



T.C. İSTANBUL KÜLTÜR ÜNİVERSİTESİ

COM5005 – WEB PROGRAMMING

LAB 05 – Advanced Javascript

After completing this Lab, you will be able to

- Using Javascript with Form Objects
- JavaScript Events
- Validation Rules with Javascript

PROCEDURE 1 – Using Javascript with Form Objects

The most important objects of HTML for Javascript are Forms. The biggest element in interacting with website users is form objects.

Name	Name of Form
Action	The action to apply to render the form element.
Method	Specifies that the form element will post/get .
Target	Window Name
OnSubmit	The name of the sending method

Step 1 – Text Object.

Parameters used by the Text object: **Name**, Name of text field; **Size**, The size of the text field to appear on the web page; **Maxlength**, Sets the maximum number of characters that can be entered.

```
<form>
  <label><b>Student Name:</b></label><br/>
  <input type="text" id="name" maxlength=5 ><br/>

  <label><b>Student Surname:</b></label><br/>
  <input type="text" id="surname">
</form>
```

** Execute the code and review the results.

Student Name: <input type="text"/>
Student Surname: <input type="text"/>

Step 2 - Password Field. These fields are used to get encrypted information. When an information is entered in this field, the characters do not appear, instead an asterisk * appears.

```
<form>
  <label><b>Student Name</b></label><br/>
  <input type="text" id="name" maxlength=5 ><br/>

  <label><b>Your Password</b></label><br/>
  <input type="Password" name="password" id="password">
</form>
```

** Execute the code and review the results.

Student Name

Your Password

Step 3 – Button. There are 2 types of buttons on web forms. First, it is the **Submit Button** to send or receive according to the form task, and the other is the **Delete(Reset) Button**, which makes all the form elements return to their original state.

```
<form>

  <label><b>User Name</b></label><br/>
  <input type="text" id="user" maxlength=20 ><br/>

  <label><b>Your Password</b></label><br/>
  <input type="Password" name="password" id="pswrd"><br/>

  <button type="submit" id="loginBtn">Login</button>

  <input type="Reset" name="delete" id="delBtn" value="Reset">
</form>
```

**Other
Button
Definition**

** Execute the code and review the results.

User Name

Your Password

Step 4 – Radio Button. Radio buttons should be used when you want your user to choose between two or more options.

```
<form>
  <label><b>Let's Rate the Web Lesson</b></label><br/>

  <input type="radio" name="lesson" id="radioBtn_1" value=1> So Hard <br/>
  <input type="radio" name="lesson" id="radioBtn_2" value=2> Hard <br/>
  <input type="radio" name="lesson" id="radioBtn_3" value=3> So-so! <br/>
  <input type="radio" name="lesson" id="radioBtn_4" value=4> Good <br/>
  <input type="radio" name="lesson" id="radioBtn_5" value=5> So Fun <br/>

  <button type="submit" id="submitBtn">OK</button>

</form>
```

**** Execute the code and review the results.**

Let's Rate the Web Lesson

- ☐ So Hard
- ☐ Hard
- ☐ So-so!
- ☐ Good
- ☐ So Fun

OK

Step 5 – CheckBox List.

```
<html>
<form action="">
Hobbies <br>
Swimming:<input type="checkbox" name="hobby" id="hobby1" value="Swimming"> <br/>
Running:<input type="checkbox" name="hobby" id="hobby2" value="Running"> <br/>
Reading: <input type="checkbox" name="hobby" id="hobby3" value="Reading"> <br/>
<button type="button" id="btn"> Read Form Data</button>
</form>

<script>
//buton click function
btn.onclick=function(){
  if(document.forms[0].hobby1.checked == true)
    alert("Swimming is selected.")

  if(document.forms[0].hobby2.checked == true)
    alert("Running is selected.")

  if(document.forms[0].hobby3.checked == true)
    alert("Reading is selected.")
}
</script>
</html>
```

**** Execute the code and review the results.**

Hobbies

Swimming: ☐

Run: ☒

Book: ☐

Read Form Data

Data from form elements can be processed with javascript. We can use the **id** parameter of the form data to access the data. Thanks to **the document.forms[].attribute method**, we can use the id of the form element we want to access.

PROCEDURE 2 – JavaScript Events

HTML documents contain many objects. These objects are subject to certain effects. For example, a button is for clicking, and for an object being clicked is an event. JavaScript can operate on HTML objects as a result of the event.

HTML events are actions taken by the browser or user:

- Loading the web page
- Change of data entry field,
- Clicking the button

Step 1 – Clicking the Button.

```
<html>  
  <button> Click Here</button>  
</html>
```

**** Execute the code and review the results.**

Click Here

Clicking the button above is an event. However, it does not respond because it is not connected with JavaScript.

Now when the button is **clicked**, **"Hello!"** Let's do it with JavaScript.

Step 2 – HTML allows us to write JavaScript code to the event property for each event. In the example below, the HTML **onclick** attribute has been added for the button click event.

```
<html>  
  <button onclick="alert('HELLO!')">Click Here</button>  
</html>
```

**** Execute the code and review the results.**

Bu sayfanın mesajı

HELLO!

Tamam

Here, thanks to the HTML feature that we can use as `onclick=""`, we made the codes we wrote in JavaScript run when the button is clicked.

Event	Description
onchange	Raised when the HTML element is changed.
onclick	Raised when the user clicks on the HTML object.
onmouseover	Raised when the user hovers over the HTML object.
onmouseout	Raised when the user leaves the HTML object.
onkeydown	It is triggered when the user presses the keyboard key.
onload	It is triggered when the browser has finished loading the page.

Step 3 - Use of functions in form elements. We can manipulate the styles of form objects with Javascript.

```
<html>
<head>
<title>Football Teams</title>

<script>

function stil(a,b)
{
    document.getElementById("text").style.color=a;
    document.getElementById("text").style.backgroundColor=b;
}

</script>

</head>

<body>
<button id="b1" onclick="stil('yellow','red')">Galatasaray</button>
<button id="b2" onclick="stil('white','black')">Beşiktaş</button>
<button id="b3" onclick="stil('yellow','navy')">Fenerbahçe</button>

<p id="text">Please choose which team you are on.</p>

</body>
</html>
```

** Execute the code and review the results.

Galatasaray

Beşiktaş

Fenerbahçe

Please choose which team you are on.

PROCEDURE 3 – Validation Rules with Javascript

EXERCISE

REGISTRATION FORM

User Name:

m.gun

Name

Merve

Gender

☐ Male

☒ Female

E-Mail:

m.gun@iku.edu.tr

Password:

....

Repeat Password:

....

Hobby:

☒ Swimming

☐ Running

☒ Trekking

☒ Reading

Sign Up

Reset

Step 1 – Verify the form elements of the Registration Form web page, whose html document is given.

Step 2 – Verify that the User Name, Name, Email, and Passwords fields cannot be blank, and give a warning.

Step 3 – Verify whether the information entered in the Password and Repeat Password fields are the same and give a warning.

Step 4 – If the entire form is filled in correctly, give the warning "Form submission completed successfully".

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