

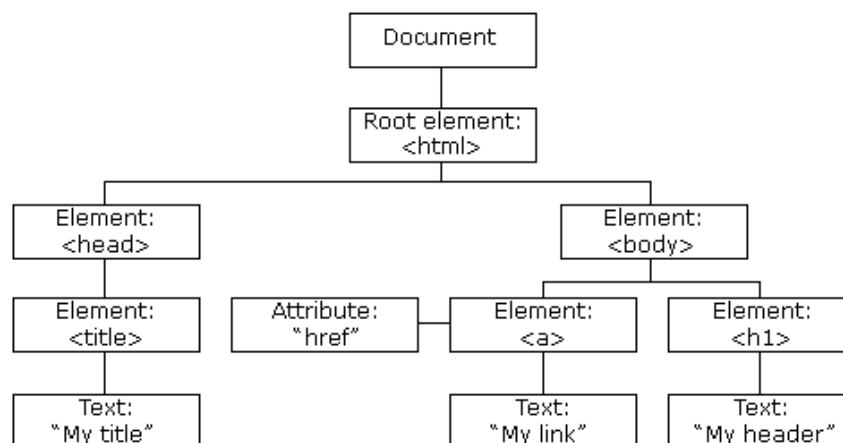
## ណែនាំអោយ DOM ក្នុង JavaScript Document Object Model

### I. ដូចម្តេចទៅដែលហៅថា DOM?

ពាក្យថា DOM គឺមកពីពាក្យថា Document Object Model ដែលមានតួនាទីសំរាប់ គេចាប់ទិន្នន័យរវាង HTML Form ឬ HTML ទៅកាន់ JavaScript និងបោះទិន្នន័យពី JavaScript ទៅ កាន់ HTML វិញ។

ខាងក្រោមគឺជាលទ្ធភាពសំខាន់ៗដែល DOM អាចជួយអ្នកបានដូចជា៖

1. JavaScript អាចធ្វើការផ្លាស់ប្តូររាល់ HTML elements ក្នុង Pages
2. JavaScript អាចធ្វើការផ្លាស់ប្តូររាល់ HTML attributes ក្នុង page
3. JavaScript អាចប្តូរ CSS styles ក្នុង pages
4. JavaScript អាច remove elements និង attributes
5. JavaScript អាចបង្កើត new HTML elements និង attributes
6. JavaScript អាចបញ្ជាជាមួយនិង events ក្នុង page
7. JavaScript អាចបង្កើត new HTML events ក្នុង page





ខាងក្រោមគឺជាប្រភេទនៃ DOM ដែលគេប្រើប្រាស់ជាញឹកញាប់៖

- Core DOM - standard model for all document types
- XML DOM - standard model for XML documents
- HTML DOM - standard model for HTML documents

#### A. DOM Programming Interface

អ្នកអាចធ្វើការបញ្ជានូវ HTML Tag ឬ សមាសធាតុផ្សេងៗរបស់ HTML តាមរយៈ ការប្រើប្រាស់នូវ JavaScript:

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```

<!DOCTYPE html>
<html>
<body>

<h2>My First Page</h2>

<p id="demo"></p>

<script>
document.getElementById("demo").innerHTML = "ETEC CENTER....!";
</script>

</body>
</html>

```

ឧទាហរណ៍២៖

```

<html>
<head>
  <title>DOM!!!</title>
</head>
<body>
  <h1 id="one">ETEC i.T Training Center...!</h1>
  <p>This is the welcome message.</p>
  <h2>Technology</h2>
  <p>This is the technology section.</p>
  <script type="text/javascript">
    var text = document.getElementById("one").innerHTML;
    alert("The first heading is " + text);
  </script>
</body>
</html>

```

លទ្ធផលទទួលបាន៖

**ETEC i.T Training Center...!**

This is the welcome message.

**Technology**

This is the technology section.



## ឧទាហរណ៍៣៖

```

<html>
<head>
  <title>DOM!!!</title>
</head>
<body>
  <h1>Welcome</h1>
  <p>This is the welcome message.</p>
  <h2>ETEC Technology</h2>
  <p id="second">This is the technology section.</p>
  <script type="text/javascript">
    var paragraphs = document.getElementsByTagName("p");
    alert("Content in the second paragraph is " + paragraphs[1].innerHTML);
    document.getElementById("second").innerHTML = "ETEC Programming with JavaScript";
  </script>
</body>
</html>

```

**Welcome**

This is the welcome message.

**ETEC Technology**

ETEC Programming with JavaScript

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## ឧទាហរណ៍៤៖

```

<html>
<head>
  <title>DOM!!!</title>
</head>
<body>
  <input type="button" id="btnClick" value="Click Me!!" />
  <div id="dis"></div>
  <script type="text/javascript">
    document.getElementById("btnClick").addEventListener("click", clicked);
    function clicked()
    {
      document.getElementById("dis").innerHTML = "<marquee>Hello, ETEC CENTER....!</marquee>";
    }
  </script>
</body>
</html>

```

Click Me!!

Hello, ETEC CENTER....!

លទ្ធផលទទួលបាន៖

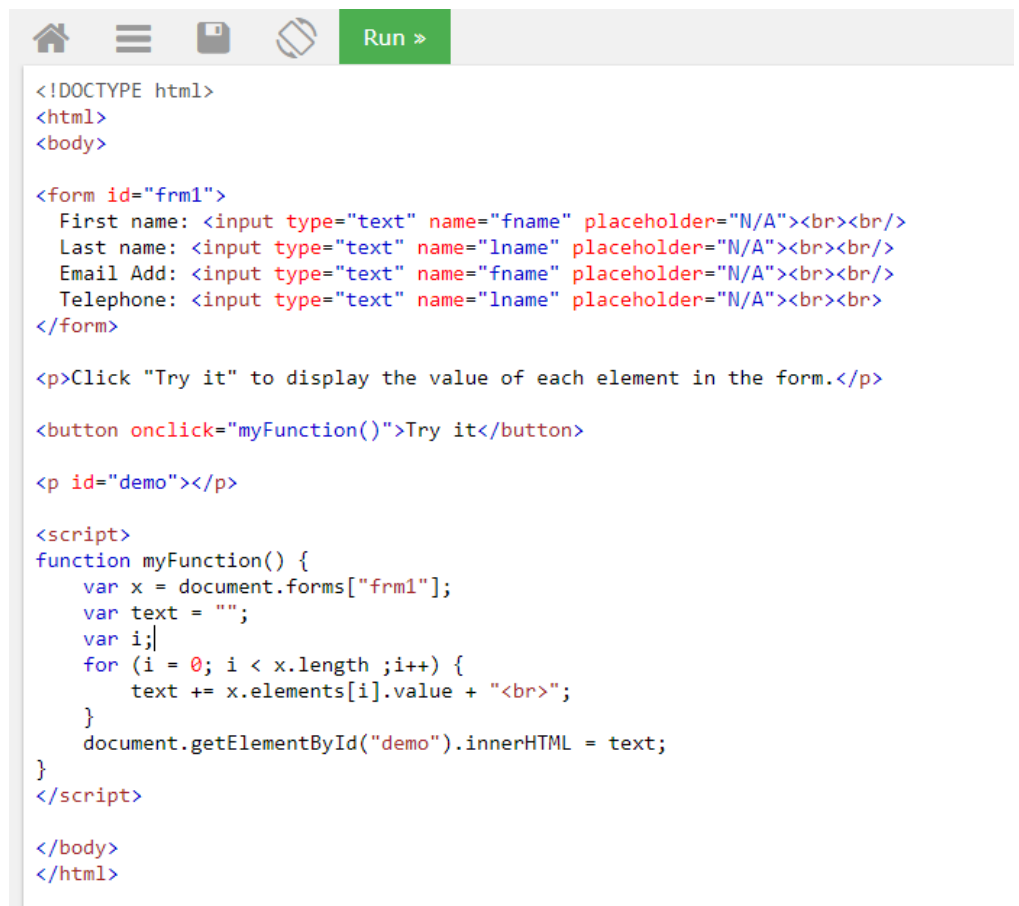
## HTML Element Method:

1. `document.getElementById(id)`: សំរាប់ទាញយក និង ដាក់ទិន្នន័យទៅកាន់ `TextField` របស់ `form` វិញ តែ `TextField` ត្រូវតែជា `id`.
2. `document.getElementsByTagName(name)`: សំរាប់ទាញយក និង ដាក់ទិន្នន័យទៅកាន់ `TextField` របស់ `form` វិញ តែ `TextField` ត្រូវតែជា `Name`.

## HTML Element for Change:

1. `element.innerHTML = New Value` សំរាប់ផ្លាស់ប្តូរនូវ Contents HTML
2. `element.attribute = new value` សំរាប់ផ្លាស់ប្តូរនូវ Contents HTML តាមរយៈ Attribute
3. `element.setAttribute(attribute, value)` សំរាប់ផ្លាស់ប្តូរនូវ Contents HTML
4. `element.style.property = new style` សំរាប់ផ្លាស់ប្តូរនូវ Style HTML

## ឧទាហរណ៍ ១៖



```
<!DOCTYPE html>
<html>
<body>

<form id="frm1">
  First name: <input type="text" name="fname" placeholder="N/A"><br><br>
  Last name: <input type="text" name="lname" placeholder="N/A"><br><br>
  Email Add: <input type="text" name="femail" placeholder="N/A"><br><br>
  Telephone: <input type="text" name="lphone" placeholder="N/A"><br><br>
</form>

<p>Click "Try it" to display the value of each element in the form.</p>

<button onclick="myFunction()">Try it</button>

<p id="demo"></p>

<script>
function myFunction() {
  var x = document.forms["frm1"];
  var text = "";
  var i;
  for (i = 0; i < x.length ;i++) {
    text += x.elements[i].value + "<br>";
  }
  document.getElementById("demo").innerHTML = text;
}
</script>

</body>
</html>
```



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First name:

Last name:

Email Add:

Telephone:

Click "Try it" to display the value of each element in the form.

Sok  
Chan  
sok@gamil.com  
0962268884

ឧទាហរណ៍ ២៖

```

<!DOCTYPE html>
<html>
<style>
input[type=text]{
    width: 50%;
    padding: 12px 20px;
    margin: 8px 0;
    display: inline-block;
    border: 1px solid #ccc;
    border-radius: 4px;
    box-sizing: border-box;
}

input[type=button] {
    width: 30%;
    background-color: #4CAF50;
    color: white;
    padding: 14px 20px;
    margin: 8px 0;
    border: none;
    border-radius: 4px;
    cursor: pointer;
}

div {
    border-radius: 5px;
    background-color: #f2f2f2;
    padding: 20px;
    width:50%;
}
</style>
<script>
function Calculate()
{
    var x,y;
    x=document.getElementById('tfa').value;
    y=document.getElementById('tfb').value;
    document.getElementById('tfr').value=(parseInt(x) + parseInt(y));
}

```



```

<body>

<h3>Using CSS to style an HTML Form</h3>

<div>
  <form action="/action_page.php">
    <label for="fname">Input Value A</label>
    <input type="text" id="tfa" name="firstname" placeholder="0"><br/>

    <label for="lname">Input Value B</label>
    <input type="text" id="tfb" name="lastname" placeholder="0"><br/>
    <label for="lname">Result Value</label>
    <input type="text" id="tfr" name="lastname" placeholder="0"><br/>

    <input type="button" value="Caluculate" onClick="Calculate()">
    <input type="button" value="Reset">
  </form>
</div>

</body>
</html>

```

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#### Using CSS to style an HTML Form

Input Value A

Input Value B

Result Value

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```

<!DOCTYPE html>
<html lang="en">
<head>
  <title>Bootstrap Example</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>
  <script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>
  <script>
    function view()
    {
      var e,p;
      e=document.getElementById('tfemail').value;
      p=document.getElementById('tfpass').value;
      var str="<table class='table'>";
      str=str + "<tr><th>Email</th><th>Password</th></tr>";
      str=str + "<tr><td>" + e + "</td><td>" + p + "</td></tr></table>";
      document.getElementById('dis').innerHTML=str;
    }
  </script>

```



```

</head>
|
<body>

<div class="container">
  <h2>Horizontal form</h2>
  <form class="form-horizontal" action="/action_page.php">
    <div class="form-group">
      <label class="control-label col-sm-2" for="email">Email:</label>
      <div class="col-sm-10">
        <input type="email" class="form-control" id="tfemail" placeholder="Enter email"
name="email">
      </div>
    </div>
    <div class="form-group">
      <label class="control-label col-sm-2" for="pwd">Password:</label>
      <div class="col-sm-10">
        <input type="password" class="form-control" id="tfpass" placeholder="Enter password"
name="pwd">
      </div>
    </div>
    <div class="form-group">
      <div class="col-sm-offset-2 col-sm-10">
        <div class="checkbox">
          <label><input type="checkbox" name="remember"> Remember me</label>
        </div>
      </div>
    </div>
    <div class="form-group">
      <div class="col-sm-offset-2 col-sm-10">
        <button type="button" class="btn btn-default" onClick="view()">View</button>
        <button type="button" class="btn btn-default">Reset</button>
      </div>
    </div>
    <div class=".col-sm-9">
      <div id="dis"></div>
    </div>
  </form>
</div>

</body>
</html>

```

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### Horizontal form

Email:

Password:

☒ Remember me

Email

Password

chanelda@gmail.com

123456



## លំហាត់អនុវត្តន៍

១)

### Big Number Calculator

The calculator below can compute very large numbers. Acceptable formats include: integers, decimal, or the E-notation form of scientific notation, i.e. 23E18, 3.5e19, etc.

#### Result

18

X =

Y =

Precision:  digits after the decimal place in the result

Click the buttons below to calculate

២) ចូរប្រើប្រាស់នូវការត String មួយទៅកាន់ String មួយទៀតនៅពេលអ្នក

ប្រើប្រាស់ចុច លើ Button Submit និង សរសេរកូដសំអាតលើ Button Reset.

First Name:

Last Name:

Email:

Firstname	Lastname	Email
Default	Defaultson	def@somemail.com
Success	Doe	john@example.com
Danger	Moe	mary@example.com
Info	Dooley	july@example.com
Warning	Refs	bo@example.com
Active	Activeson	act@example.com



៣) ចូរសរសេរកូដប្រើប្រាស់នូវ Array សំរាប់ Store ទុកតំលៃ និងសរសេរកូដបញ្ជាក់លើ button នីមួយៗ ដូចខាងក្រោម៖

First Name

Last Name

Country

Cambodia ▼

Subject

Write something..

Add

View

Delete

Search

First Name	Last Name	Country	Subject
Alfreds Futterkiste	Maria Anders	Germany	Germany
Alfreds Futterkiste	Maria Anders	Germany	Germany

ខាងក្រោមគឺជាប្រភេទ events ដែលសំខាន់ៗរបស់ Java Script :

Event Handlers	Triggered when
onChange	The value of the text field, text area, or a drop down list is modified
onClick	A link, an image or a form element is clicked once
onDbClick	The element is double-clicked
onMouseDown	The user presses the mouse button
onLoad	A document or an image is loaded
onSubmit	A user submits a form
onReset	The form is reset
onUnLoad	The user closes a document or a frame
onResize	A form is resized by the user

## ឧទាហរណ៍ ១៖ របៀបចាប់តំលៃចេញពី Checkbox

```

<!DOCTYPE html>
<html>
<body>

<p>How would you like your coffee?</p>

<form action="/action_page.php">
  <input type="checkbox" name="coffee" value="cream">With cream<br>
  <input type="checkbox" name="coffee" value="sugar">With sugar<br>
  <input type="checkbox" name="coffee" value="Caffee">With Caffee<br>
  <br>
  <input type="button" onclick="myFunction()" value="Send order">
  <br><br>
  <input type="text" id="order" size="50">
  <input type="submit" value="Submit">
</form>

<script>
function myFunction() {
  var coffee = document.forms[0];
  var txt = "";
  var i;
  for (i = 0; i < coffee.length; i++) {
    if (coffee[i].checked) {
      txt = txt + coffee[i].value + " ";
    }
  }
  document.getElementById("order").value = "You ordered a coffee with: " + txt;
}
</script>

</body>
</html>

```

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- ☒ With cream
- ☒ With sugar
- ☒ With Caffee

Send order

You ordered a coffee with: cream sugar Caffee

Submit

## ឧទាហរណ៍ ២៖ របៀបចាប់តំលៃចេញពី RadioButton

```

<script>
function getCheck()
{
  var radios = document.getElementsByName('ship');

  for (var i = 0, length = radios.length; i < length; i++) {
    if (radios[i].checked) {
      // do whatever you want with the checked radio
      alert(radios[i].value);

      // only one radio can be logically checked, don't check the rest
      break;
    }
  }
}
</script>

```

```
<form action="#" method="post" class="demoForm" id="demoForm">
  <fieldset>
    <legend>Demo: Get Value of Selected</legend>

    <p>Select a shipping method:</p>
    <p>
      <label><input type="radio" name="ship" value="std" checked /> Standard Ground</label>
      <label><input type="radio" name="ship" value="2day" /> Second Day</label>
      <label><input type="radio" name="ship" value="1day" /> Overnight</label>
      <label><input type="radio" name="ship" value="hold" /> Pick up</label>
    </p>

    <p><button type="button" name="getVal" Onclick="getCheck()">Get Value of Selected</button></p>
  </fieldset>
</form>
```

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Demo: Get Value of Selected

Select a shipping method:

☐ Standard Ground 
 ☒ Second Day 
 ☐ Overnight 
 ☐ Pick up

Get Value of Selected

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```

<!DOCTYPE html>
<html>
<head>
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.2.0/jquery.min.js"></script>
</head>
<body>
  <script>
    <script>
      $(function () {
        $('#input[name="test"]').on('change', function (a, b) {
          var value = this.value;
          $('#ul1 >li').hide();
          if (value == 'All') {
            $('#ul1 >li').show();
          }
          if (value == 'Under 10$') {
            $('#ul1 >li').filter(function (a, b) {
              var v = b.value;
              return 10 > v;
            }).show();
          }
          if (value == 'Between 10$ - 20$') {
            $('#ul1 >li').filter(function (a, b) {
              var v = b.value;
              return v>=10 && v <= 20;
            }).show();
          }
        });
      });
    </script>

    <input type="radio" value="All" checked name="test"><label>All</label>
    <input type="radio" value="Under 10$" name="test"><label> Under 10$</label>
    <input type="radio" value="Between 10$ - 20$" name="test"><label>Between 10$ - 20$</label>

    <ul id="ul1">
      <li value=6.67>costs 6.67$</li>
      <li value=15>costs 15$</li>
      <li value=19>costs 19$</li>
    </ul>
  </body>
</html>

```

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☒ All 
 ☐ Under 10\$ 
 ☐ Between 10\$ - 20\$

- costs 6.67\$
- costs 15\$
- costs 19\$