LocalStorage

JAVASCRIPT

LocalStorage

HTML5 specification introduce the localStorage as a way to store data with no expiration date in the web browsers.

- In another words, the data stored in the browsers will persist even after you close the browser windows.

- The data stored in the localStorage is bound to an origin. it means that the localStorage is unique per "protocol://host:port".

- if you wish to store objects, lists, or arrays, you must convert them into a string using JSON.stringify().

Accessing LocalStorage

You can access the localStorage via the property of the window object.

Here's an example:

```
window.localStorage
```

When you type Upper Code in the console. you'll see the following object:

```
Storage {length: 0}
```

LocalStorage Methods

localStorage provides some methods and properties.

setItem(key, value)

- This method is used to store a name-value pair in the localStorage.

- As mentioned before, we must stringify objects before we store them in the local storage.

```
localStorage.setItem("theme","Dark");

const Student = {
  name:"Asjad Raza",
  grade: 78
}

localStorage.setItem('student', JSON.stringify(Student));
```

getItem(key)

- This method is used to access or retrieve data from the localStorage. A key is used as a parameter.

- You should convert it to an object using JSON.parse() to use it in your code

```
const student = localStorage.getItem('student');
// '{"name":"Asjad Raza","grade":78}'

const pStudent = JSON.parse(localStorage.getItem('student'))
// {name: 'Asjad Raza', grade: 78}
```

removeItem(key)

- This method is used to delete an item from localStorage. A key is used as a parameter.

```
localStorage.removeItem('theme')
```

key(index)

- This method retrieves a value from a specific location. The index can be passed as a parameter.

```javascript
let answer = localStorage.key(2);
// this statement will retrieve the value of the third item
// from the localStorage.
```

clear()

- This method is used to clear all values stored in local storage.

```javascript
localStorage.clear()
```

length

- This property is used to get the number of name-value pairs from localStorage.

```javascript
console.log(localStorage.length) // 3
```

Loop Over Keys

The following stores three name-value pairs to the localStorage:

```javascript
localStorage.setItem('theme','light');
localStorage.setItem('backgroundColor','white');
localStorage.setItem('color','#111');
```

To iterate over name-value pairs stored in the localStorage, you use the Object.keys() method with for...of loop:

```javascript
let keys = Object.keys(localStorage);
for(let key of keys) {
   console.log(`${key}: ${localStorage.getItem(key)}`);
}

// color: #111
// theme: light
// backgroundColor: white
```