



Information Technology Program
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Web Programming:

Introduction to JavaScript

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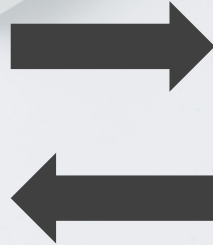




What JS is



Client Side



Server Side



What can **JavaScript** do?



1. Change HTML Content

```
document.getElementById("demo").innerHTML = "Hello JavaScript";
```

2. Change HTML Attribute Values

```
document.getElementById('myImage').src='pic_bulbon.gif'
```

See https://www.w3schools.com/js/js_intro.asp for more examples.



What can **JavaScript** do?



3. Change HTML Styles (CSS)

```
document.getElementById("demo").style.fontSize = "35px";
```

4. Hide/Show HTML Elements

```
document.getElementById("demo").style.display = "block";
```

See https://www.w3schools.com/js/js_intro.asp for more examples.



JavaScript create **Dynamic HTML**



1. can change all the **HTML elements** in the page
2. can change all the **HTML attributes** in the page
3. can change all the **CSS styles** in the page
4. can **remove** existing HTML elements and attributes
5. can **add new** HTML elements and attributes
6. can react to all existing **HTML events** in the page
7. can **create new HTML events** in the page





What is JS?

“Java Script is a scripting language used for **dynamically updating the content** of web to make the web pages more interactive”

```
function gantiwarna(){  
    document.getElementById("paragraf1").style =  
        "background-color: yellow";  
}  
  
function setnama(){  
    var nama = document.getElementById("nama-  
        kelompok").value;  
  
    document.getElementById("paragraf1").innerHTML  
        = "Halo "+nama;  
  
    document.getElementById("paragraf1").style =  
        "background-color: red";  
  
    var txt =  
        document.getElementById("txt").value;  
}
```



JavaScript **Display** Data



1. Writing into an HTML element, using `innerHTML`
2. Writing into the HTML output using `document.write()`
3. Writing into an alert box, using `window.alert()`
4. Writing into the browser console, using `console.log()`



HTML **DOM**: Finding Elements



Method	Description
<code>document.getElementById(<i>id</i>)</code>	Find an element by element id
<code>document.getElementsByTagName(<i>name</i>)</code>	Find elements by tag name
<code>document.getElementsByClassName(<i>name</i>)</code>	Find elements by class name



HTML **DOM**: Changing Elements



Property	Description
<code>element.innerHTML = new html content</code>	Change the inner HTML of an element
<code>element.attribute = new value</code>	Change the attribute value of an HTML element
<code>element.style.property = new style</code>	Change the style of an HTML element
<code>element.setAttribute(attribute, value)</code>	Change the attribute value of an HTML element



Common HTML Events



Event	Description
onchange	An HTML element has been changed
onclick	The user clicks an HTML element
onmouseover	The user moves the mouse over an HTML element
onmouseout	The user moves the mouse away from an HTML element
onkeydown	The user pushes a keyboard key
onload	The browser has finished loading the page



Using HTML **Events**



```
<button onclick="setNama()">Simpan</button>

<div onmouseover="gantiwarna()">
  <p>Ini adalah teks</p>
</div>
```



JS VARIABLES

```
<script>
  var car = "Fiat";
  var person = {
    firstName: "John",
    lastName: "Doe",
    age: 50,
    eyeColor: "blue"
  };
  console.log(person.lastName);
  console.log(person["lastName"]);
</script>
```





JavaScript Usage

How to attach JS code to HTML



INTERNAL SCRIPT

```
<html>
  <head>
    <script>
      function myFunction() {
        document.getElementById("demo1").
          innerHTML = "Paragraph changed.";
      }
    </script>
  </head>
  <body>
    . . .
```



EXTERNAL SCRIPT

```
<html>
  <head>
    <script src="myScript.js"></script>
  </head>
  <body>
    . . .
```



CODE EXAMPLES



```
<div id="web">
  <div id="header">
    Ini Judul Website
  </div>
  <div id="content">
    <div class="article">
      <h1>Judul 1</h1>
      <p id="p2">Hari ini kuliah Prognest</p>
      <button
        onmouseover="gantitulisan('test')">On Mouse
        Over</button>
      <button onclick="ubahwarna()">Ganti
        Warna</button>
    </div>
    <div class="article">
      <h1 id="judul2">Judul 2</h1>
      <p>Materinya CSS</p>
      <input type="text" id="nama">
      <button onclick="setnama()">Ganti
        Tulisan</button>
    </div>
  </div>
</div>
```

```
8 ▼ function ubahwarna(){
9     document.getElementById("header").style =
      "background-color: red; border: 4px solid
      black";
10    document.getElementsByClassName("article")
      [0].style = "background-color: green";
11  }
12
13 ▼ function gantitulisan(tulisan){
14    document.getElementById("p2").innerHTML =
      "Diubah menjadi "+tulisan;
15  }
16
17 ▼ function setnama(){
18    var nama =
      document.getElementById("nama").value;
19
20    document.getElementById("judul2").innerHTML
      = "Halo "+nama;
21  }
```



RESULT



Ini Judul Website

Judul 1

Hari ini kuliah Prognat

On Mouse Over

Ganti Warna

Judul 2

Materinya CSS

Ganti Tulisan

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Ini Judul Website

Judul 1

Diubah menjadi test

On Mouse Over

Ganti Warna

Halo arya

Materinya CSS

arya

Ganti Tulisan

Copyright @aryadharmadi



Discussion



Any Question?



REFERENCES

