Course: Web Application Development
Lab Instructor: Assoc. Prof. Nguyen Van Sinh
MSc. Nguyen Trung Nghia
Email: nvsinh@hcmiu.edu.vn

Lab 4: Advance HTML and CSS.

Contents:
- o **Objects**
- o **Form**
- o **Bootstrap**
- o **Exercises**

Duration: 3 hours

Part 1: Objects

Textbox

```
<input type="text" name ="T1" size="33">
```

Check-box

```
<input type="checkbox" name="c1" value="ON">Computer Graphic <br>
<input type="checkbox" name="c2" value="ON">Computer Network <br>
<input type="checkbox" name="c3" value="ON">Introduction to Computer<br>
<input type="checkbox" name="c4" value="ON">Web Programming<br>
```

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
```
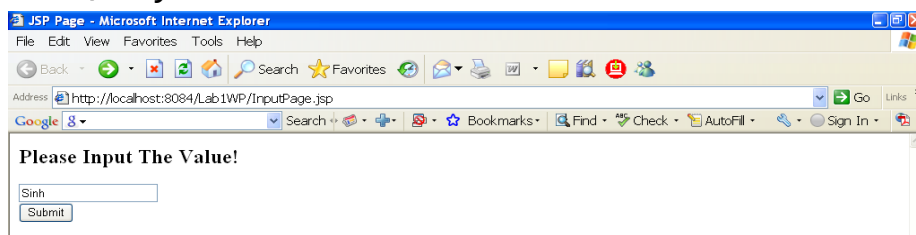
Button

```
<input type="submit" value="Submit" name="s1">
<input type="reset" value="Reset" name="s2">
```

Combo-box

```
<select name="Type">
    <option value= "Reading">Reading</option>
    <option value= "Reading">Whatching TV</option>
    <option value= "Reading">Studying</option>
    <option value= "Reading">Shoping</option>
    <option value= "Reading">Internet</option>
</select>
```

Text-area

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

Part 2: Design Form

A form is any section of a web page where a user can input information (though sometimes form elements are used to display information rather than collect it)

InputPage.jsp

```
<body>
    <h2>Please Input The Value!</h2>
    <form method="post" action="GetResult.jsp">
        <input type="text" name = "tx1"><br>
        <input type="Submit" value= "Submit">
    </form>
</body>
```


GetResult.jsp

```
<body>
    <h2>Result page</h2>
    <%
        String value = request.getParameter("tx1");
        out.print("Hello "+value+"!");
    %>
</body>
```

Part 3: Deploy your web page using GitHub

We can host a static HTML website for free on Github. You can only host static websites (HTML, CSS, JavaScript, including react, angular, bootstrap). You won't be able to upload a web application with a server (python flask/django, ruby on rails, node.js/express, etc).
The steps are as followed:

1. Create a GitHub account and login
2. Create a repository and name it {username}.github.io if it's a personal website; else, name it whatever you like.
3. Upload your web page files to the new repository
4. Go to settings, pages, and click on source. Change 'none' to 'master' or 'main' (or whichever branch you'd like)
5. Your website will have this structure: {username}.github.io/{repository-name}

Tutorial: [How to Host a Website On Github Pages (youtube.com)](youtube.com)

Part 4: Bootstrap: [Introduction · Bootstrap v4.6 (getbootstrap.com)](getbootstrap.com)

Build fast, responsive sites with Bootstrap

Powerful, extensible, and feature-packed frontend toolkit. Build and customize with Sass, utilize prebuilt grid system and components, and bring projects to life with powerful JavaScript plugins.

start_bootstrap.html

```html
<!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://cdn.jsdelivr.net/npm/bootstrap@4.6.2/dist/css/bootstrap.min.css">
  <script
src="https://cdn.jsdelivr.net/npm/jquery@3.7.1/dist/jquery.slim.min.js"></script>
  <script
src="https://cdn.jsdelivr.net/npm/popper.js@1.16.1/dist/umd/popper.min.js"></scrip
t>
  <script
src="https://cdn.jsdelivr.net/npm/bootstrap@4.6.2/dist/js/bootstrap.bundle.min.js"
></script>
</head>
<body>

<div class="jumbotron text-center">
  <h1>My First Bootstrap Page</h1>
  <p>Resize this responsive page to see the effect!</p>
</div>

<div class="container">
  <div class="row">
    <div class="col-sm-4">
      <h3>Column 1</h3>
      <p>Lorem ipsum dolor sit amet, consectetur adipisicing elit...</p>
      <p>Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris...</p>
    </div>
    <div class="col-sm-4">
      <h3>Column 2</h3>
      <p>Lorem ipsum dolor sit amet, consectetur adipisicing elit...</p>
      <p>Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris...</p>
    </div>
    <div class="col-sm-4">
      <h3>Column 3</h3>
      <p>Lorem ipsum dolor sit amet, consectetur adipisicing elit...</p>
      <p>Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris...</p>
    </div>
  </div>
</div>

</body>
</html>
```

Now check out by yourself the Bootstrap compone and try to apply it Bootstrap 4 Tutorial (w3schools.com) or Examples · Bootst+rap v4.6 (getbootstrap.com)

Exercise 1: You create a form like this:

After input information and click "Submit" button, the result like this:
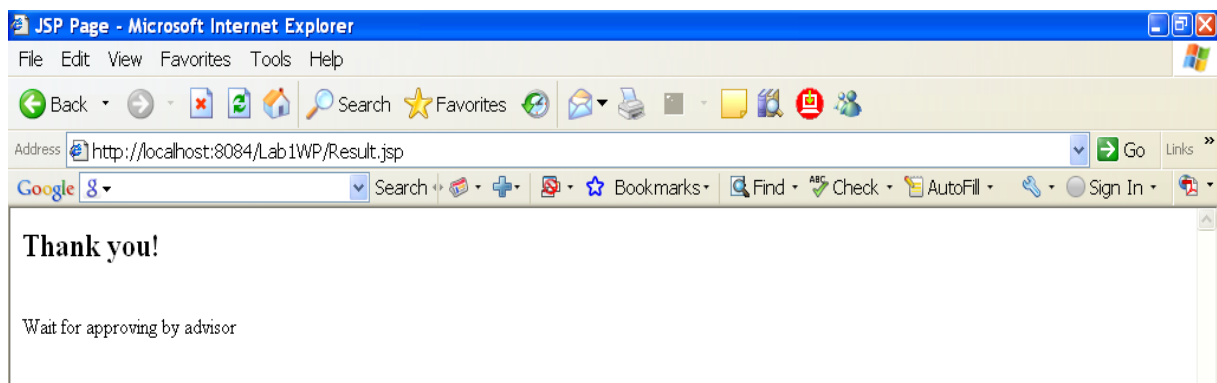
Bonus: Applying Bootstrap to your form.

Exercises 2:

Design a page as follows (using html). Each title "Thời sự", "Thế giới", "Kinh tế", etc., is a link that is connected to that html page (these pages you just need use blank pages)
Bonus: Applying Bootstrap to your page

Exercises 3 (40 pts):

Rough mockups of the website structure for mobile and desktop devices are given below. Do not worry about the design details i.e. colors backgrounds etc at this stage; we are not looking for a beautiful design, but a well-structured and responsive website. Just focus on making the layout same as the mockup and ensuring it looks good on different screen sizes.

Submission Requirements

Your submission should include:

- You need to do it from scratch for exercise 3
- Proper use of CSS techniques like Flexbox, media queries, and the box model.
- Use Google Fonts to enhance the typography of your website.

Exercises 4 (40 pts): Improve exercise 3 using Bootstrap
- A fully styled, responsive website with the same structure as the previous project.
- A responsive navigation bar and well-styled contact form.
- Look into GitHub Pages or Cloudflare Pages to host your website for free.
- Add support for dark mode using CSS variables.

Exercise 5 (20 pts): Deploy the personal web pages you which do on previous lab to the github.io and submit the link via your report.

For each exercise, hold your source code in separate folder. Capture your page, your code in the pdf report.

--- The end ---