

National University of Computer and Emerging Sciences



Lab Manual

“Java Script and CSS in ASP.net Web”

Database Systems Lab

Spring 2023

Department of Computer Science
FAST-NU, Lahore, Pakistan



Table of Contents

1. Objective.....	2
2. Prerequisites.....	2
3. Task Distribution.....	2
4. CSS- Cascaded Style Sheet.....	3
Different Ways to Add Styles to Tags:.....	4
CSS-Selector.....	4
CSS-ID and CSS-CLASS.....	5
CSS-ID.....	5
CSS-CLASS.....	5
CSS EXERCISE.....	7
SELF EXPLORATION:.....	7
5. JAVA SCRIPT.....	8
Java Script EXERCISE.....	10
SELF EXPLORATION:.....	10



1. Objective

In this lab you will learn how to use CSS to style ASP.net web application and How to use JavaScript to perform client-side validation.

2. Prerequisites

- Lab 1 manual, Introduction to Asp.net.
- Slides of JavaScript
- Slides on HTML and CSS (although these slides are on how to use CSS in HTML, they will be useful in ASP.net web forms as well.)

3. Task Distribution

Total Time	90 Minutes
CSS	10 Minutes
JavaScript	20 Minutes
Exercise	50 Minutes

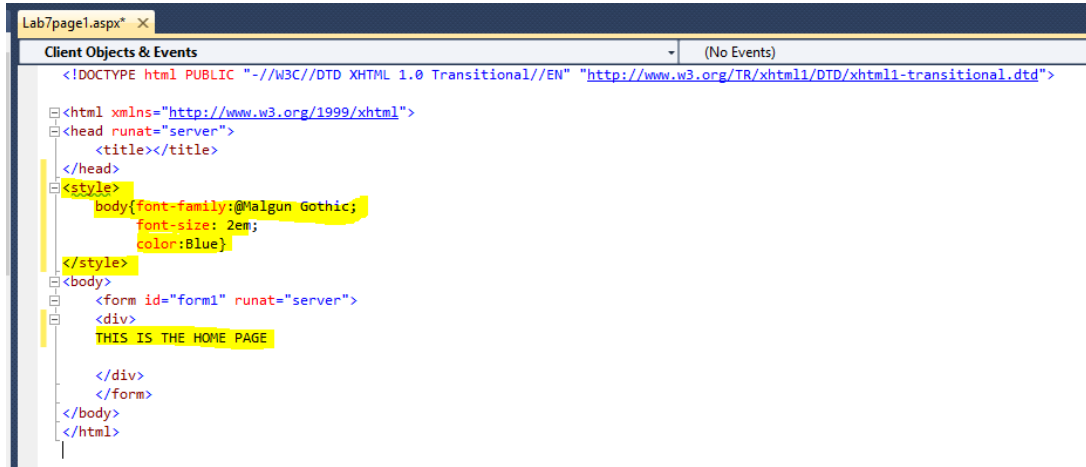
4. CSS- Cascaded Style Sheet

CSS is a language used to design and style the layout of web page, including colors, size, images font etc. To use CSS, you first create a Style and then you can apply it to Tags (for examples on button tag, textbox tag etc.).

TRY THIS:

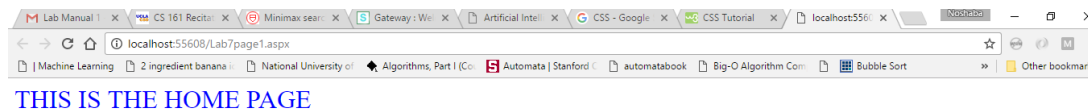
Open Visual Studio, and create ASP.net web project then go to Solution Explorer and Add new ASPX web form. Modify your Web form as follow: Add some text in body and add the CSS style tags as shown.

****NOTE DON'T CREATE ASP.net Empty Project, always create ASP.net web project**



```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
<title></title>
</head>
<style>
body{font-family:@Malgun Gothic;
font-size: 2em;
color:Blue}
</style>
<body>
<form id="form1" runat="server">
<div>
THIS IS THE HOME PAGE
</div>
</form>
</body>
</html>
```

Execute your project (CTRL+F5) and make sure you open your own Web form in browser (see the URL in browser). Your web page will look as shown in figure, all the font in body tag will be of the style-rule **body** you defined in Style tag.



Different Ways to Add Styles to Tags:

CSS-Selector

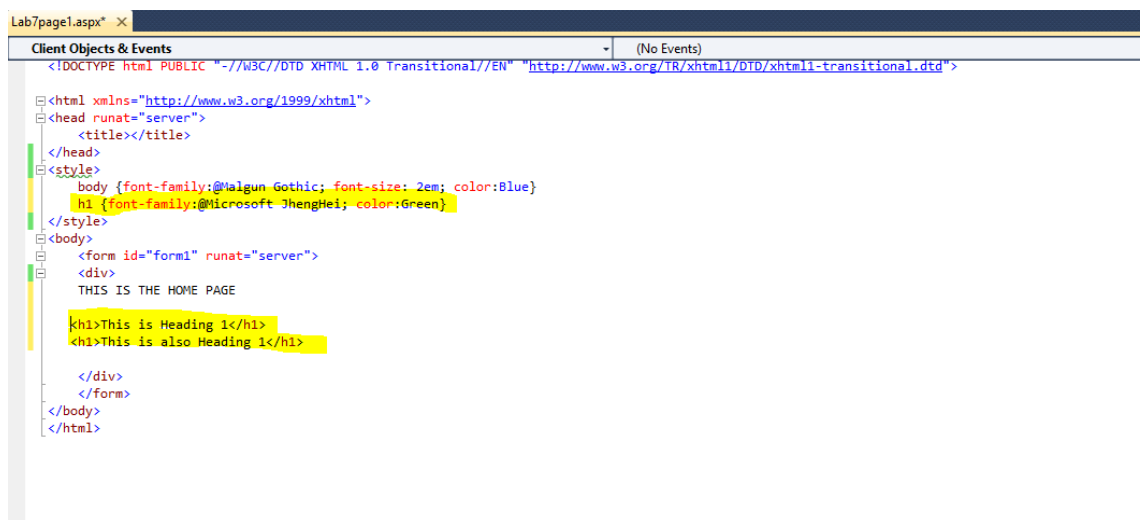
The above example defined a style on **body** tag. This is called CSS selector. The selector points to the Asp.net element you want to style. Syntax to define CSS-Selector Style rules is

SELECTOR {Property:Value; Property:Value; Property:Value }

body {font-family:@Malgun Gothic; font-size: 2em; color:Blue}

Selectors can be any HTML elements such as h1 tag, p tag, body tag.

TRY IT: Add h1 tags to your Web form and then add the following CSS selector to Style tag.

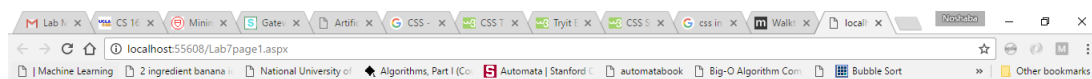


```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
<title></title>
</head>
<style>
body {font-family:@Malgun Gothic; font-size: 2em; color:Blue}
h1 {font-family:@Microsoft JhengHei; color:Green}
</style>
<body>
<form id="form1" runat="server">
<div>
THIS IS THE HOME PAGE

<h1>This is Heading 1</h1>
<h1>This is also Heading 1</h1>

</div>
</form>
</body>
</html>
```

Execute, all the text in h1 tag will have the Style h1 selector.



THIS IS THE HOME PAGE

This is Heading 1

This is also Heading 1

CSS-ID and CSS-CLASS

To change the style of ASP.net controls such as buttons and textboxes, you can use CSS-ID or CSS-CLASS.

CSS-ID

CSS-ID is used to change the style of only one specific ASP.net control in Web form.

CSS-ID is defined as follow:

```
#ClassName {Property:Value; Property:Value; Property:Value}
```

Example:

```
#ID {Property:Value; Property:Value; Property:Value }  
#submit {height : 30px ; color:Blue; border:3px solid;border-color:Blue}
```

Now the ASP.net control with ID=submit will be styled according to the #submit rules, and as all controls have unique ID CSS-ID rules can only be for once control on one page.

CSS-CLASS

Unlike CSS-ID, CSS-Class can be used for more than one control (same or different type) in a page. To apply CSS-class to ASP.net control set the CssClass property of that control equal to that CSS-Class

CSS class is defined as follow:

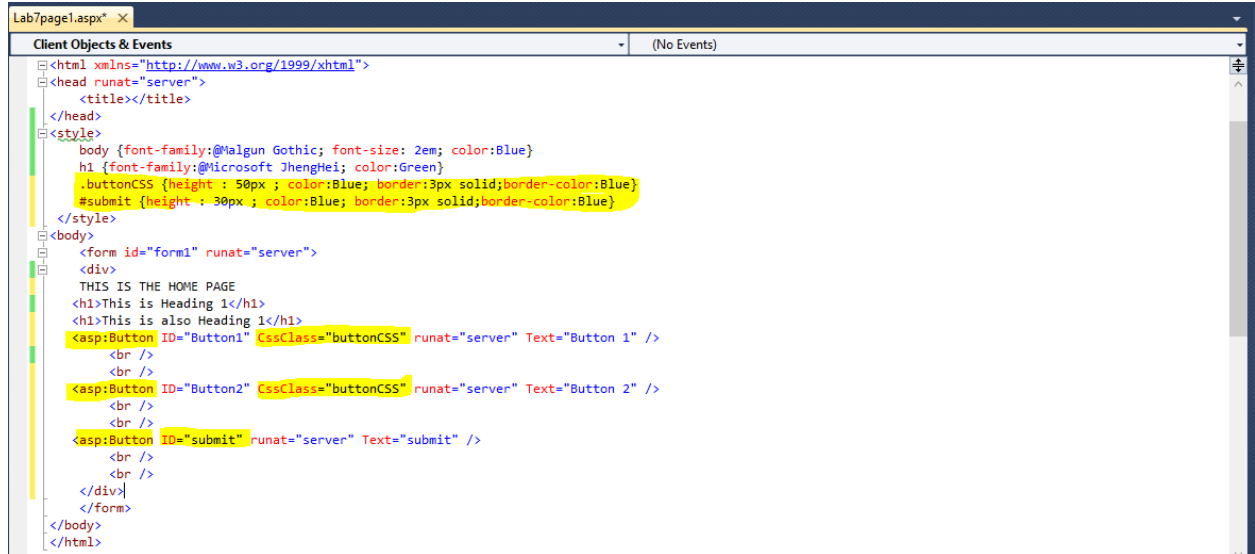
```
.ClassName {Property:Value; Property:Value; Property:Value}
```

Example:

```
ClassName {Property:Value; Property:Value; Property:Value }  
.buttonCSS {height:50px ; color:Blue; border:3px solid ; border-color:Blue}
```

NOTE: Classname will always begin with a dot <.>, List of property:value is separated by semicolon <.>

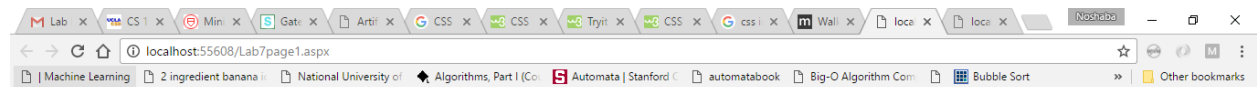
TRY THIS: Add .buttonCSS style to Style tag, add two buttons in you page and set there
CssClass="buttonCSS", as shown in figure. Also add #submit style to you Style tag and add one button with
ID="submit"



```
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
<title></title>
</head>
<style>
body {font-family:@Malgun Gothic; font-size: 2em; color:Blue}
h1 {font-family:@Microsoft JhengHei; color:Green}
.buttonCSS {height : 50px ; color:Blue; border:3px solid;border-color:Blue}
#submit {height : 30px ; color:Blue; border:3px solid;border-color:Blue}
</style>
<body>
<form id="form1" runat="server">
<div>
THIS IS THE HOME PAGE
<h1>This is Heading 1</h1>
<h1>This is also Heading 1</h1>
<asp:Button ID="Button1" CssClass="buttonCSS" runat="server" Text="Button 1" />
<br />
<br />
<asp:Button ID="Button2" CssClass="buttonCSS" runat="server" Text="Button 2" />
<br />
<br />
<asp:Button ID="submit" runat="server" Text="submit" />
<br />
<br />
</div>
</form>
</body>
</html>
```

Execute it,

Button 1 and Button 2 has .buttonCSS rules applied on it to it and Submit has #submit style applied to it.



THIS IS THE HOME PAGE

This is Heading 1

This is also Heading 1

Button 1

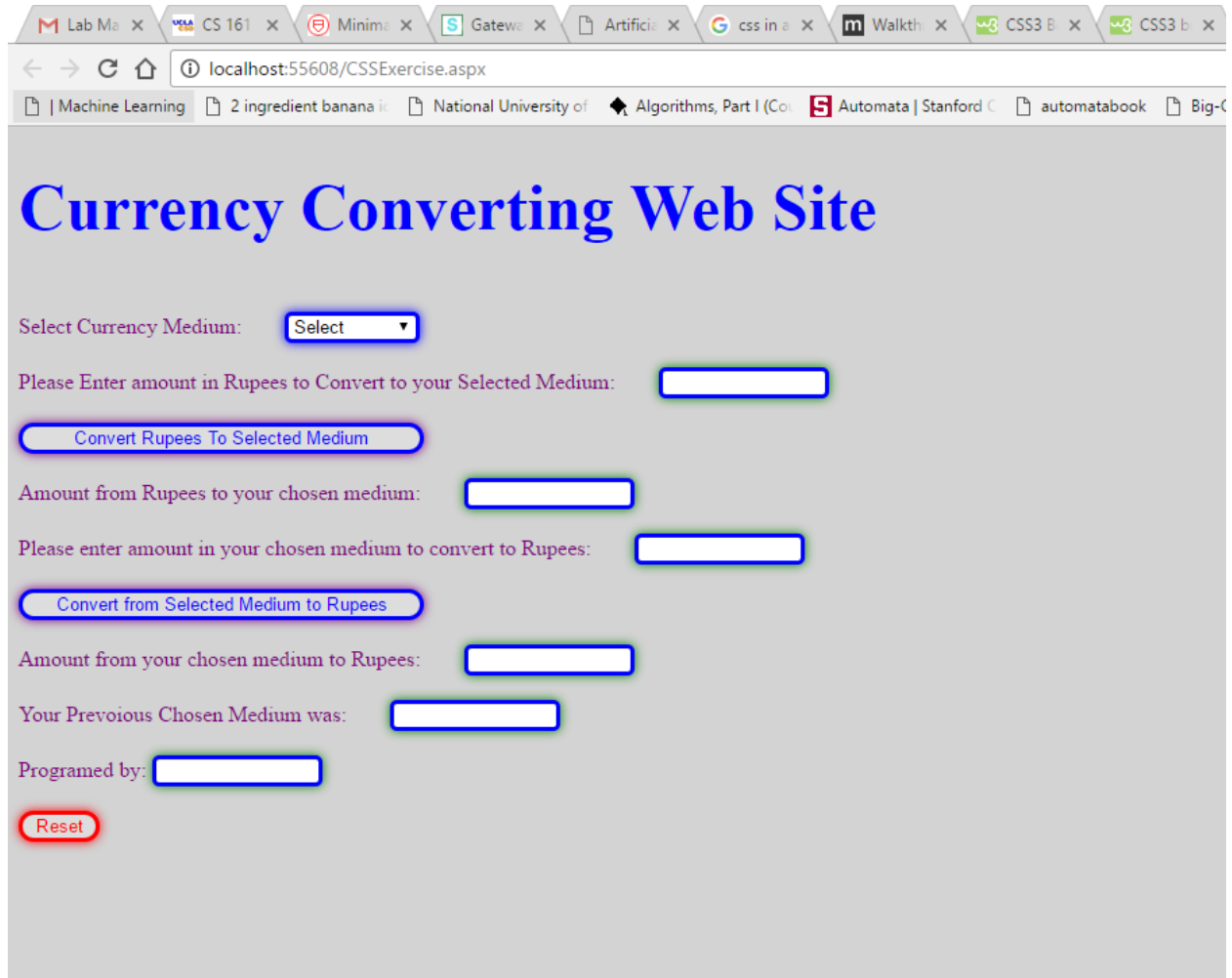
Button 2

submit

CSS EXERCISE

Create new Web form as shown in figure below and Replicate the following:

- Main Heading style and color.
- All the other text style and color.
- Button's text color and border color and border glow, buttons also have round edges.
- Text box border color and glow.
- Drop down border color and glow, it has three options, Dollar, Euro and Pound
- Search the property and values to do these from internet.



The screenshot shows a web browser window with the address bar displaying 'localhost:55608/CSSExercise.aspx'. The browser has several tabs open, including 'Lab Ma', 'CS 161', 'Minima', 'Gatewa', 'Artificia', 'css in a', 'Walkth', 'CSS3 B', and 'CSS3 b'. The web page has a light gray background and a large blue heading 'Currency Converting Web Site'. Below the heading, there is a form with the following elements:

- A label 'Select Currency Medium:' followed by a dropdown menu with 'Select' as the selected option.
- A label 'Please Enter amount in Rupees to Convert to your Selected Medium:' followed by a text input field.
- A button labeled 'Convert Rupees To Selected Medium'.
- A label 'Amount from Rupees to your chosen medium:' followed by a text input field.
- A label 'Please enter amount in your chosen medium to convert to Rupees:' followed by a text input field.
- A button labeled 'Convert from Selected Medium to Rupees'.
- A label 'Amount from your chosen medium to Rupees:' followed by a text input field.
- A label 'Your Prevoious Chosen Medium was:' followed by a text input field.
- A label 'Programed by:' followed by a text input field.
- A button labeled 'Reset'.

SELF EXPLORATION:

You can also separate CSS style from Web form by adding Style in .CSS file and link it to your Web form.

5. JAVA SCRIPT

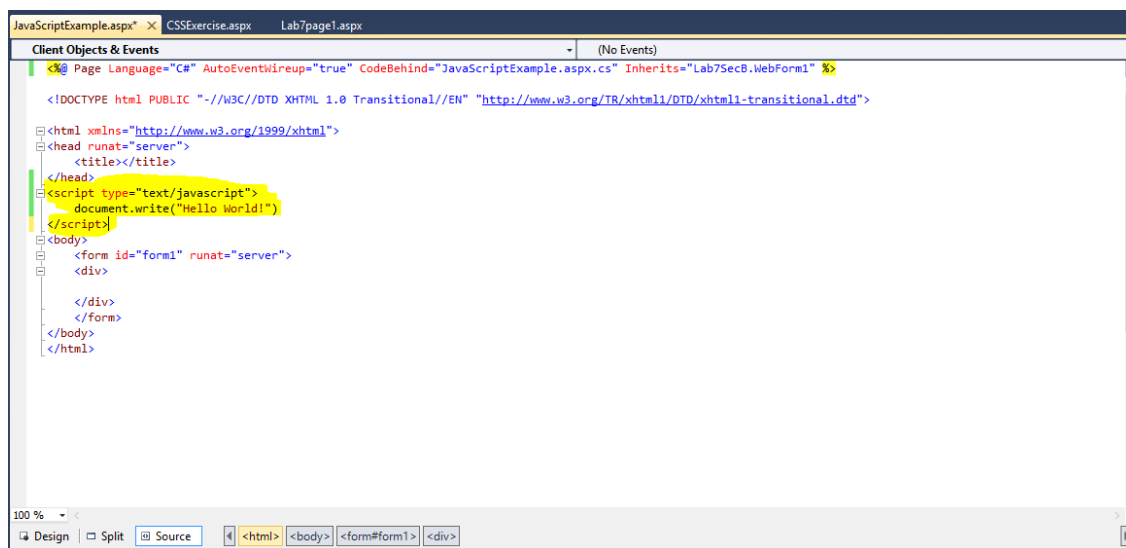
JavaScript is the most popular scripting language on the internet. JavaScript is used in millions of Web pages to improve the design, validate forms, detect browsers, create cookies, and much more. It works in all major browsers, such as Internet Explorer, Mozilla, Firefox, Netscape, Opera.

In this manual we will use java Script to perform Client side operations or validation.

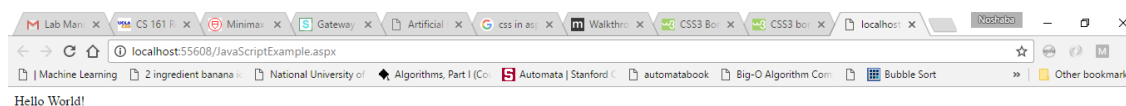
TRY THIS:

Create a new Web form and add Script tag and add statments to it as shown in figure. The statment in the script will run when ever the page is loaded.

`document.write(String)` will overwrite your web page and display the string you give it as input



Execute your page and result should be as follow:



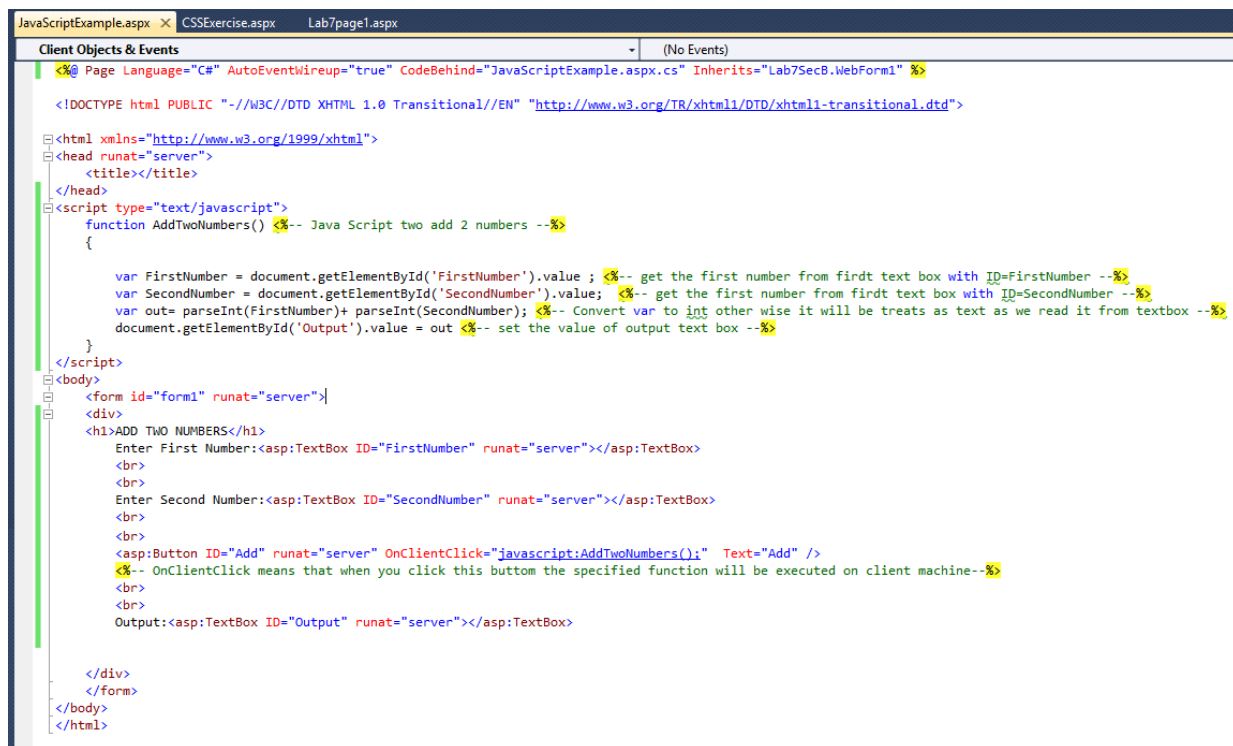
You can create functions in java script that can be called on some specific action:

Syntax of Javascript function is

```
function <functionName>()  
{  
    <body>  
}
```

TRY THIS

Create a page as shown, the page will take two numbers and when you press the button JavaScript function `AddTwoNumbers` will be called this function will add the two numbers and display in output textbox.



```
JavaScriptExample.aspx  CSSExercise.aspx  Lab7page1.aspx  
Client Objects & Events  (No Events)  
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="JavaScriptExample.aspx.cs" Inherits="Lab7SecB.WebForm1" %>  
  
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">  
  
<html xmlns="http://www.w3.org/1999/xhtml">  
<head runat="server">  
<title></title>  
</head>  
<script type="text/javascript">  
    function AddTwoNumbers() %>-- Java Script two add 2 numbers --%>  
    {  
        var FirstNumber = document.getElementById('FirstNumber').value; %>-- get the first number from first text box with ID=FirstNumber --%>  
        var SecondNumber = document.getElementById('SecondNumber').value; %>-- get the first number from first text box with ID=SecondNumber --%>  
        var out= parseInt(FirstNumber)+ parseInt(SecondNumber); %>-- Convert var to int other wise it will be treats as text as we read it from textbox --%>  
        document.getElementById('Output').value = out %>-- set the value of output text box --%>  
    }  
</script>  
<body>  
    <form id="form1" runat="server">  
        <div>  
            <h1>ADD TWO NUMBERS</h1>  
            Enter First Number:<asp:TextBox ID="FirstNumber" runat="server"></asp:TextBox>  
            <br>  
            Enter Second Number:<asp:TextBox ID="SecondNumber" runat="server"></asp:TextBox>  
            <br>  
            <asp:Button ID="Add" runat="server" OnClientClick="javascript:AddTwoNumbers();" Text="Add" />  
            %>-- OnClientClick means that when you click this button the specified function will be executed on client machine--%>  
            <br>  
            Output:<asp:TextBox ID="Output" runat="server"></asp:TextBox>  
        </div>  
    </form>  
</body>  
</html>
```

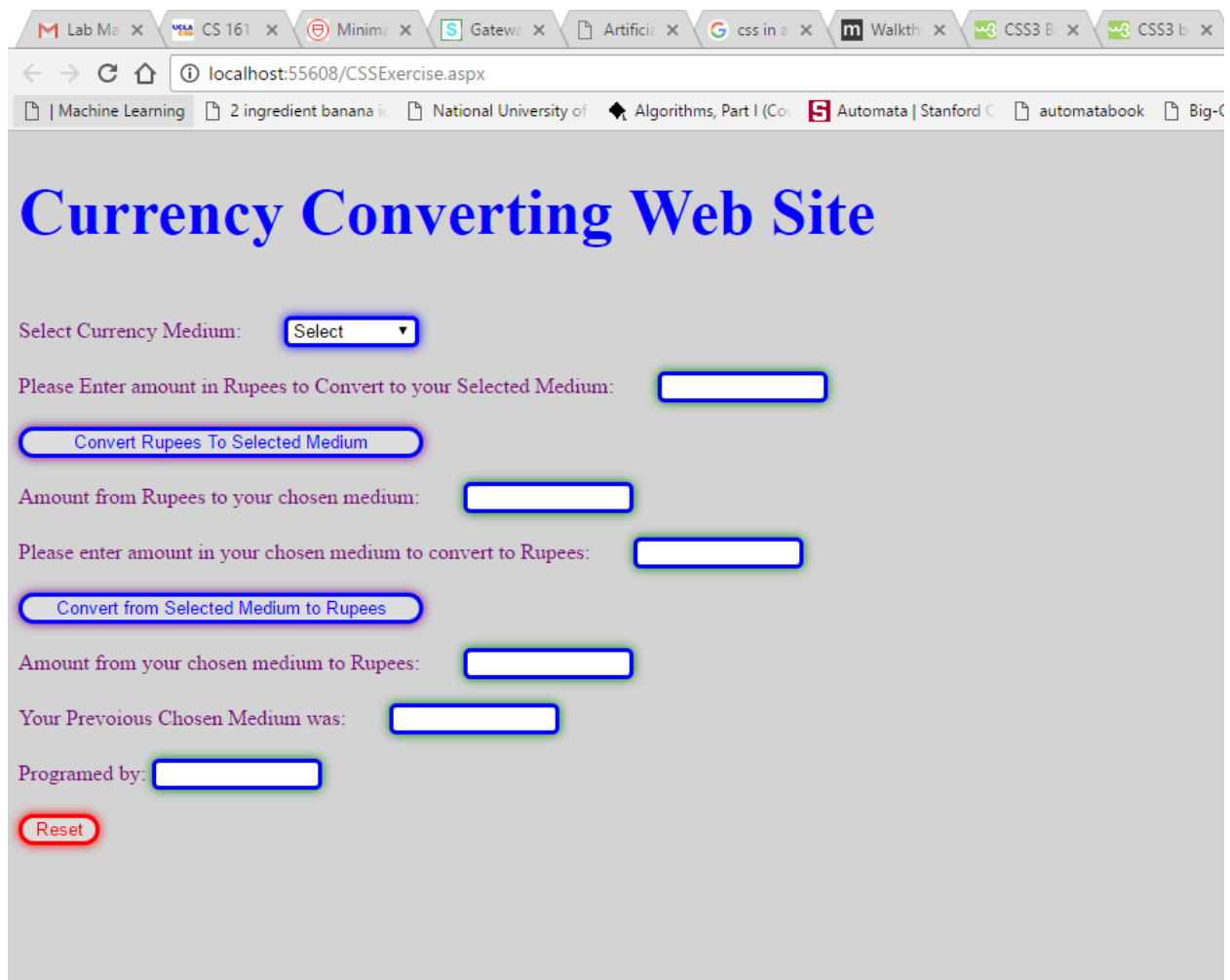
The example showed how to take get input from text boxes in JavaScript function, how to set value of text box in JavaScript function, and how to specify what function should be called on Client side when a button is pressed

Java Script EXERCISE

Use the Web form you create and how create Java Script function to convert currency to/from Rs to selected medium

- Create a JS function that will be called when 'Convert to RS from selected Medium' is pressed, it should get the value from 1st text box and convert it to selected medium, and display in 2nd text box.
- Create a JS function the will be called when Selected medium to Rs is clicked, it should take value from 3rd text box convert it into Rs from selected currency and display in 4th text box.
- Create a JS function that will be called when Reset button is pressed, it should clear all the text boxes, display the selected currency in 5th text box and you name and roll number in 6th text box.

****NOTE: DON'T USE KEYWORDS SUCH AS RESET AS NAME OF YOU JS FUNCTIONS**



The screenshot shows a web browser window with multiple tabs. The active tab is 'Lab Ma'. The address bar shows 'localhost:55608/CSSExercise.aspx'. The browser's bookmark bar includes 'Machine Learning', '2 ingredient banana ic', 'National University of', 'Algorithms, Part I (Co', 'Automata | Stanford C', 'automatabook', and 'Big-C'. The main content area displays a 'Currency Converting Web Site' form. The form has a title 'Currency Converting Web Site' in blue. Below the title, there is a label 'Select Currency Medium:' followed by a dropdown menu with 'Select' as the selected option. Below this, there is a label 'Please Enter amount in Rupees to Convert to your Selected Medium:' followed by a text box. Below the text box is a button labeled 'Convert Rupees To Selected Medium'. Below the button is a label 'Amount from Rupees to your chosen medium:' followed by a text box. Below this, there is a label 'Please enter amount in your chosen medium to convert to Rupees:' followed by a text box. Below the text box is a button labeled 'Convert from Selected Medium to Rupees'. Below the button is a label 'Amount from your chosen medium to Rupees:' followed by a text box. Below this, there is a label 'Your Prevoious Chosen Medium was:' followed by a text box. Below the text box is a label 'Programed by:' followed by a text box. At the bottom left of the form is a button labeled 'Reset'.

SELF EXPLORATION:

You can also separate CSS style from Web form by adding Style in .CSS file and link it to your Web form.

form tag

To illustrate form based tags

This is a text box to enter any text.

This is a text box to enter password.

This is a text area to enter large text

This is a button.

Radio Options

☒ YES ☐ NO

Checkbox Options

Sunday ☒ Monday ☐ Tuesday ☐

Menu driven options

Volvo
Volvo
Saab
Fiat
Audi