

# JavaScript Beginner's Course Part 4

jan.schulz@devugees.org

# Agenda

1. JSON
2. Session Storage
3. Local Storage
4. AJAX

# Before we start ...

- Object iteration:

```
for(key in Obj) {
```

```
    ...
```

```
}
```

# 1. JSON

- JSON = JavaScript Object Notation
- Data format for interchanging objects accross multiple system

```
person = {  
    'firstname': 'Jan',  
    'age': 31 }  
}
```

or

```
[ 1, 3, 4, 9, 10 ]
```

# 1. JSON

- JSON = JavaScript Object Notation
- Data format for interchanging objects accross multiple system

```
person = {  
    "firstname" : "Jan",  
    "age" : 31 }  
}
```

or

```
[ 1, 3, 4, 9, 10 ]
```

- JSON keys are always strings!

# 1. JSON

- Convert JavaScript Object to JSON String  
`var x = JSON.stringify( OBJ );`
- Parse JSON String to JavaScript Object  
`var y = JSON.parse( str );`

# 1. JSON

- Great tool to view JSON Data:  
<http://jsonviewer.stack.hu>

## 2. Session Storage

### **window.sessionStorage**

- An object which has key value relationships
  - **string only**, no objects
- Until the browser is closed, data can be saved in the sessionStorage object
- Client-side storage, 5m size
- Methods:
  - .setItem( key, value)**
  - .getItem( key )**
  - .removeItem( key )**
  - .clear( )**



# 3. Local Storage

## **window.localStorage**

= Same as sessionStorage

**EXCEPT:** Data is saved until user explicitly removes it, no pre-defined expiration date and 10m size

# 4. AJAX

- Asynchronous JavaScript XML Requests
  - HTTP-Requests **that not**
    - Include Source Files like CSS, JS etc.
    - Include Initial page load like Hitting F5 + Reloading the page
  - Do not block other JavaScript code

# 4. AJAX

- Asynchronous JavaScript XML Requests
  - HTTP-Requests **that not**
    - Include Source Files like CSS, JS etc.
    - Initially load the page like Hitting F5 + Reloading the page
  - In total, 17 types of HTTP-Requests
    - GET – read a resource
    - POST – create a new resource
    - PUT – change an existing resource
    - DELETE – delete an existing resource
    - ...

## 4. AJAX

- `window.XMLHttpRequest`
- Methods:
  - `open()`: defines the HTTP method and URL
  - `onload()`: defines an event that handles the response data
  - `send()`: actually sends the request to the server