



JavaScript 2

Lektion => 6

Utbildare: Mahmud Al Hakim

NACKADEMIN

Lektionstillfällets mål

Mål med lektionen

- **JavaScript API:er**
- Feature Detection med Modernizr
- Geolocation API
- Web Storage API
- **Projektarbete – start**
- Att läsa: sid. 410–423
- **Arbetsmetod**
 - Teori och praktik varvas under lektionen

Kort summering av föregående lektion

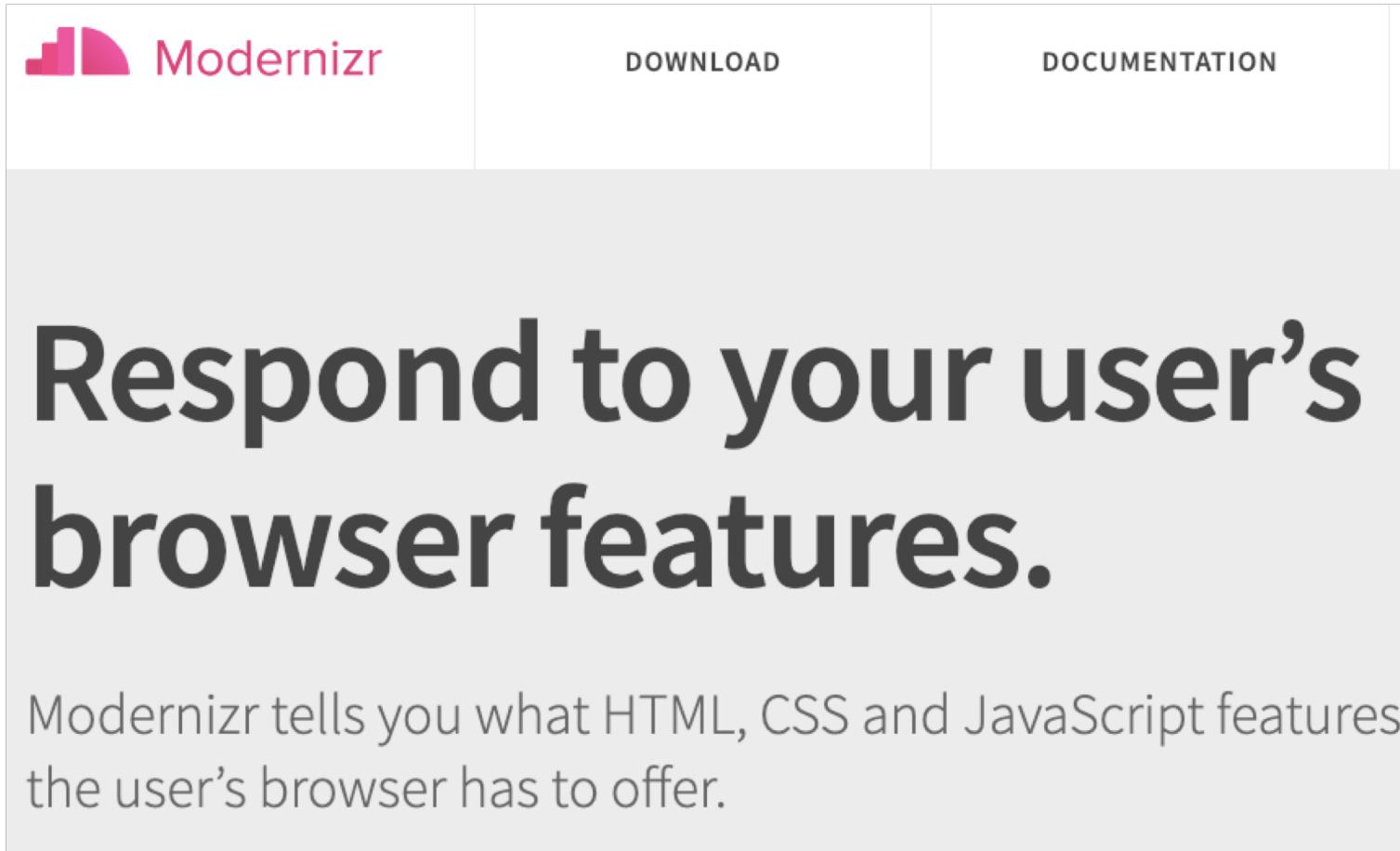
- Vi har gått igenom
 - Ajax via jQuery
 - Fetch API
 - Praktiska övningar

JavaScript API:er

- När du skriver kod för webben med JavaScript, finns det en mängd olika API:er tillgängliga.
- Här finns en lista över alla gränssnitt (det vill säga, typer av objekt) som du kan använda i samband med utvecklingen av din Web App eller webbplats.
- <https://developer.mozilla.org/en-US/docs/Web/API>

Feature Detection med Modernizr

<https://modernizr.com>

A screenshot of the Modernizr website. The header features a pink logo with three horizontal bars of increasing height followed by the word "Modernizr". Below the header are three navigation links: "DOWNLOAD" and "DOCUMENTATION" in black text, and a "MODERNIZR.JS" button in white text on a pink background. The main content area has a light gray background and features large, bold, dark gray text that reads "Respond to your user's browser features." Below this, in smaller gray text, is the description: "Modernizr tells you what HTML, CSS and JavaScript features the user's browser has to offer."

Modernizr

DOWNLOAD DOCUMENTATION MODERNIZR.JS

Respond to your user's browser features.

Modernizr tells you what HTML, CSS and JavaScript features the user's browser has to offer.

Vad är Modernizr?

- Modernizr är ett JavaScript-bibliotek.
- Modernizr är ett funktionsidentifieringsbiblioteket (Feature Detection Library).
- Modernizr är utformat för att upptäcka HTML5– och CSS3–funktioner i olika webbläsare.
- Med Modernizr kan du lätt skapa webbplatser där du drar nytta av HTML5 & CSS3 men fortfarande stödja äldre webbläsare.
- Den första versionen lanserade av Faruk Ateş juli 2009



Ladda ner Modernizr

<https://modernizr.com/download>

The screenshot shows the Modernizr download page. On the left, there's a sidebar with a red 'X' icon and the text 'Geolocation API'. The main content area has a dark header bar with the word 'BUILD' in white. Below it, the title 'Geolocation API' is displayed in large, bold, black font. A horizontal line separates the title from the 'Description' section, which contains the text: 'Detects support for the Geolocation API for users to provide their location to web applications.'

X Geolocation API

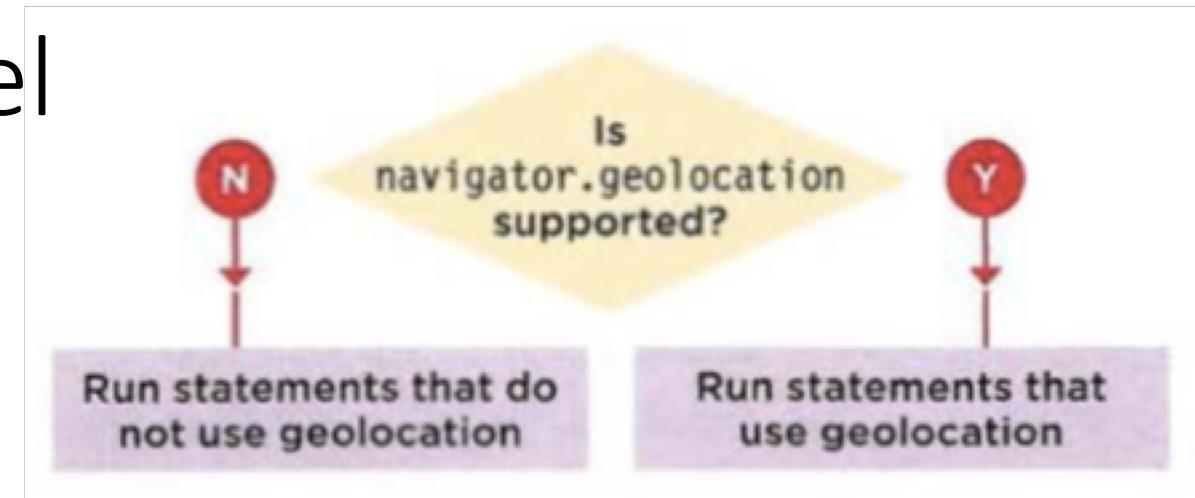
BUILD

Geolocation API

Description

Detects support for the Geolocation API for users to provide their location to web applications.

Modernizr – Exempel



```
if ( Modernizr.geolocation ) {  
    alert( 'Your browser supports geolocation.' );  
} else {  
    alert('Your browser does not support geolocation.' );  
}
```



Geolocation API

Geolocation är ett API som används för hitta användarens geografisk position

Note: Geolocation is most accurate for devices with GPS, like smartphone.

https://www.w3schools.com/html/html5_geolocation.asp

Geolocation – Exempel från W3Schools

https://www.w3schools.com/html/html5_geolocation.asp

```
var x = document.getElementById("demo");
if (navigator.geolocation) {
  navigator.geolocation.getCurrentPosition(showPosition);
} else {
  x.innerHTML = "Geolocation is not supported by this browser.";
}

function showPosition(position) {
  x.innerHTML = "Latitude: " + position.coords.latitude +
    "<br>Longitude: " + position.coords.longitude;
}
```

Geolocation och Modernizr

```
if ( Modernizr.geolocation ) {  
    navigator.geolocation.getCurrentPosition(showPosition);  
} else {  
    alert('Your browser does not support geolocation.' );  
}
```

Web Storage API

- Web Storage API tillhandahåller mekanismer för att lagra data i en webbläsaren.
- Data lagras som nyckel-värde-par.
- Det finns två mekanismer i Web Storage API
 1. **sessionStorage**
Data är tillgänglig så länge webbläsaren är öppen.
 2. **localStorage**
Data lagras även när webbläsaren stängs och öppnas igen.

Web Storage API – localStorage demo

<https://mdn.github.io/dom-examples/web-storage>

WEB STORAGE

This example is designed to demonstrate usage of the [W3C Web Storage API](#). It should work as far back as IE8. Choose custom background colours, logos and fonts from the below drop down menus, then try closing and reopening the page – you will find that your choices are remembered, as they are stored using Web Storage. You can also visit the [storage event output](#) (opens in new tab). Open this, change some values in the index page, then look at the events page – you'll see the storage changes reported.

Choose background color:

Choose font style:

Choose image: 

LocalStorage i Chrome – Fliken Application

The screenshot shows the Chrome DevTools interface with the 'Application' tab selected. On the left, the 'Storage' section is expanded, showing 'LocalStorage' and 'SessionStorage' for the domain <https://mdn.github.io>. The 'LocalStorage' entry is highlighted with a blue background. On the right, a table displays the key-value pairs stored in Local Storage:

Key	Value
bgcolor	ADFFB8
font	'Ubuntu Mono'
image	images/tortoise.png

Spara data i localStorage

```
localStorage.setItem("name", "Mahmud");
```

The screenshot shows the Chrome DevTools interface with the Application tab selected. On the left, there's a sidebar with icons for Elements, Console, Sources, Network, and Application. Below that, under Storage, is a section for Local Storage. A table on the right lists the key-value pairs stored in localStorage.

Key	Value
name	Mahmud

Hämta data från localStorage

```
let name = localStorage.getItem("name");  
console.log(name);
```

Visa alla nycklar

```
for (var i = 0; i < localStorage.length; i++) {  
    console.log("Key: " + localStorage.key(i));  
}
```

Övningar

1. Skapa en HTML-lista som visar alla värden (values) som finns i localStorage.
2. Skapa en HTML-tabell som visar alla nycklar och värden som finns i localStorage.

Ta bort från localStorage

```
localStorage.removeItem("name");
```

```
// Test
name = localStorage.getItem("name");
console.log(name); // null
```

Rensa localStorage

```
localStorage.setItem("name", "Mahmud");  
console.log(localStorage);
```

```
localStorage.clear();  
console.log(localStorage);
```

Spara en array i localStorage

```
let myArray = ['A', 'B', 'C'];
```

```
localStorage.setItem("myArray", JSON.stringify(myArray));
```

```
getArray = JSON.parse(localStorage.getItem("myArray"));
```

Spara ett objekt i localStorage

```
let myObj = {  
    first: 'A',  
    second: 'B',  
    third: 'C'  
};  
  
localStorage.setItem("myObj", JSON.stringify(myObj));  
  
getObj = JSON.parse(localStorage.getItem("myObj"));
```

Local Storage – Övning 1

Local Storage Demo

Ange ditt namn

Välkommen Mahmud

Local Storage – Övning 2

Ange dina favoritspråk

Lägg till

- HTML
- CSS
- JavaScript

Övning 3 – Skapa följande webbsida

<https://mdn.github.io/dom-examples/web-storage>

WEB STORAGE

This example is designed to demonstrate usage of the [W3C Web Storage API](#). It should work as far back as IE8. Choose custom background colours, logos and fonts from the below drop down menus, then try closing and reopening the page – you will find that your choices are remembered, as they are stored using Web Storage. You can also visit the [storage event output](#) (opens in new tab). Open this, change some values in the index page, then look at the events page – you'll see the storage changes reported.

Choose background color:

Choose font style:

Choose image:



Tips – Bra att läsa

How to Use Local Storage with JavaScript

<https://www.taniarascia.com/how-to-use-local-storage-with-javascript>

New Tab App

New

Items

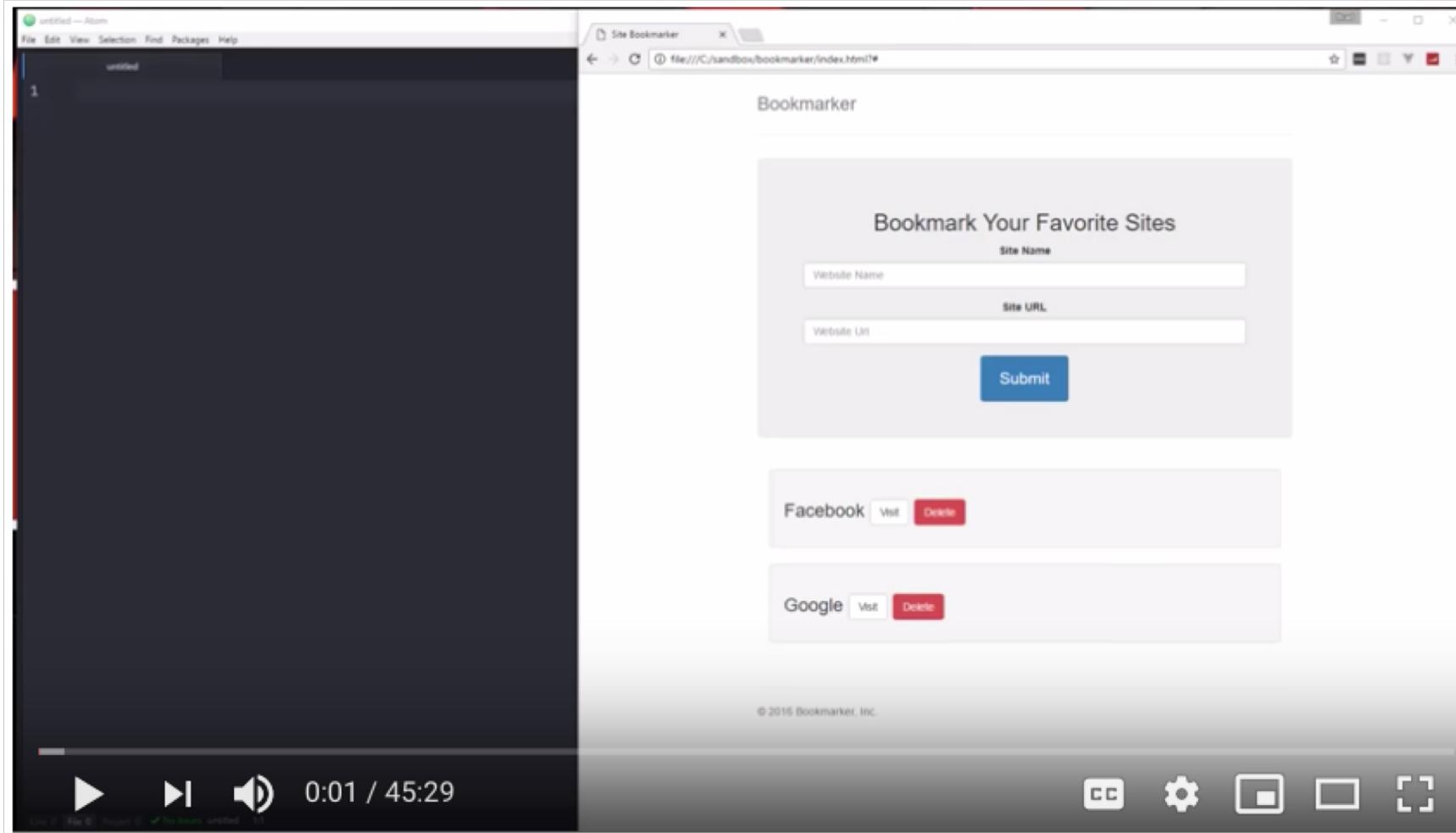
- Demo 1
- Demo 2

Clear All

Tips – Bra video från Brad Traversy om localStorage

Learn JavaScript By Building A Bookmarker Application

<https://youtu.be/DIVfDZZeGxM>



Summering av dagens lektion

- JavaScript API:er
- Feature Detection med Modernizr
- Geolocation API
- Web Storage API
- **Projektarbete – start**
- Att läsa: sid. 410–423
- Reflektioner kring dagens lektion?

Framåtblick inför nästa lektion

- Under nästa lektion kommer vi att jobba med
- Introduktion till AngularJS