Course: Web Application Development
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Lab 2: HTML Form and CSS.
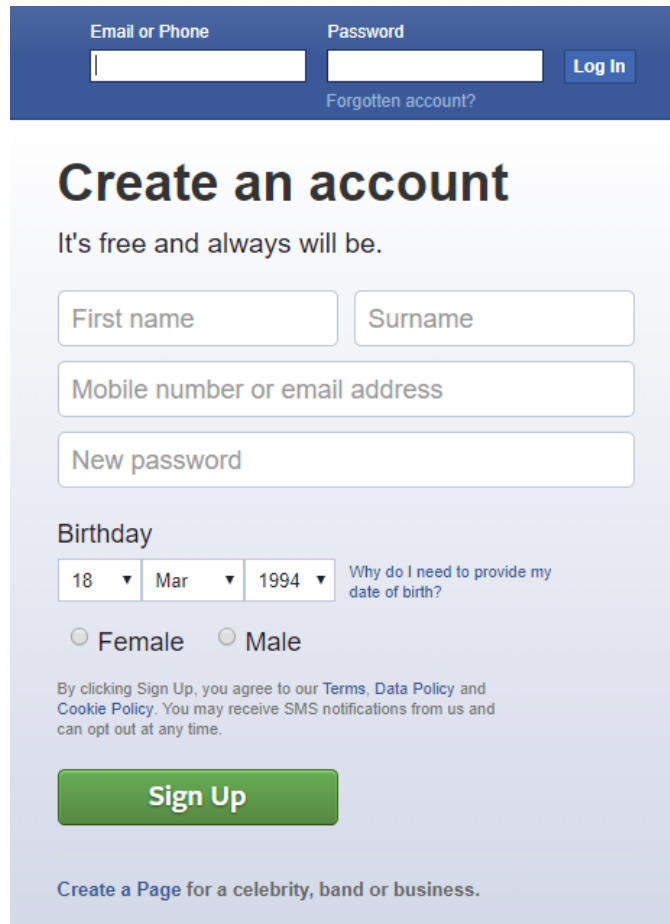
Contents:
- o **HTML Form:**
- o **Form Elements**
- o **Design Form**
- o **CSS**
- o **Exercises**

Duration: 3 hours

Part 1: HTML Form

HTML forms (sometimes called webform or web form) are useful when you want to collect data from user. You can easily encounter form when surfing the Internet: some websites ask you to fill a registration form for membership, e-commerce website ask for order forms, social networks usually have forms for posting status, photos and videos…

Example: Facebook's simple registration form

In general, a form will take input from user and send to back-end server as a HTTP request message. The server may process input based on defined business logic and return response if needed.

To define a form in HTML files, we use <form> element:

<form method="…" action="…" target="…" >
//some form elements
</form>

In the example above, the form has three attributes:

- **method:** HTTP request methods, it can be GET, POST, PUT or DELETE depended on the purpose of your form.
- **action:** defines the corresponding action will be performed when the form is submitted. For example, if action = "register.jsp", the input will be sent to page register.jsp when user submit the form.
- **target:** specifies the response from the server will be displayed in current or new browser tab.

Part 2: Form Elements

Form elements are different types of HTML input elements, like text fields, checkboxes, radio buttons, submit buttons… The most important element is <input>, it can be displayed in several ways, depending on the type attribute. For examples:

- **Textbox**
  <input type="text" name ="T1" size="33">

- **Check-box**
  <input type="checkbox" name="c1" value="ON">Computer Graphic
  <input type="checkbox" name="c2" value="ON">Computer Network
  <input type="checkbox" name="c3" value="ON">Introduction to Computer
  <input type="checkbox" name="c4" value="ON">Web Programming

- **Radio**
  <input type="radio" value="r1" checked name="red">Red
  <input type="radio" value="r2" checked name="blue">Blue
  <input type="radio" value="r3" checked name="green">Green

- **Button**
  <input type="submit" value="Submit" name="s1">
  <input type="reset" value="Reset" name="s2">

Besides <input> there are also other input elements like <select>, <textarea>, <button>:

- **Drop-down list (Select)**
  <select name="Type">
    <option>Reading</option>
    <option>Whatching TV</option>
    <option>Studying</option>
    <option>Shoping</option>
    <option>Internet</option>
  </select>

- **Text-area**

  `<textarea rows="number of rows" name="tr1" cols="number of columns"></textarea>`

- **Button**

  `<button type="button" onclick="alert('Hello World!')">Click Me!</button>`

In HTML5, we have two more form elements `<datalist>` and `<output>`. However, these new elements will not be displayed on old browser (and may cause errors).
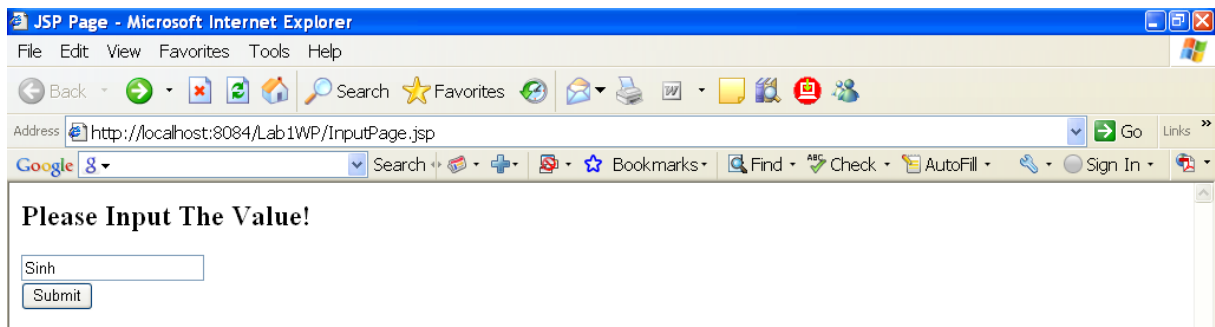For more input types, please visit this link:
https://www.w3schools.com/html/html_form_input_types.asp
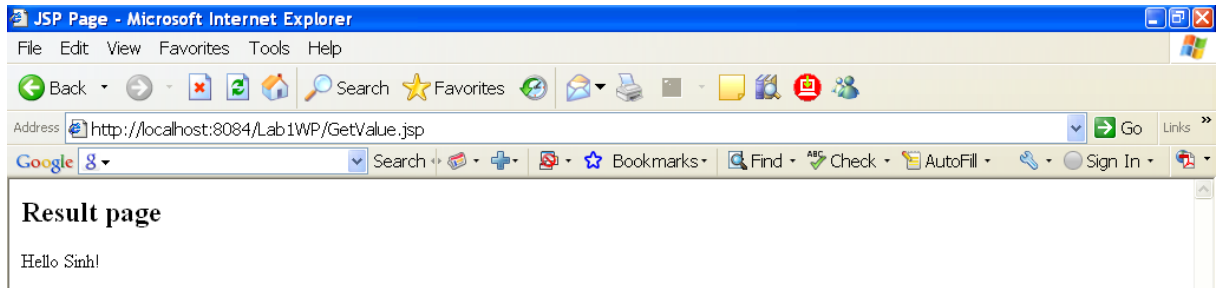
Part 3: Design Form

Open your IDE and create a file named **InputPage.jsp** with content like this:

```html
<html>
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
    <title>JSP Page</title>
  </head>
  <body>
    <h2>Please Input The Value!</h2>
    <form method="post" action="GetValue.jsp">
      <input type="text" name = "tx1"><br>
      <input type="Submit" value= "Submit">
    </form>
  </body>
</html>
```


Create another file named **GetValue.jsp**

```html
<html>
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
    <title>JSP Page</title>
  </head>
  <body>
    <h2>Result page</h2>
    <%
      String value = request.getParameter("tx1");
      out.print("Hello "+value+"!");
    %>
  </body>
</html>
```

Exercise: Try to create a simple form like this

After input information and click "Submit" button, the result should be displayed like:
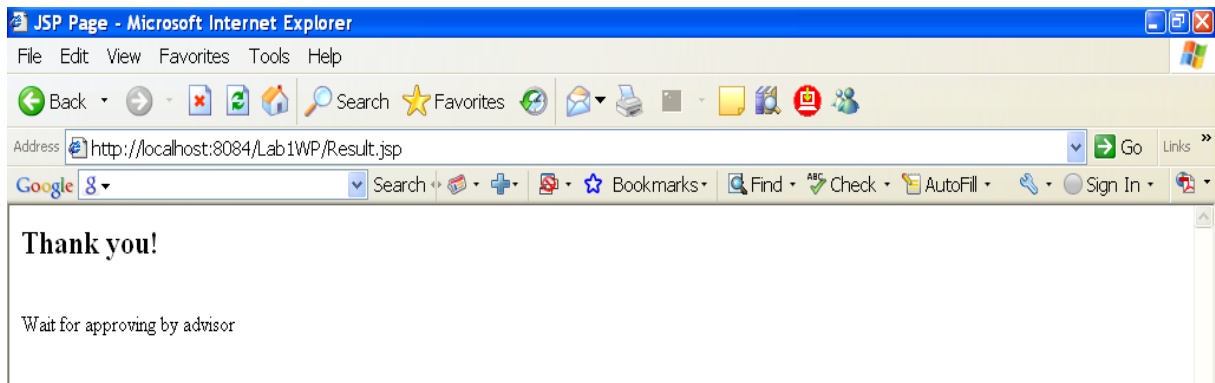
Part 4: CSS
CSS can add style to your pages, enhancing and improving the presentation of your content.
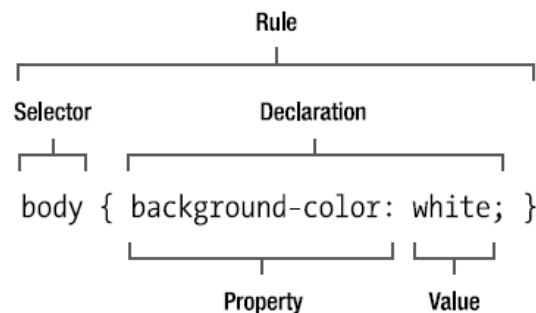
There are 3 types of CSS:
- External Style Sheet: It is declared and stored in the separate file, then can add and use in all the web pages of the website.
- Internal Style Sheet: It is declared on the header of web page and use for only this page.
- In - line Style Sheet: It is declared in the tag of HTML and use for this line.

Example of External Style Sheet:
```
<html>
  <head>
    <title>Spaghetti and Cruft : Our Menu</title>
      <link rel="stylesheet" type="text/css" href="styles.css" />
  </head>
  <body>
        <h2>Testing External Style Sheet</h2>
        <p>This is the content of page </p>
  </body>
</html>
```

This is the content of styles.css
```
h2 {font-size: 130%; color:red};
p   {font-size: 120%; color:blue};
```

Example of Internal Style Sheet:
```
<html>
  <head>
      <STYLE TYPE = "text/css">
              H1.titlepage {text-align: center; color: red }
```

```
        </STYLE>
    </head>
    <body>
        <H1 class=titlepage>Introduction!</H1>
        <h2>Hello World!</h2>
        <h3>This is lab section of Web Application Development</h3>
    </body>
</html>
```

Example of In-Line Style Sheet:
<p style = "background:blue;color:red">Example </p>

Assignment

Task 1: Complete above exercises.
Task 2: Improve and finish Assignment 1 (create at least 2 forms for your personal website)