Pemrograman Web

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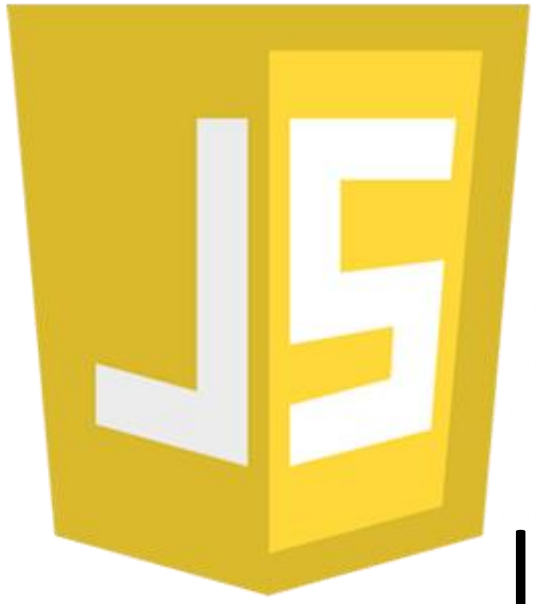

JavaScript - Array & Object

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JavaScript Array

- Array didefinisikan

```
var array-name = [item1, item2, ...];
```

```
var cars = ["Saab", "Volvo", "BMW"];
```

```
var points = [];
```

- Akses Data Array

```
var name = cars[0];
```

```
cars[0] = "Opel";
```

JavaScript Array

- You can have different objects in one array
- Array properties : length
- Array methods: sort()
- Adding array

```
var x = cars.length;
cars
var y = cars.sort();
```

```
var fruits = ["Banana", "Orange", "Apple", "Mango"];
fruits.push("Lemon");                 // adds a new element (Lemon) to fruits
```

```
var fruits = ["Banana", "Orange", "Apple", "Mango"];
fruits[fruits.length] = "Lemon";      // adds a new element (Lemon) to fruits
```

Loop

- For Loop

```
for (statement 1; statement 2; statement 3) {
    code block to be executed
}
```

```
<script>
    let i;
    for (i = 1; i < 10; i++) {
        document.write("siswa " + i + "<br/>");
    }
</script>
```

- For in loop

```
<script>
    let keranjang = ["mangga", "jambu", "durian", "sirsak"];
    document.write("jumlah buah:" + keranjang.length);
    let x;
    for (x in keranjang) {
        console.log("buah ke " + x + " adalah " + keranjang[x]);
        document.write("<br/>index " + x + " buahnya " + keranjang[x]);
    }
</script>
```

JavaScript Object

- How to create object

```
var person = {firstName:"John", lastName:"Doe", age:50, eyeColor:"blue"};
```

```
var person = {
    firstName:"John",
    lastName:"Doe",
    age:50,
    eyeColor:"blue"
};
```

```
var person = {
    firstName: "John",
    lastName : "Doe",
    id       : 5566,
    fullName : function() {
       return this.firstName + " " + this.lastName;
    }
};
```

JavaScript Object

- How to access object properties

```
objectName.propertyName
```

```
objectName["propertyName"]
```

- How to access object methods

```
objectName.methodName()
```

```
<script>
    let siswa1 = {
        nama:"Ahmad Faiz",
        umur:20,
        berat:45,
        cetak : function(){
            return this.nama + " usianya " + this.umur;
        }
    }
    document.write(siswa1.nama);
    document.write("<br/>" + siswa1.cetak());
    console.log(siswa1.cetak());
</script>
```

Conditional

- If else

```
if (condition1) {
    block of code to be executed if condition1 is true
} else if (condition2) {
    block of code to be executed if the condition1 is false and condition2 is true
} else {
    block of code to be executed if the condition1 is false and condition2 is false
}
```

```
<script>
    let siswa1 = {
        nama:"Ahmad Faiz",
        umur:20,
        berat:45,
        cetak : function(){
            return this.nama + " usianya " + this.umur;
        }
    }
    let status_berat;
    if(siswa1.berat > 80){
        status_berat = " Gemuk";
    }else if(siswa1.berat < 25){
        status_berat = " Kurus";
    }else{
        status_berat = " Berat Ideal";
    }
    console.log(siswa1.nama + status_berat);
</script>
```

Switch Case

- Switch case

```
switch(expression) {
    case n:
        code block
        break;
    case n:
        code block
        break;
    default:
        default code block
}
```

```
switch (new Date().getDay()) {
  case 0:
    day = "Sunday";
    break;
  case 1:
    day = "Monday";
    break;
  case 2:
     day = "Tuesday";
    break;
  case 3:
    day = "Wednesday";
    break;
  case 4:
    day = "Thursday";
    break;
  case 5:
    day = "Friday";
    break;
  case 6:
    day = "Saturday";
}
 console.log("today is - " + day);
```

JavaScript While Loop

- While loop

```
while (condition) {
    code block to be executed
}
```

```
<script>
    let i = 0;
    while(i < 10){
        console.log("bilangan " + i);
        i++;
    }
</script>
```

- Do while loop

```
do {
    code block to be executed
}
while (condition);
```

```
<script>
    let i = 0;
    do{
        console.log("bilangan " + i);
        i++;
    }while(i < 10)
</script>
```

JavaScript Function

- Function Syntax

```
function name(parameter1, parameter2, parameter3) {
    code to be executed
}
```

```
1. …
2. <script type="text/javascript">
3.    function salam()
4.    {
5.       alert("Assalamualaikum Saudaraku !");
6.    }
7.    function salamKenal(teman){
8.       alert("Apa kabar " + teman);
9.    }
10.  function jumlah(a,b){
11.     let c = a + b;
12.     return c;
13.  }
14.</script>
…
```

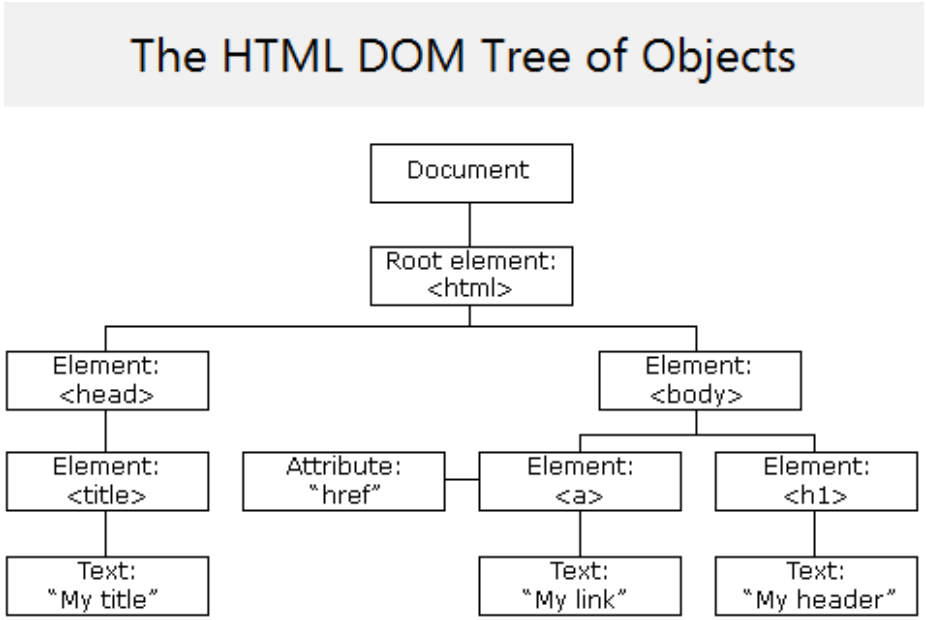
JavaSCript Event

Event Handlers	Deskripsi	Objek
onClick	Reaksi terhadap aksi meng-click-mouse pada suatu objek	checkboxes, links, radio buttons, reset buttons, dan submit buttons
onMouseOver	Reaksi jika suatu cursor atau mousepointer yang menunjuk ke suatu objek	links
onMouseOut	Reaksi jika suatu cursor atau mousepointer yang meninggalkan suatu objek	links
onLoad	Reaksi jika suatu objek selesai di-load.	images, windows
onUnload	Reaksi jika suatu dokumen ditutup/diakhiri.	windows
onAbort	Reaksi jika suatu objek diberhentikan dari proses loading	images
onChange	Reaksi jika suatu nilai(value) dari objek dimodifikasi	file uploads, select objects, text boxes, textarea
onSelect	Reaksi jika sutau teks dipilih dari objek text box atau textarea	text boxs, text areas
onError	Reaksi jika terjadi error JavaScript	images, windows
onReset	Reaksi jika suatu tombol reset dalam form ditekan	forms
onSubmit	Reaksi jika suatu tombol button dalam form ditekan	forms

```
<button onclick="displayDate()">The time is?</button>
```

HTML DOM

- Dengan HTML DOM , JavaSCript dapat mengakses dan mengubah semua elemen dalam dokumen HTML
- http://www.w3schools.com/jsref/default.asp



HTML DOM

- Finding element
  - Finding HTML elements by id
  - Finding HTML elements by tag name
  - Finding HTML elements by class name
  - Finding HTML elements by CSS selectors
  - Finding HTML elements by HTML object collections
- Changing element

Method	Description
document.getElementById()	Find an element by element id
document.getElementsByTagName()	Find elements by tag name
document.getElementsByClassName()	Find elements by class name

Method	Description
element.innerHTML=	Change the inner HTML of an element
element.attribute=	Change the attribute of an HTML element
element.setAttribute*(attribute,value)*	Change the attribute of an HTML element
element.style.*property*=	Change the style of an HTML element

HTML DOM

- Create element

Method	Description
document.createElement()	Create an HTML element
document.removeChild()	Remove an HTML element
document.appendChild()	Add an HTML element
document.replaceChild()	Replace an HTML element
document.write(*text*)	Write into the HTML output stream

- Changing style

```
document.getElementById(id).style.property=new style
```

Referensi

- This slide content is from http://www.w3schools.com/js
- Slide perkuliahan web UI