

WEB PROGRAMMING AND APPLICATIONS

(503073)

LAB 1

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Lab Objectives

By the end of this lab, students will be able to:

1. Understand and create basic HTML page structures using various elements such as tables, lists, forms, and multimedia.
2. Develop and design simple web pages incorporating interactive features like login and registration forms.
3. Utilize inline CSS for basic styling within HTML elements.
4. Embed multimedia content like video and audio in web pages.
5. Use Visual Studio Code and Live Server to build, preview, and debug HTML documents efficiently.

Preparation Requirements

1. Install Visual Studio Code on your computer.
2. Set up the Live Server extension in Visual Studio Code.
3. Ensure basic familiarity with the HTML syntax.
4. Prepare sample content (e.g., images, videos, and audio files) to use in your web pages.

Exercise 1. About Page

In this exercise, create a basic web page structure using an HTML table with 3 columns. Each column should display user information, including an image (using the `` tag), the user's name and position (using appropriate heading tags like `<h2>` or `<h3>`), a short description (using a `<p>` tag), and a list of the user's skills or expertise (using `` and `` tags). The goal is to organize the content in a clean and readable format using basic HTML elements.

About us page

Some text about who we are and what we do.
Resize the browser window to see that this page is responsive by the way.

Our Team

 <p>Jane Doe CEO & Founder Some text that describes me lorem ipsum ipsum lorem. Specializes in</p> <ul style="list-style-type: none">• Javascript• C/C++• Java <p>Contact</p>	 <p>Johnny Depp Product Owner Some text that describes me lorem ipsum ipsum lorem. Specializes in</p> <ul style="list-style-type: none">a. Objective Cb. Swiftc. C/C++ <p>Contact</p>	 <p>Luke Evans Team Leader Some text that describes me lorem ipsum ipsum lorem. Specializes in</p> <ul style="list-style-type: none">◦ C#◦ Visual Basic◦ Typescript <p>Contact</p>
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The images should be responsive: their size will be increased automatically when we increase browser size (and vice versa).

Exercise 2. Design a Login Form

Email	<input type="text" value="email@domain.com"/>
Password	<input type="password" value="....."/>
Remember me	<input type="checkbox"/>
<input type="button" value="Login"/>	
Not registered? Create an account	
Forgot your password? Click here to reset	

Email	<input type="text" value="email@domain.com"/>
Password	<input type="password"/> ! Please fill out this field.
Remember me	<input type="checkbox"/>
<input type="button" value="Login"/>	
Not registered? Create an account	
Forgot your password? Click here to reset	

In this exercise, design a basic login form with two text fields, a checkbox, and a button. Include two links that redirect to relevant pages. The form should be placed inside a hidden HTML table to align the elements properly. The form must send two pieces of information, 'email' and 'password', to the server at <http://localhost/login.php> using the **POST** method. Additionally, apply the default HTML form validation to ensure the text fields cannot be left empty, and that the email address entered is in the correct format.

3. HTML TABLE

Create an HTML table similar to the following table.

STUDENT SCHEDULE				
DAY/PERIOD	I	II	III	IV
MONDAY	Math	Physics		
TUESDAY	LAB			
WEDNESDAY	History	Music	SEMINAR	
THURSDAY	Physical Education	Swimming	Chemistry	Biology
FRIDAY	LAB		Geography	Informatics
SATURDAY	Math	Physics	LAB	
SUNDAY				Homework

Requirements:

1. All text contents are center aligned in every cell, both vertically and horizontally.
2. The merged cells are filled with a background color.

Hints:

1. Use the `<table>` tag for the entire table. Inside it are `<tr>` tags with each tag representing a table row. Each `<tr>` tag contains a list of `<td>` tags that represent table cells.
2. Use the `rowspan` attribute on the `<td>` tag to combine cells between different rows into one large cell. Similarly, use the `colspan` attribute on the `<td>` tag to combine cells from different columns into one large cell. These two properties can be used at the same time to create a large cell in both directions.

4. REGISTER FORM

Requirements:

1. All form control elements should be left aligned.
2. For "Gender" field, only one option can be selected at a time.
3. For "Favorite IDE" and "Message" fields, their labels should be placed on top of the section.
4. If **Again** button is clicked, all input element values will be restored to their default value.

Your Name	<input type="text" value="Full Name"/>
Email Address	<input type="text" value="Email"/>
Birthday	<input type="text" value="mm/dd/yyyy"/> 
Birthtime	<input type="text" value="-- : --"/> 
Gender	<input type="radio"/> Male <input type="radio"/> Female
From	<input type="text" value="Select a country"/> 
Favorite IDE	<input type="checkbox"/> Visual Studio Code <input type="checkbox"/> Sublime Text <input type="checkbox"/> Eclipse <input type="checkbox"/> Atom <input type="checkbox"/> Intelij Idea
TOEIC Score	<input type="text" value="100"/>
Message	<input type="text"/>
<input type="button" value="Register"/> <input type="button" value="Again"/>	

Birthday	<input type="text" value="12/09/2020"/> 																																			
Birthtime	<input type="text" value="December 2020"/> 																																			
Gender	<input type="radio"/> M <input type="radio"/> T <input type="radio"/> W <input type="radio"/> T <input type="radio"/> F <input type="radio"/> S <input type="radio"/> S																																			
From	<input type="text" value="Asia"/> 																																			
Favorite IDE	<table border="1"> <tr><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td></tr> <tr><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td></tr> <tr><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td></tr> <tr><td>28</td><td>29</td><td>30</td><td>31</td><td>1</td><td>2</td><td>3</td></tr> <tr><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr> </table>	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10
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28	29	30	31	1	2	3																														
4	5	6	7	8	9	10																														
TOEIC Score	<input type="text" value="100"/>																																			
Message	<input type="text"/>																																			
<input type="button" value="Today"/>																																				

Birthtime	<input type="text" value="21:24"/> 																					
Gender	<input type="radio"/> Male <input checked="" type="radio"/> Female																					
From	<input type="text" value="Visual Studio Code"/> 																					
Favorite IDE	<table border="1"> <tr><td>21</td><td>24</td><td>Code</td></tr> <tr><td>22</td><td>25</td><td></td></tr> <tr><td>23</td><td>26</td><td></td></tr> <tr><td>00</td><td>27</td><td></td></tr> <tr><td>01</td><td>28</td><td></td></tr> <tr><td>02</td><td>29</td><td></td></tr> <tr><td>03</td><td>30</td><td></td></tr> </table>	21	24	Code	22	25		23	26		00	27		01	28		02	29		03	30	
21	24	Code																				
22	25																					
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01	28																					
02	29																					
03	30																					
TOEIC Score	<input type="text" value="100"/>																					
Message	<input type="text"/>																					

<input checked="" type="radio"/> Male <input type="radio"/> Female
<input type="checkbox"/> Select a country
Asia
Vietnam
Laos
Cambodia
Singapore
Europe
France
Belgium
Italy
Finland
Ireland

The form must submit its information to <http://localhost/register.php> using HTML **POST** method. The server expects to receive an **x-www-form-urlencoded** body containing the following keys: **name**, **email**, **birthday**, **birthtime**, **gender**, **country**, **favorite_ide**, **toeic**, **message**.

- For gender field: its value must be either 'male' or 'female'.
- For toeic field: the maximum value is **990**, minimum value is **5** and each step would increase or decrease the value by a factor of **5**.

Exercise 5. Build a simple website utilizing HTML following the structure depicted in the provided **ex5.jpg** image. The website should exclusively employ basic HTML tags, including headings, links, tables, images, and paragraphs. For the image, you can utilize the following URL:
<https://via.placeholder.com/600x300>.

Exercise 6. Create a simple HTML website that enables users to play an MP3 song and an MP4 video. You have the flexibility to choose any MP3 or MP4 file for this purpose.

Welcome to My Awesome Website

- [Home](#)
- [About](#)
- [Services](#)
- [Contact](#)

Home Section

Welcome to our vibrant and dynamic website! Explore the latest trends and innovations.

600 x 300

About Section

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nullam in lorem ut dolor dapibus dapibus. Integer euismod, odio nec vulputate cursus, leo libero hendrerit ligula, id cursus tortor sapien eget purus.

- Meet our talented team
- Learn about our mission and values
- Discover our journey

Services Section

Service 1	Service 2	Service 3
Experience excellence with our first-class service.	Unlock new possibilities with our innovative solutions.	Exceptional service that exceeds expectations.

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Exercise 5

Welcome to the HTML5 Media Website

Audio

▶ 1:18 / 6:12

🔊
⋮

Video

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Exercise 6