

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Web Technologies and Programming

Lecture 09

Tables in HTML

Summary of the previous lecture

- **Adding images to web page**
- **Using images as links**
- **Image map**
- **Adding video to web page**
- **Adding audio o web page**

Outline

- **How to create tables**
- **Page lay-out using tables**

1. Creating HTML tables

- **Tables display information in rows and columns**
- **Tables are commonly used to display all manner of data that fits in a grid such as train schedules, television listings, financial reports etc.**

1. Creating HTML tables

- An HTML table consists of the `<table>` element and one or more elements like
 - `<tr>`
 - `<th>`
 - `<td>`
- **Tables** are divided into **table rows** with the `<tr>` tag.
- **Table rows** are divided into **table data** with the `<td>` tag.
- A **table row** can also be divided into **table headings** with the `<th>` tag.

1. Creating HTML tables...

- In HTML **<table>** tag is used to start a table while **</table>** tag indicates the end of the table

<table>

Table Structure

</table>

- **<tr>** tag starts a row of the table and **</tr>** ends the row
- **<td>** is used to create a cell inside the row while **</td>** ends the cell

1. Creating HTML tables...

- The **contents** of the cell are written between **<td>** and **</td>** tags
- **<th>** tag is used to declare the cell of the heading row of the table

1. Creating HTML tables...

- An HTML Table with a Border Attribute
- If you **do not specify a border** for the table, it will be displayed without borders.
- **A border can be added** using the border attribute:
- `<table border="1">`

1. Creating HTML tables...

```
<table border="1">
```

```
<tr>
```

```
<td> Name </td>
```

```
<td> Registration No. </td>
```

```
</tr>
```

```
<tr>
```

```
<td>Ali</td>
```

```
<td>FA13-BCS-001</td>
```

```
</tr>
```

```
</table>
```

Name	Registration No.
Ali	FA13-BCS-001

1. Creating HTML tables...

```
<!DOCTYPE html>
<html>
<body>

<table border="1" style="width:100%">
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
  <tr>
    <td>John</td>
    <td>Doe</td>
    <td>80</td>
  </tr>
</table>

</body>
</html>
```

1. Creating HTML tables...

Jill	Smith	50
Eve	Jackson	94
John	Doe	80

1.1 Table Attributes

- **Table level attributes**
- **Row level attributes**
- **Cell level attributes**

1.1.1 Table Attributes

- The **Border** Attribute: Indicates the presence of the border around the table
 - `<table border="1">`
- The **align** Attribute:
 - `<table align="center">`
 - Other values for align are
 - » Center
 - » Left
 - » right

1.1.1 Table Attributes

- The **bgcolor** Attribute: sets the background color of the table
 - `<table bgcolor="gray">`
- The **background** Attribute: sets the specified image at the background of the table
 - `<table background="image-title">`

1.1.1 Table Attributes...

- The **height** and **width** Attributes:
- The **cellpadding** Attribute:
 - The cell padding attribute is used to create a **gap** between the edges of a cell and its contents
 - `<table cellpadding="50">`

1.1.1 Table Attributes...

- The **height** and **width** Attributes:
- The **cellspacing** Attribute:
 - The **cellspacing** attribute is used to create a **space** between the borders of each cell

1.1.1 Table Attributes...

```
tableattributes - Notepad
File Edit Format View Help
<html>
<head>
<title> Creating Table </title>
</head>
<body>
<h1>Creating Tables in HTML</h1>
<table border="1" align="center"
cellspacing="50" cellpadding="50"
height="50" width="100" bgcolor="lightblue">
<tr>
<th>Name</th>
<th>Subject</th>
<th>Marks</th>
</tr>
<tr>
```

1.1.1 Table Attributes...

Creating Table - Google Chrome

file:///C:/Users/Administrator/Desktop/Web%20Engineering%20for%20Virtual%20Campus/Lectures/Lecture%2014%20(HTML%20tables)/example/tableattributes.

Creating Tables in HTML

cell padding

cell spacing

Height

Width

Name	Subject	Marks
Basharat	Web Engineering	75

1.1.1 Table Attributes...

- **Differences Between HTML 4.01 and HTML5**

The "align", "bgcolor", "cellpadding", "cellspacing", "frame", "rules", "summary", and "width" attributes **are not supported in HTML5.**

1.1.2 Row level attributes

- The **align** Attribute:

Aligns content of the row

- `<tr align="center, right or left">`

- The **bgcolor** Attribute:

Apply background color to row

- `<tr bgcolor="gray">`

- The **background** Attribute:

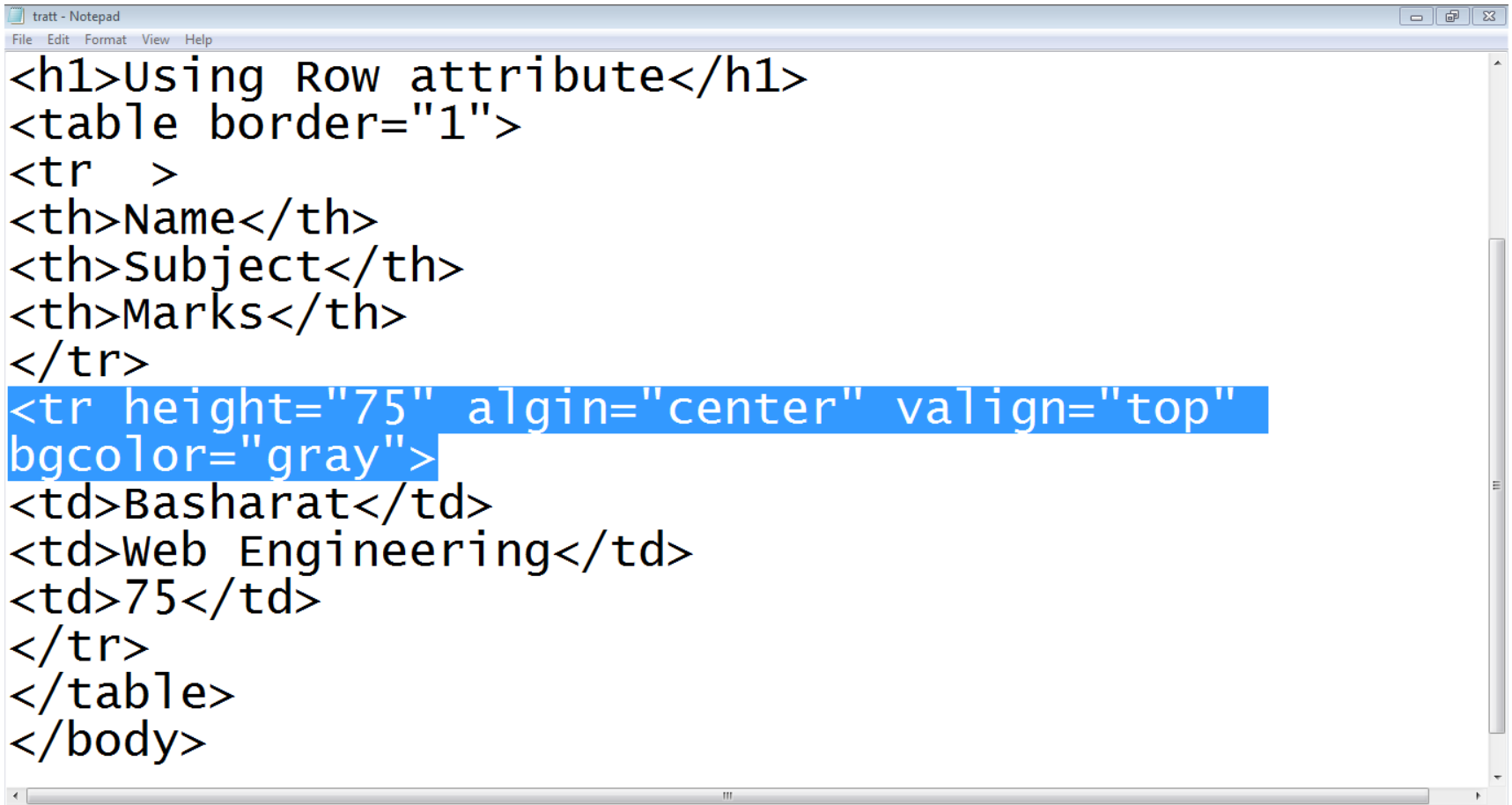
Adds image as the background of row

- `<tr background="image-name">`

1.1.2 Row level attributes

- The **height** Attributes:
- Change height on table row
 - `<tr height="20" >`
- The **width** Attributes:
- Change width of the row
 - `<tr width="20">`
- The **valign** Attributes:
- Changes row vertical alignment
 - `<tr valign="top, middle or bottom">`

1.1.2 Row level attributes...



```
tratt - Notepad
File Edit Format View Help
<h1>Using Row attribute</h1>
<table border="1">
<tr >
<th>Name</th>
<th>Subject</th>
<th>Marks</th>
</tr>
<tr height="75" align="center" valign="top"
bgcolor="gray">
<td>Basharat</td>
<td>Web Engineering</td>
<td>75</td>
</tr>
</table>
</body>
```


1.1.2 Row level attributes...

Table Attributes - Google Chrome

file:///C:/Users/Administrator/Desktop/Web%20Engineering%20for%20Virtual%20Campus/Lectures/Lecture%2014%20(HTML%20tables)/example/tratt.html

Using Row attribute

Vertical Align

Row Height

Name	Subject	Marks
ALI	Web Engineering	75

1.1.3 Cell level attributes

- The **align** Attribute:
 - `<td align="center, right or left">`
- The **bgcolor** Attribute:
- The **height and width** Attributes:
- The **valign** Attributes:

1.1.3 Cell level attributes

- The **rowspan** Attributes:
- used when a cell should span across **more than one rows**
- The **colspan** Attribute:
- used when a cell should span across **more than one column**

1.1.3 Cell level attributes...

```
<table border="1">
```

```
<tr>
```

```
<td rowspan="2">Name</td>
```

```
<td colspan="2">Subjects</td>
```

```
</tr>
```

```
<tr>
```

```
<td>OOP</td>
```

```
<td>DB</td>
```

```
</tr>
```

```
<tr>
```

```
<td>ALi</td>
```

```
<td>75</td>
```

```
<td>80</td>
```

```
</tr>
```

```
</table>
```

Name	Subjects	
	OOP	DB
ALi	75	80

1.2 Creating HTML tables Caption

- **An HTML Table With a Caption**
- To add a caption to a table, use the **<caption>** tag:

1.2 Adding caption to the table

- **<caption>** tag is used to add a caption of the table
- We usually add caption before the first row of the table

1.2 Creating HTML table caption

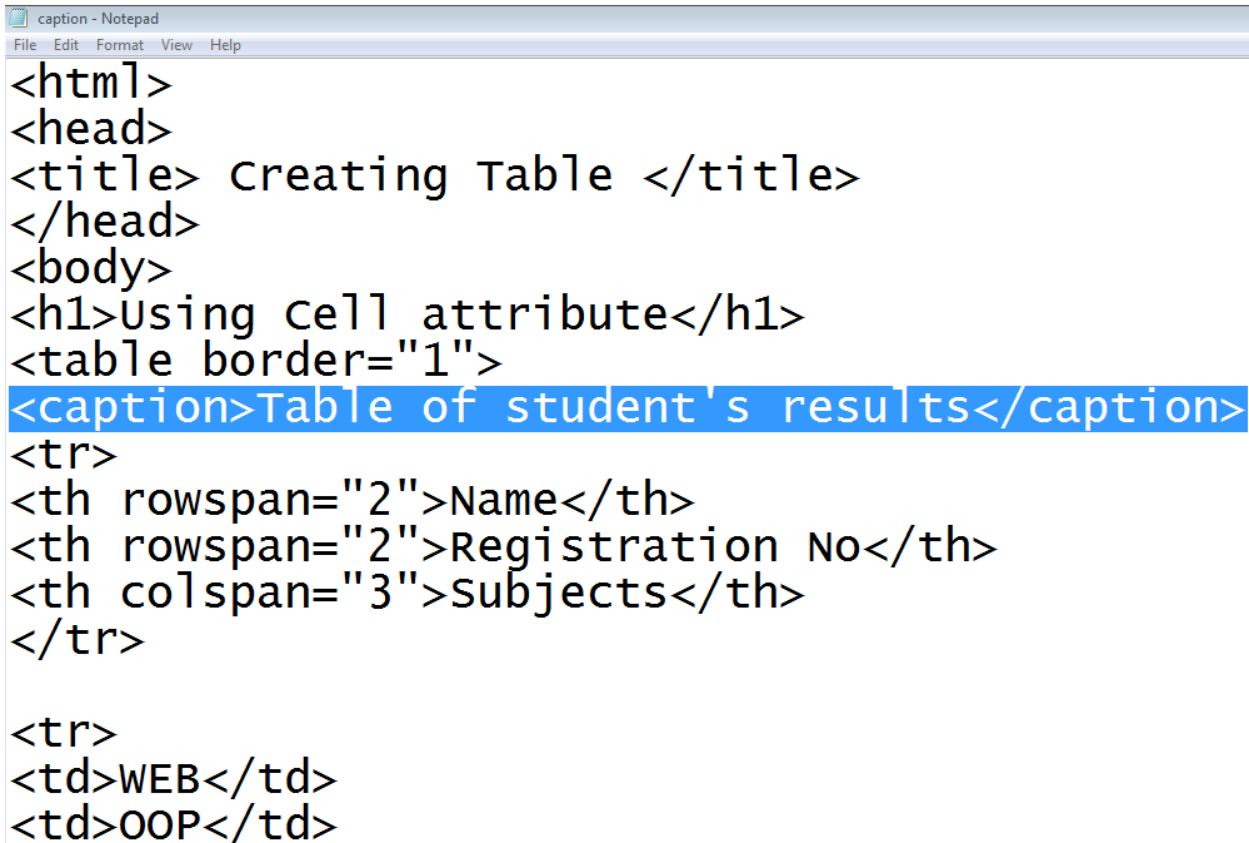
- **An HTML Table With a Caption**
- To add a caption to a table, use the **<caption>** tag:

1.2 Creating HTML tables Caption

Example

```
<table style="width:100%">  
  <caption>Monthly savings</caption>  
  <tr>  
    <th>Month</th>  
  </tr>  
  <tr>  
    <td>January</td>  
  </tr>  
</table>
```


1.2 Adding caption to the table...



```
<html>
<head>
<title> Creating Table </title>
</head>
<body>
<h1>Using cell attribute</h1>
<table border="1">
<caption>Table of student's results</caption>
<tr>
<th rowspan="2">Name</th>
<th rowspan="2">Registration No</th>
<th colspan="3">Subjects</th>
</tr>

<tr>
<td>WEB</td>
<td>OOP</td>
```

1.2 Adding caption to the table...

Using Cell attribute

Caption



Table of student's results

Name	Registration No	Subjects		
		WEB	OOP	DB
Basharat	FA09-RCS-001	79	79	79
Basharat	FA09-RCS-001	79	79	79

1.3 Creating HTML tables - id attribute

A Special Style for One Table

To define a special style for a special table, add an **id attribute** to the table:

1.3 Creating HTML tables - id attribute

A Special Style for One Table

Example

```
<table id="t01">  
  <tr>  
    <th>Firstname</th>  
    <th>Lastname</th>  
    <th>Points</th>  
  </tr>  
  <tr>  
    <td>Eve</td>  
    <td>Jackson</td>  
    <td>94</td>  
  </tr>  
</table>
```

2. Page Layout using Tables


- **We can use tables to define the structure of the web page**

2. Page Layout using Tables

Tables for page layout - Google Chrome

file:///C:/Users/Administrator/Desktop/Web%20Engineering%20for%20Virtual%20Campus/Lectures/Lecture%2014%20(HTML%20tables)/example/page.html

Header




COMSATS institute of Information Technology

Links

- [Home](#)
- [Electrical Eng Department](#)
- [Computer science Department](#)
- [Physics Department](#)
- [Library](#)

Body

In this technology pervasive environment, the attainment of higher education is becoming a much sought after goal of the youth of the nation. I am positive that for the academic and research pursuits, COMSATS Institute of Information Technology (CIIT) is the most preferred destination for the best students, teachers, researchers and scholars. Our motto: 'join the best to bring out the best.' Since its establishment in 2000, the CIIT has always been at the forefront of innovations and has played an active part in shaping the modern day higher education. It has around 23,000 full time students studying a wide range of undergraduate, postgraduate and research degree programs.



By offering a broad range of disciplines the CIIT encompasses the issues that are of real interest to professionals, prospective employers and to you as students. Our institution has more than 3,048 academic and active research staff. Many of our faculty members are academics of world renown and they are doing research at the cutting edge of the respective disciplines. The expertise is reflected in our teaching and has made this institution a credible center of excellence both in quality teaching and research.

Alongside such finesse in academic performance, the institute takes pride in the strong links it has established with business and industry, which helps students understand and experience the dynamics of the market place. Our growing international reputation is evident in the prestigious exchange agreements (MoUs) the CIIT holds with some of the best institutions, the notable being the University of Illinois at Urbana-Champaign (USA), Harbin Institute of Technology (China), University of Essex (UK) and many others.

The CIIT also recognizes that our students, while facing a highly competitive technological environment would be functioning at higher levels. As such, the CIIT places a strong emphasis on preparing the students for the work place. The employers recognize the value of a degree from the CIIT and our graduates are among the highest paid in the country. Our career development offices have made positive headway in this direction and the employers rate our career services as most proactive.

Footer

© All rights reserved

2. Page Layout using Tables...

Header

```
</head>
<body>
<table border="1" height="100%" width="80%" align="center">
<tr height="15%">
<td colspan="2">&nbsp;</td>
</tr>
<tr height="80%">
<td width="20%">&nbsp;</td>
<td width="80%">&nbsp;</td>
</tr>
<tr height="5%">
<td colspan="2">&nbsp;</td>
</tr>
</table>
</body>
</html>
```

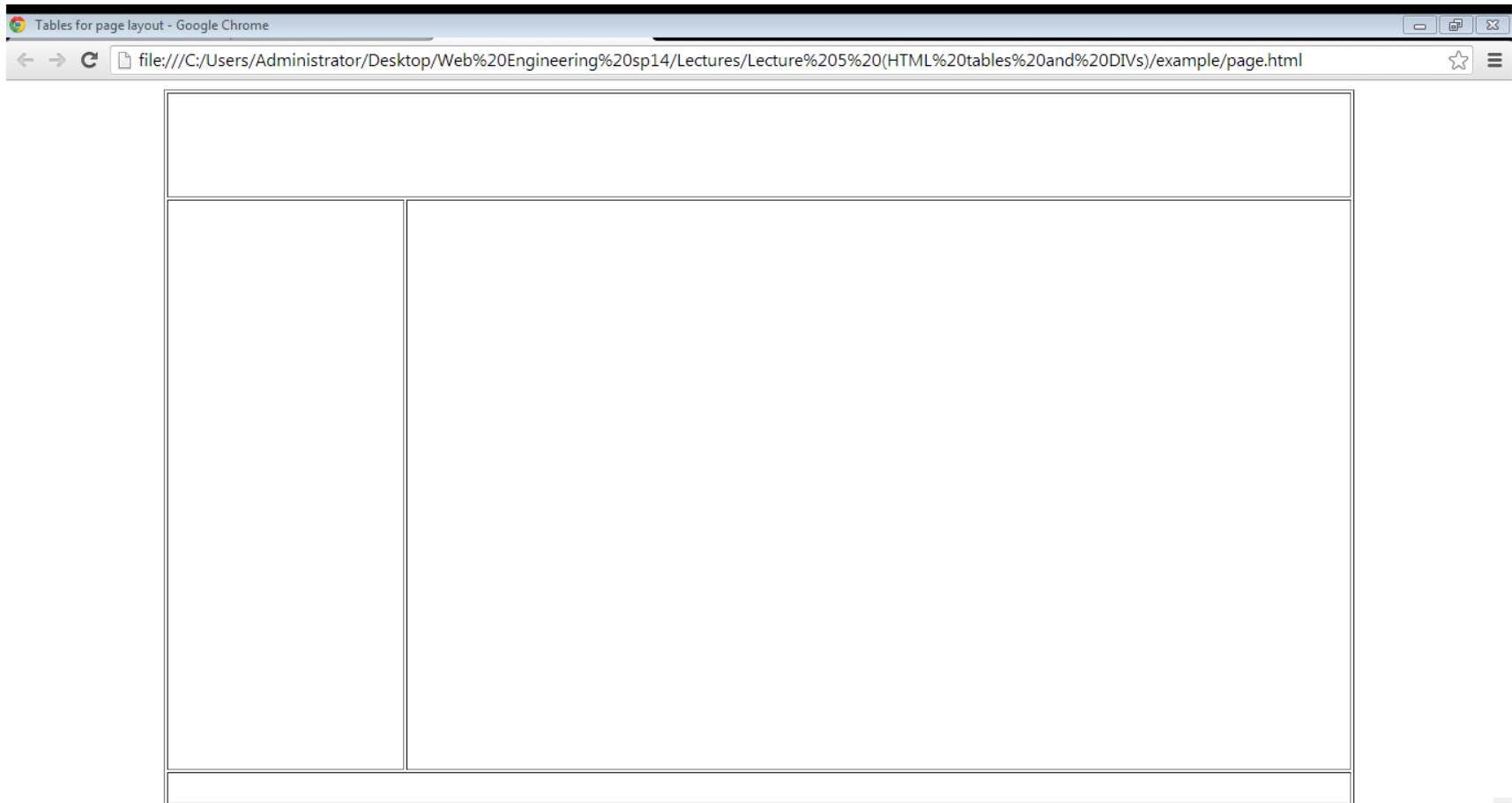
Body and links

Footer

Example: Step 1 (Structure of the page)

2. Page Layout using Tables...

Example: Step 1 (Structure of the page)



The screenshot shows a web browser window with the title "Tables for page layout - Google Chrome". The address bar displays the file path: `file:///C:/Users/Administrator/Desktop/Web%20Engineering%20sp14/Lectures/Lecture%205%20(HTML%20tables%20and%20DIVs)/example/page.html`. The main content area displays a table structure representing a page layout. The table has three rows and two columns. The first row is a single cell spanning both columns. The second row is divided into two columns of equal width. The third row is a single cell spanning both columns, serving as a footer.

2. Page Layout using Tables...

Example: Step 2 (Header section)

```
page - Notepad
File Edit Format View Help
</head>
<body>
<table border="1" height="100%" width="80%" align="center">

<tr height="15%">
<td colspan="2" bgcolor="lightblue" align="center">
<font color="green" size="7">

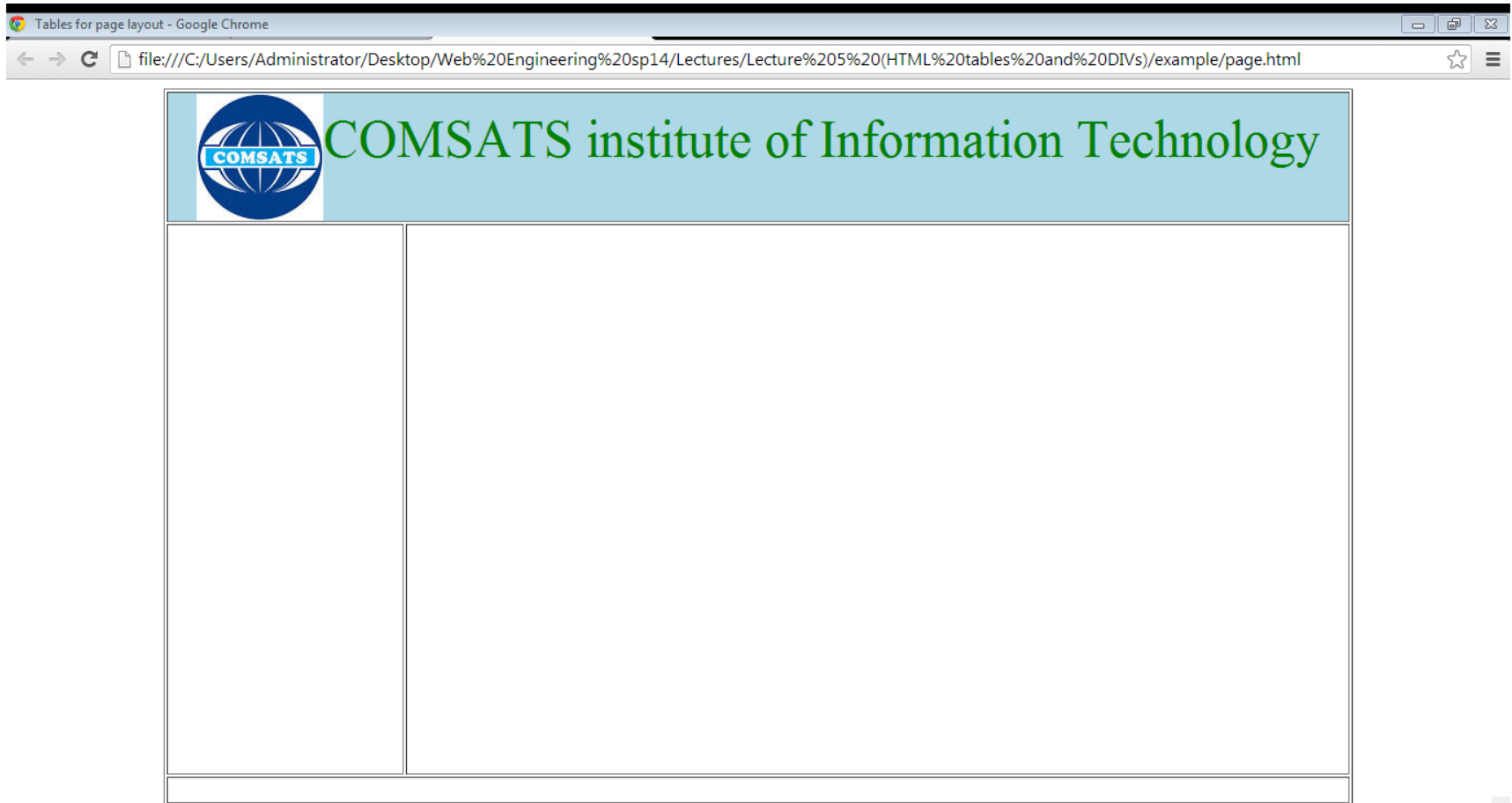
COMSATS institute of Information Technology
</font>
</td>
</tr>

<tr height="80%">
<td width="20%">&nbsp;   </td>
<td width="80%">&nbsp;   </td>
```

Adding Logo

Title

1.5. Page Layout using Tables...



Example: Step 2 (Header section)

2. Page Layout using Tables...

Links table

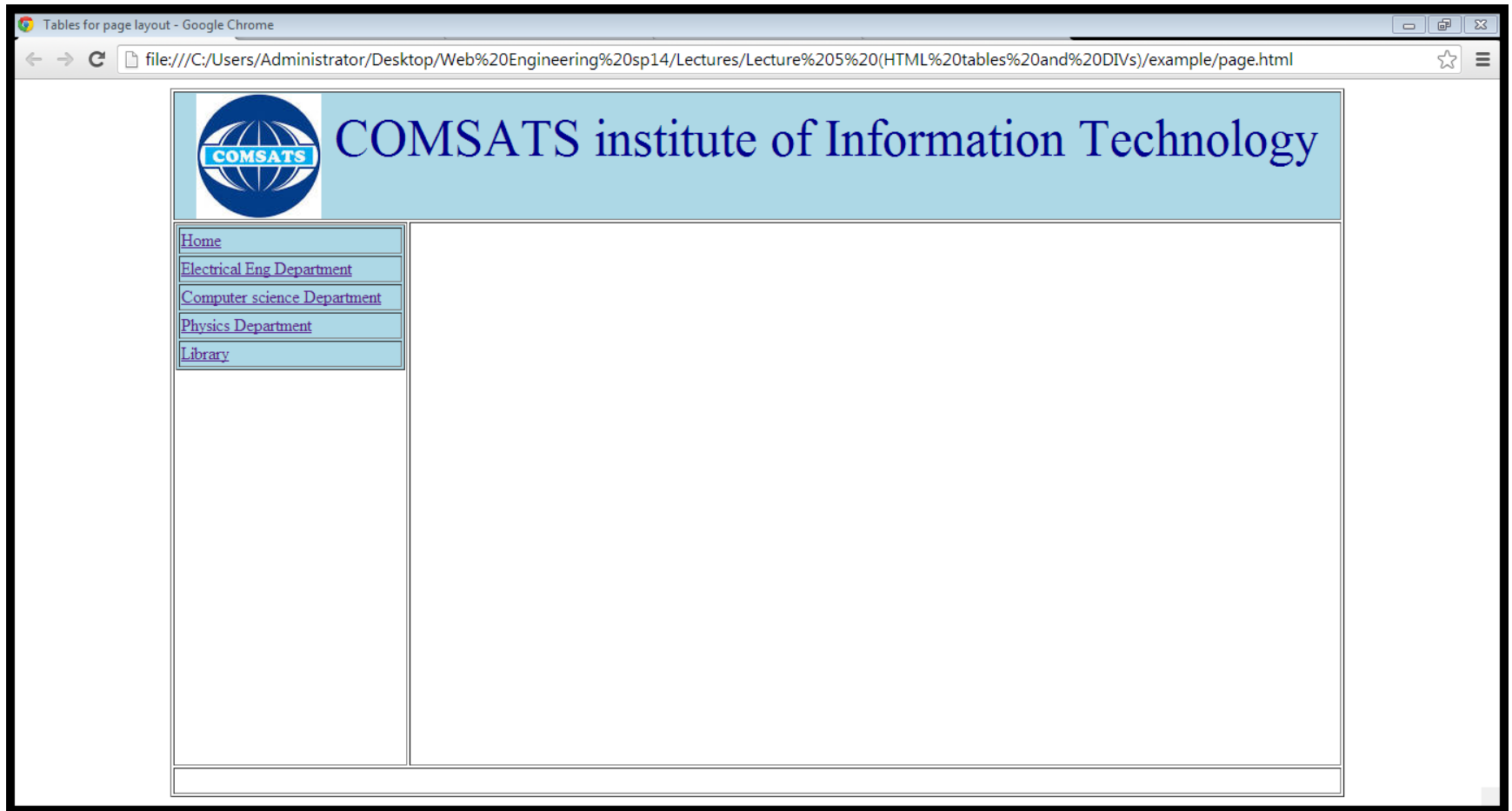


The screenshot shows a Notepad window titled 'page - Notepad' with a menu bar (File, Edit, Format, View, Help). The text area contains HTML code for a table. A red bracket on the left side of the code, labeled 'Links table', groups the table structure. The code is as follows:

```
<td width="20%" valign="top">
<table border=1 bgcolor="lightblue" width="100%">
<tr>
<td><a href="page.html">Home</a></td>
</tr>
<tr>
<td><a href="http://ww3.comsats.edu.pk/ee/">Electrical Eng De
</tr>
<tr>
<td><a href="http://ww3.comsats.edu.pk/cs/">Computer science
</tr>
<tr>
<td><a href="http://ww3.comsats.edu.pk/phy/">Physics Departme
</tr>
<tr>
<td><a href="page.html">Library</a></td>
</tr></table></td>
```

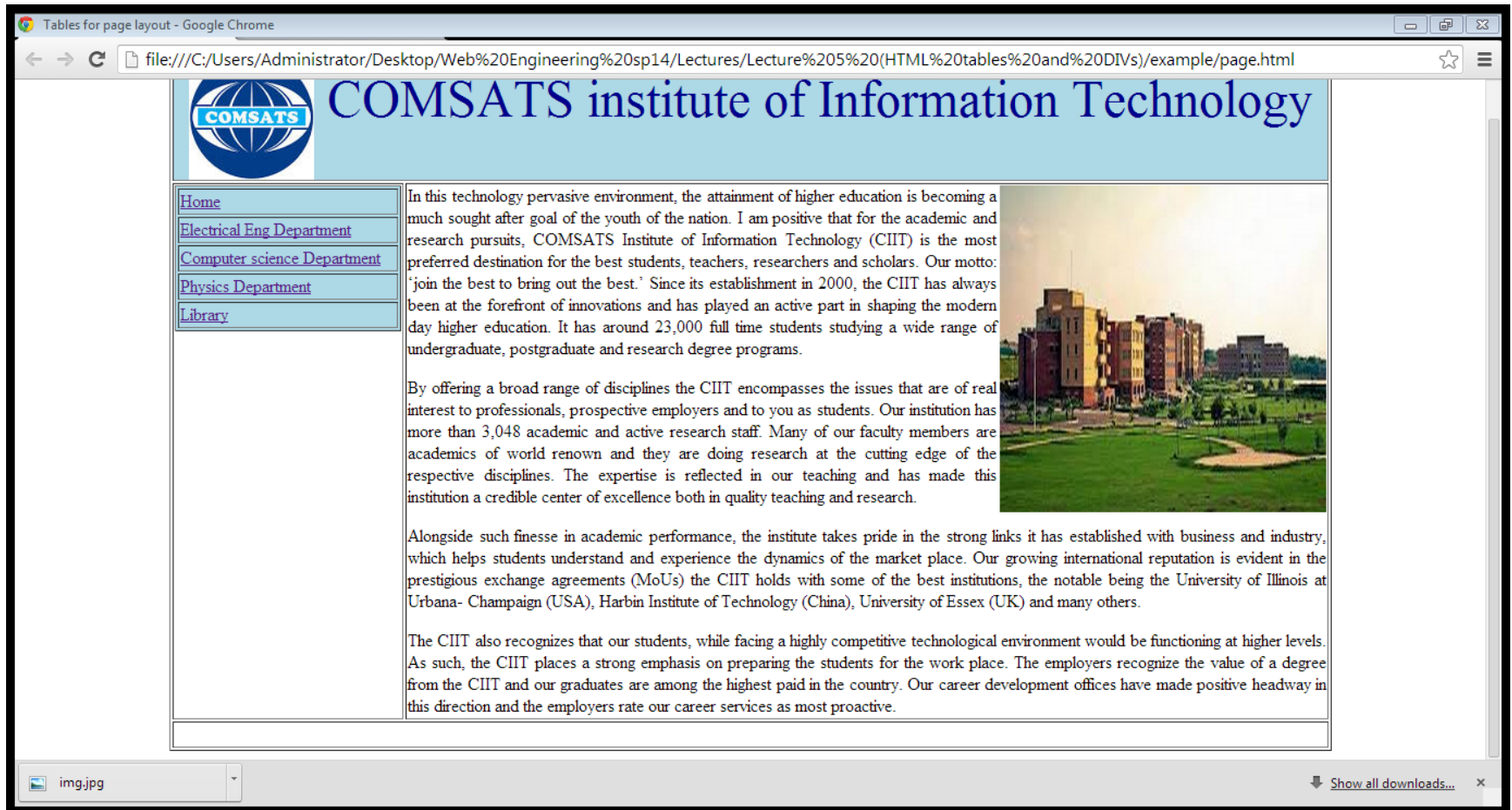
Example: Step 3 (Links section)

2. Page Layout using Tables...



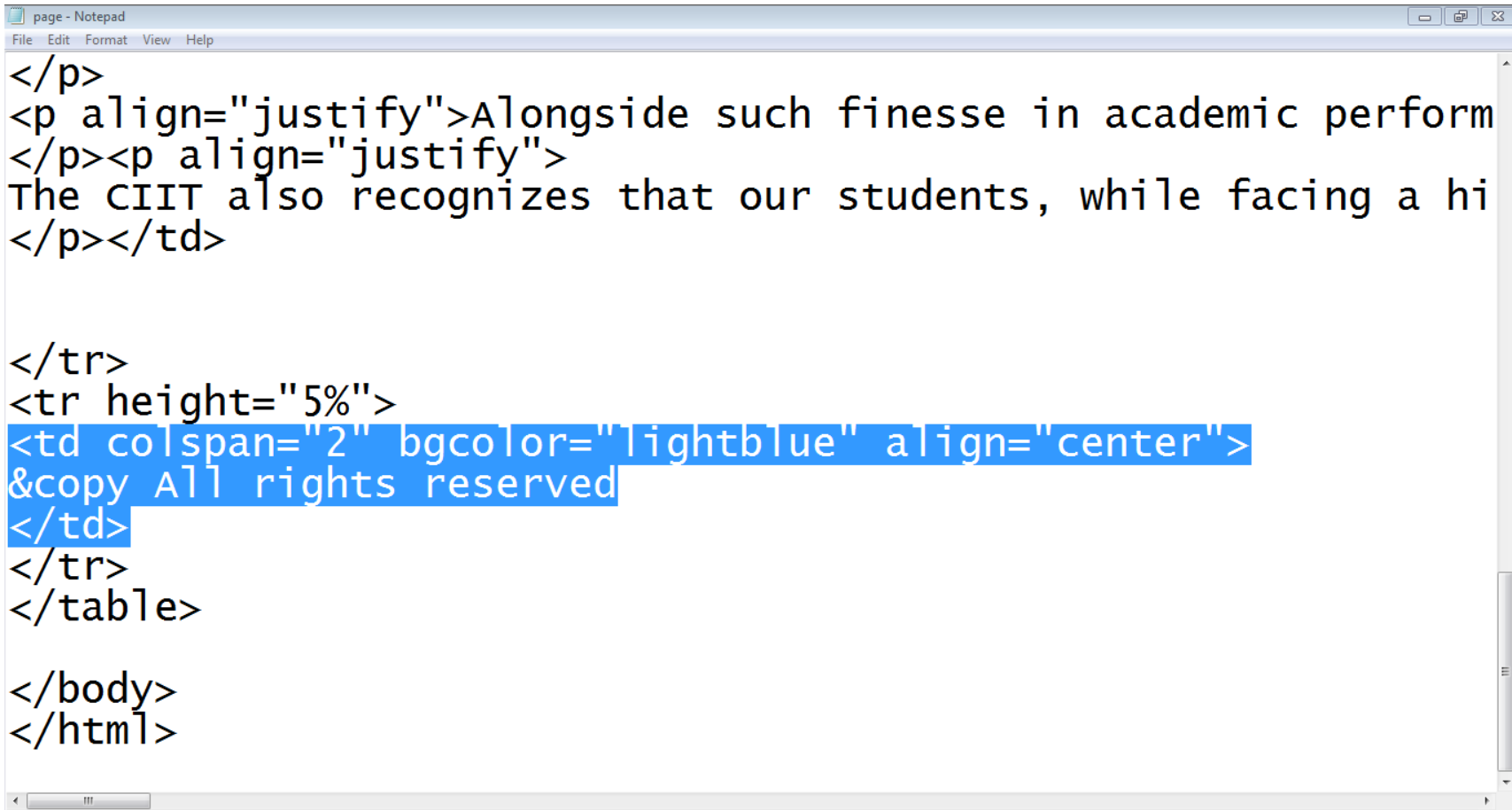
Example: Step 3 (Links section)

2. Page Layout using Tables...



Example: Step 4 (body section)

2. Page Layout using Tables...



```
</p>
<p align="justify">Alongside such finesse in academic perform
</p><p align="justify">
The CIIT also recognizes that our students, while facing a hi
</p></td>

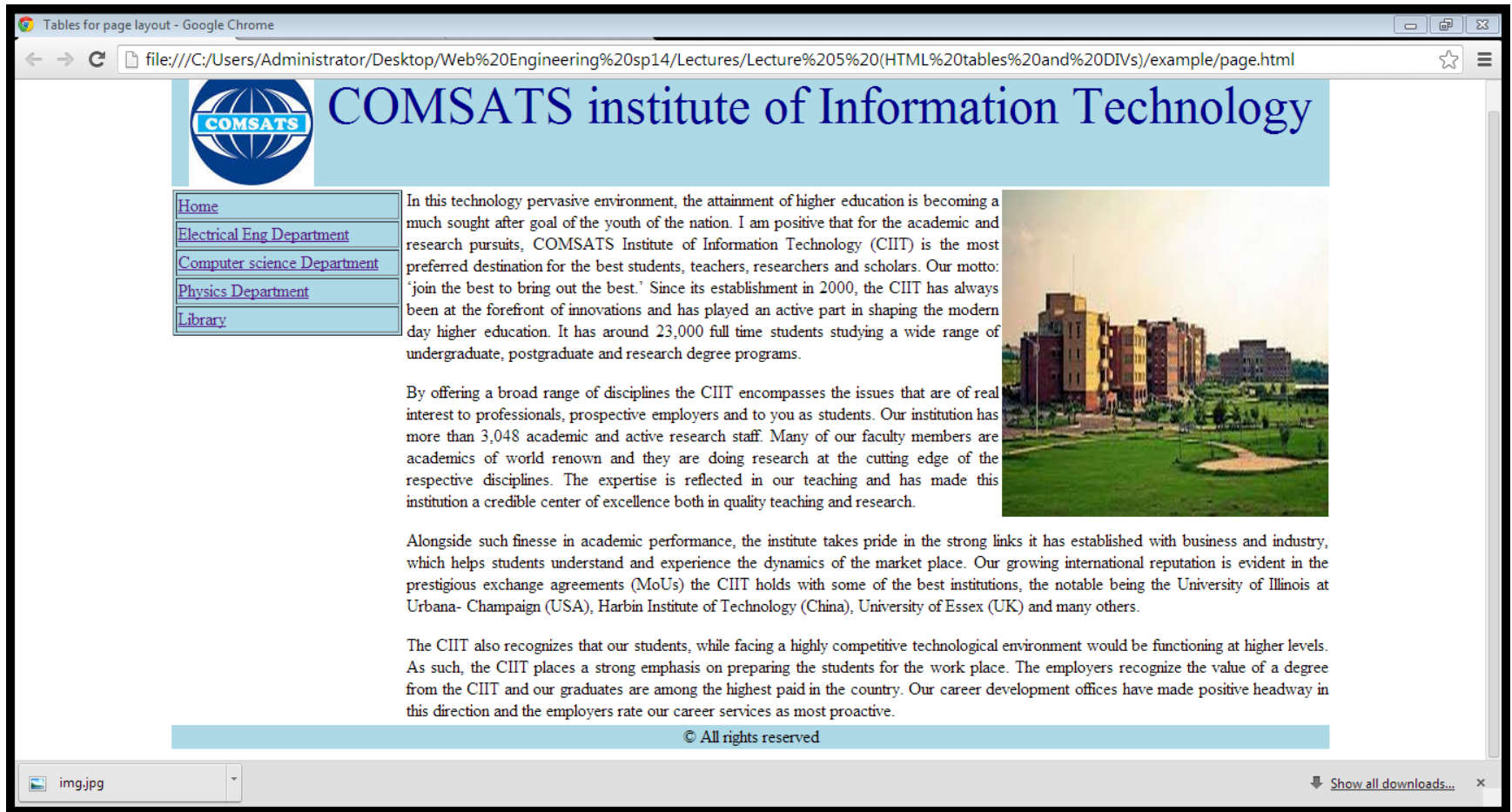
</tr>
<tr height="5%">
<td colspan="2" bgcolor="lightblue" align="center">
&copy All rights reserved
</td>
</tr>
</table>

</body>
</html>
```

Footer

Example: Step 5 (footer section)

2. Page Layout using Tables...



Example: Step 5 (footer section)

Summary

- Use the HTML **<table>** element to define a table
- Use the HTML **<tr>** element to define a table row
- Use the HTML **<td>** element to define a table data
- Use the HTML **<th>** element to define a table heading
- Use the HTML **<caption>** element to define a table caption
- Use the CSS **border** property to define a border
- Use the CSS **padding** property to add padding to cells
- Use the CSS **text-align** property to align cell text
- Use the CSS **border-spacing** property to set the spacing between cells
- Use the **colspan** attribute to make a cell span many columns
- Use the **rowspan** attribute to make a cell span many rows
- Use the **id** attribute to uniquely define one table

Summary

- **Creating tables in HTML**
- **Table attributes**
 - Table level attributes
 - Row level attributes
 - Cell level attributes
- **Page lay-out using tables**

THANK YOU