

Advanced Javascript

Day 5 - JSON, LocalStorage

JSON



JavaScript Object Notation (JSON) is a representation of structured data based on JavaScript object syntax.

- Data is sent and received on Internet in JSON (mostly).
- It is based on Javascript object literals
- used with network requests (AJAX etc.)

Why JSON?

JSON is one of the most commonly used data formats to transmit data in web applications.

Moreover, its not just JavaScript that supports JSON, many commonly used languages on the Web including PHP, Python, C/C++, Java etc., also support JSON.

Thus, JSON can be used to send data from the front-end to the back-end, and vice-versa.

Many popular databases like MongoDB, CouchDB, MySQL, Oracle and PostgreSQL also have extensive support for JSON.

Think of JSON as an universal data format on the Internet.

What does JSON look like?

```
var PlayerData = {  
    "Name": "Virat Kohli",  
    "Age": "30",  
    "Teams": ["India", "RCB"],  
    "Fav_player": {  
        "Name": "Sachin Tendulkar",  
        "Age": 40,  
        "Teams": ["India", "MI"]  
    }  
}
```

Important notes about JSON:

1. It's just a data format and does not contain any functions/methods.
2. Only double quotes are allowed
3. Even a single misplaced comma can damage the whole file.
4. Only quoted strings can be used as properties.

Conversion between JSON and Js Objects

```
var person = {  
    name : "Sidharth",  
    age : 100,  
    height: "6 Ft",  
    gender : "Male",  
    hobbies: ["Coding", "Weight Lifting", "Running", "Eating"]  
}
```

```
var json = JSON.stringify(person)
```

```
console.log(json)
```

```
var regularObject = JSON.parse(json)
```

```
console.log(regularObject)
```

JSON will become more relevant when we learn about API's and retrieving data from them.

LocalStorage



LocalStorage is a functionality provided by browser to store the data locally.

LocalStorage has no expiry date. Clear it manually or delete the browser!

LocalStorage is the best way to store data if you don't have a database for your app yet.

How to use LocalStorage?!

```
localStorage.setItem('myCat', 'Tom');
```

```
var cat = localStorage.getItem('myCat');
```

```
localStorage.removeItem('myCat');
```

```
localStorage.clear();
```

```
var loadVal = JSON.parse(localStorage.getItem('name'))
```

```
localStorage.setItem('name', JSON.stringify(users))
```

Types of Storage in Browser

Cookies vs. Local Storage vs. Session Storage

	Cookies	Local Storage	Session Storage
Capacity	4kb	10mb	5mb
Browsers	HTML4 / HTML 5	HTML 5	HTML 5
Accessible from	Any window	Any window	Same tab
Expires	Manually set	Never	On tab close
Storage Location	Browser and server	Browser only	Browser only
Sent with requests	Yes	No	No