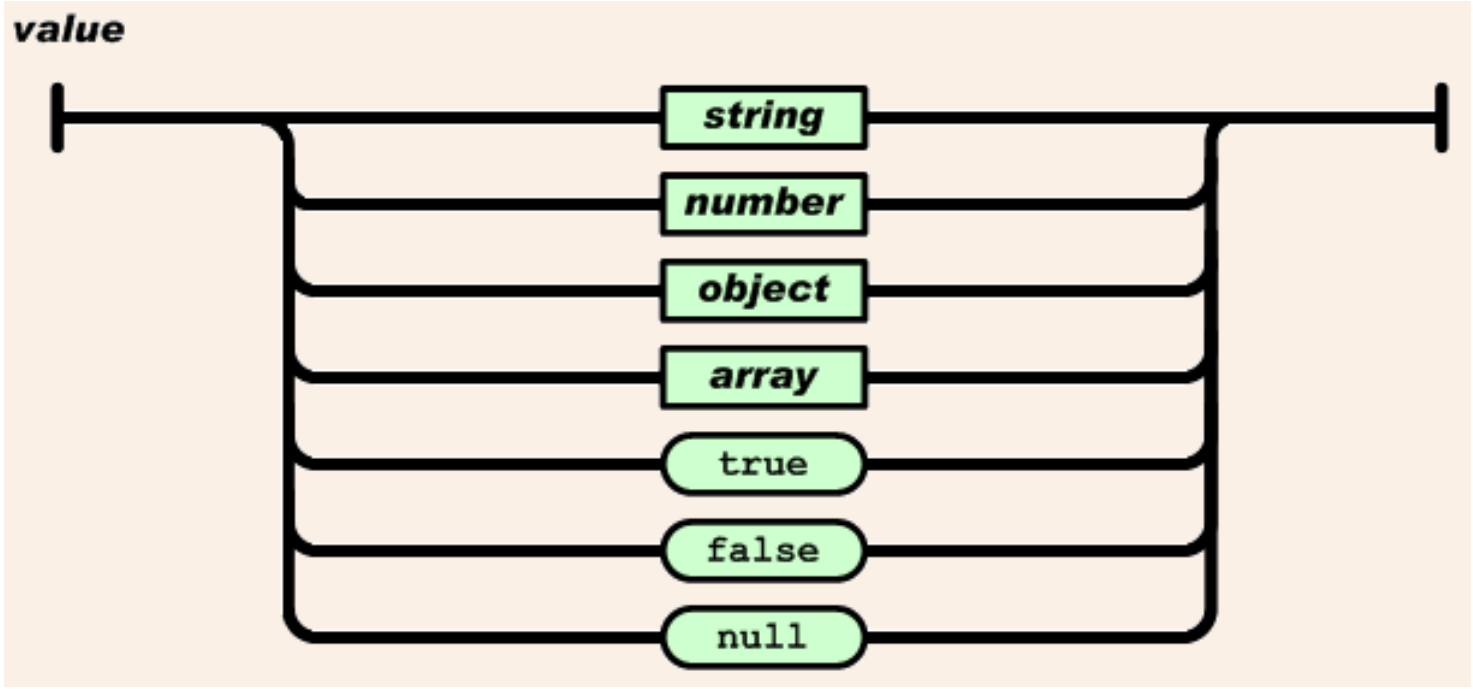
JSON Array

- An array is an ordered collection of values.
- An array begins with [(left bracket) and ends with] (right bracket).
- Values are separated by , (comma).



JSON Value

- A value can be a string in double quotes, or a number, or true or false or null, or an object or an array.
- These structures can be nested.



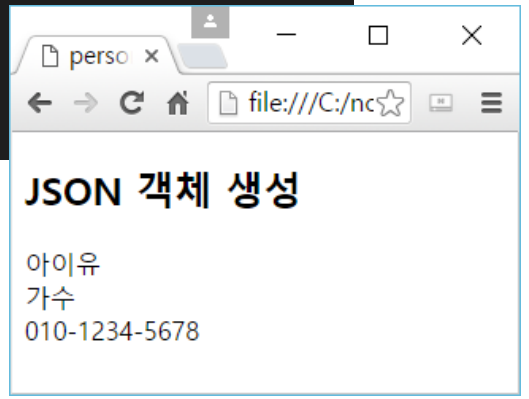
JSON 개요

- JSON 객체 생성

person.html

```
<!DOCTYPE html>
<html>
<body>
<h2>JSON 객체 생성</h2>
<p id="person"></p>
<script>
var obj = {"name":"아이유","job":"가수","phone":"010-1234-5678"};

document.getElementById("person").innerHTML =
obj.name + "<br>" + obj.job + "<br>" + obj.phone;
</script>
</body>
</html>
```



JSON 문법

- Data is in name/value pairs
- Data is separated by commas
- Curly braces hold objects
- Square brackets hold arrays

```
{"name":"아이유","job":"가수","phone":"010-1234-5678"}
```

JSON values can be:

- A number (integer or floating point)
- A string (in double quotes)
- A Boolean (true or false)
- An array (in square brackets)
- An object (in curly braces)
- null

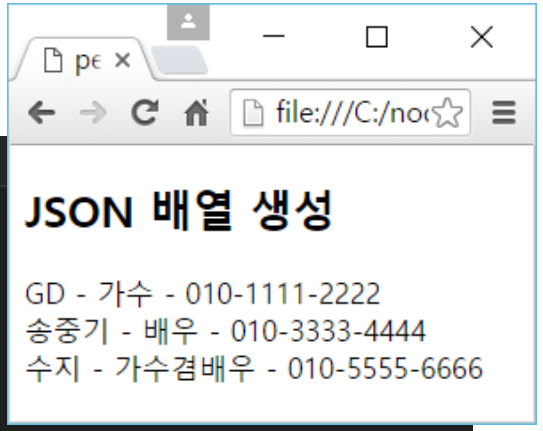
JSON 배열

- JSON 배열 생성

people.html

```
<!DOCTYPE html>
<html>
<body>
<h2>JSON 배열 생성</h2>
<p id="person"></p>
<script>
var arr = [
    {"name":"GD", "job":"가수","phone":"010-1111-2222"},
    {"name":"송중기", "job":"배우","phone":"010-3333-4444"},
    {"name":"수지","job":"가수겸배우","phone":"010-5555-6666"}
];

var result = '';
for(var i = 0; i < arr.length; i++) {
    result += arr[i].name + " - " + arr[i].job + " - " + arr[i].phone + "<br>"
}
document.getElementById("person").innerHTML = result;
</script>
</body>
</html>
```

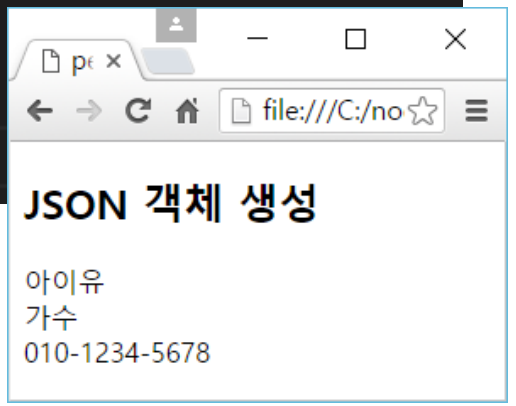


JSON 객체 변환

- var obj = JSON.parse(text); // String 값을 JSON Object로 변환

person2.html

```
<!DOCTYPE html>
<html>
<body>
<h2>JSON 객체 생성</h2>
<p id="person"></p>
<script>
var text = '{"name":"아이유","job":"가수","phone":"010-1234-5678"}';
var obj = JSON.parse(text);
document.getElementById("person").innerHTML =
obj.name + "<br>" + obj.job + "<br>" + obj.phone;
</script>
</body>
</html>
```



JSON 실습

customer.html

```
<!DOCTYPE html>
<html>
<body>
<h1>Customers</h1>
<div id="result"></div>
<script>
var xmlhttp = new XMLHttpRequest();
var url = "http://www.w3schools.com/website/customers_mysql.php";

xmlhttp.onreadystatechange=function() {
    if (xmlhttp.readyState == 4 && xmlhttp.status == 200) {
        myFunction(xmlhttp.responseText);
    }
}
xmlhttp.open("GET", url, true);
xmlhttp.send();

function myFunction(response) {
    // 여기에 코드 작성
}
</script>

</body>
</html>
```