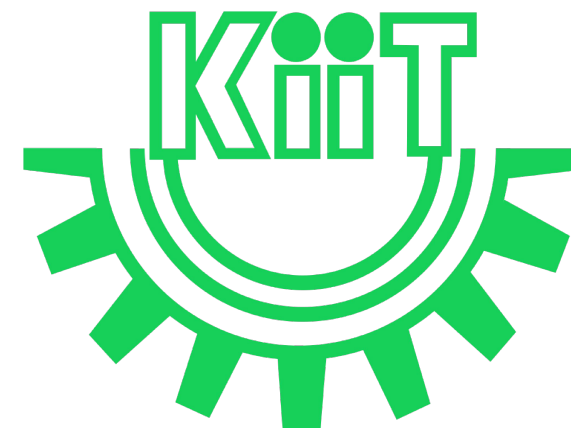




IT-2094: Web Technology

Lec-3

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Form Action

- The action is an attribute of <form> element that specifies the url of the second web page.
- The second page receives the form-data from the first page after the submission of a form.

Syntax:

```
<form action="URL of page">  
.....  
</form>
```

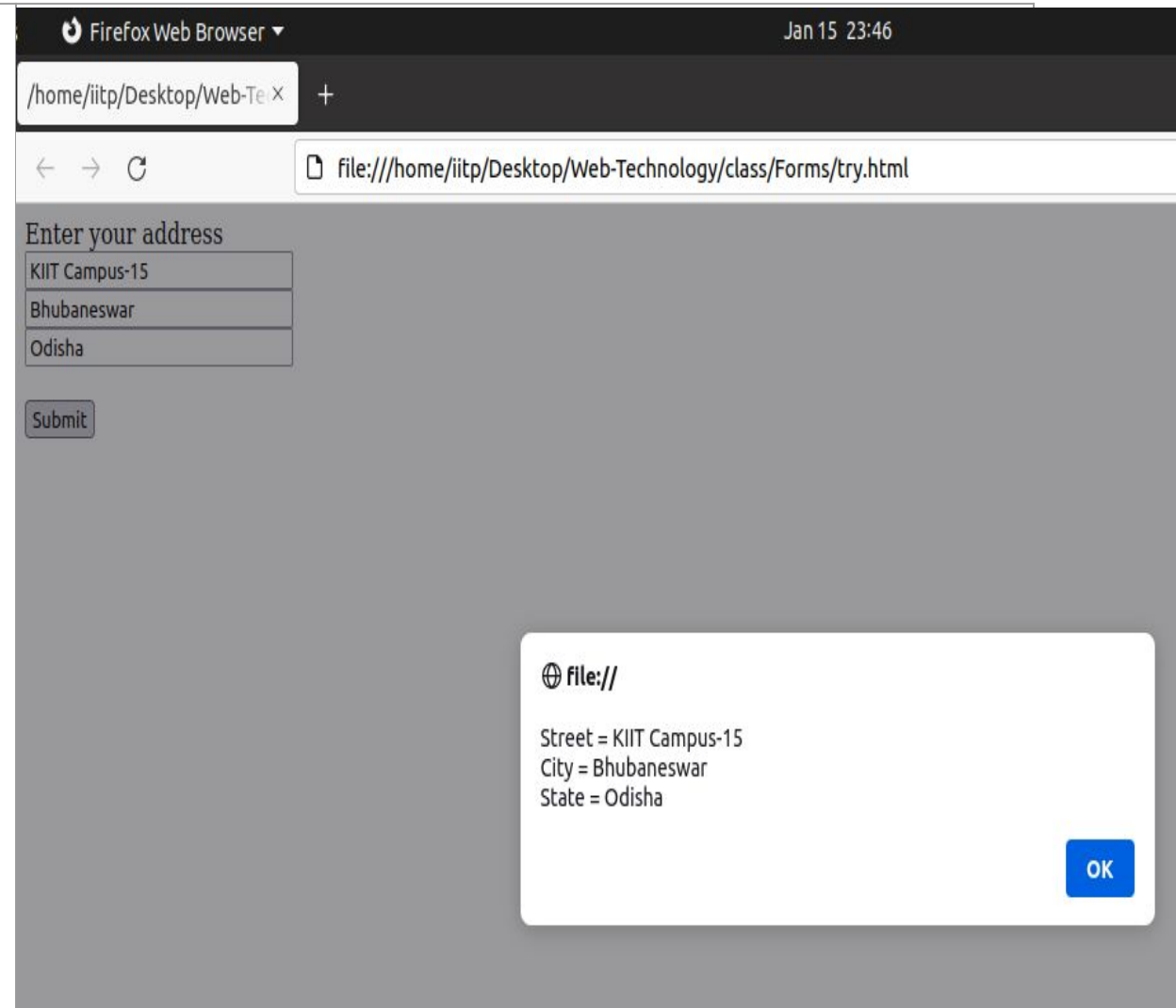
This attribute specifies the URL of a web page as its value which receives the information of the form filled by the user.

Form Action

- After adding the elements to your form, we need to specify where to send the form data and how to send it. Form data is submitted to a server-side handler or script.
- The attributes are:
 - **action:** Specifies where to send the form-data when a form is submitted. Form data is mostly submitted to a server-side handler, but it can also be JavaScript on the client.
 - **method:** specifies the HTTP method to be used when submitting the form data. The form-data can be sent as URL variables (with method="get") or as HTTP post transaction (with method="post"). The default HTTP method when submitting form data is GET.
 - **enctype:** Specifies how the form-data should be encoded when submitting it to the server (only for method="post")

Form Action

```
<!DOCTYPE>
<html>
<form action="javascript:submit()">
  <label>Enter your address</label> <br />
  <input type="text" name="street" placeholder="Street"><br>
  <input type="text" name="city" placeholder="City"><br>
  <input type="text" name="state"
placeholder="State"><br><br>
  <input type="submit" value="Submit"><!--Submit</button>-->
</form>
<script>
  let submit = () => {
    let values = "";
    values += "Street = " +
document.getElementsByName("street")[0].value + "\n";
    values += "City = " +
document.getElementsByName("city")[0].value + "\n";
    values += "State = " +
document.getElementsByName("state")[0].value + "\n";
    alert(values);
  };
</script>
</html>
```



getElementsByName: returns a NodeList Collection of elements with a given name attribute in the document.

Client Side Vs. Server Side

- Web development is an umbrella term for several fields of website creation.
- The primary forms of web development are client-side, server-side, and full-stack development.
- Both client and server-side programs are necessary to make a website function.
- Server-side is the systems that run on the server, while client-side is the software that runs on a user's web browser.
- Client-side web development involves interactivity and displaying data, server-side is about working behind the scenes to manage data.

Client Side

- Client-side developers use their coding skills to create visually appealing, functional, and helpful web applications and dynamic websites.
- These programmers are responsible for every part of a website that users see or interact with.
- Homepages, shopping pages, slideshows—virtually any visible feature that shows up in a web browser or requires user input falls under this discipline.
- All of this software runs on the client's device. Client-side developers are also known as 'front end' programmers, as the 'front' of a web page is what receives user interaction.
- Common scripting languages used by front end developers to **create client-side** code include **JavaScript, HTML, and CSS**.

Server Side

- The client-side of a website is simply a display and collection platform for information.
- The site communicates with web servers, using them to retrieve and send data from databases to provide you with the services you need.
- These software developers design, build, and maintain the server-side code that makes this exchange of data possible.
- These programmers are also known as backend developers as they work behind-the-scenes, making sure everything runs as it should on the application servers
- Common languages used by back end developers to **create server-side** code include **Python, SQL, Ruby on Rails, PHP, and Java.**

Lists

- HTML Lists are used to specify lists of information. All lists may contain one or more list elements. There are three different types of HTML lists:
 - Ordered List or Numbered List (ol)
 - Unordered List or Bulleted List (ul)
 - Description List or Definition List (dl)

Ordered List or Numbered List

- In the ordered HTML lists, all the list items are marked with numbers by default. It is known as numbered list also. The ordered list starts with `` tag and the list items start with `` tag.

```
<!DOCTYPE>
<html>
  <head>
    <title>Ordered Lists Example</title>
  </head>
  <body>
    <ol>
      <li>one
      <li>two
      <li>three
      <li>four
    </ol>
  </body>
</html>
```



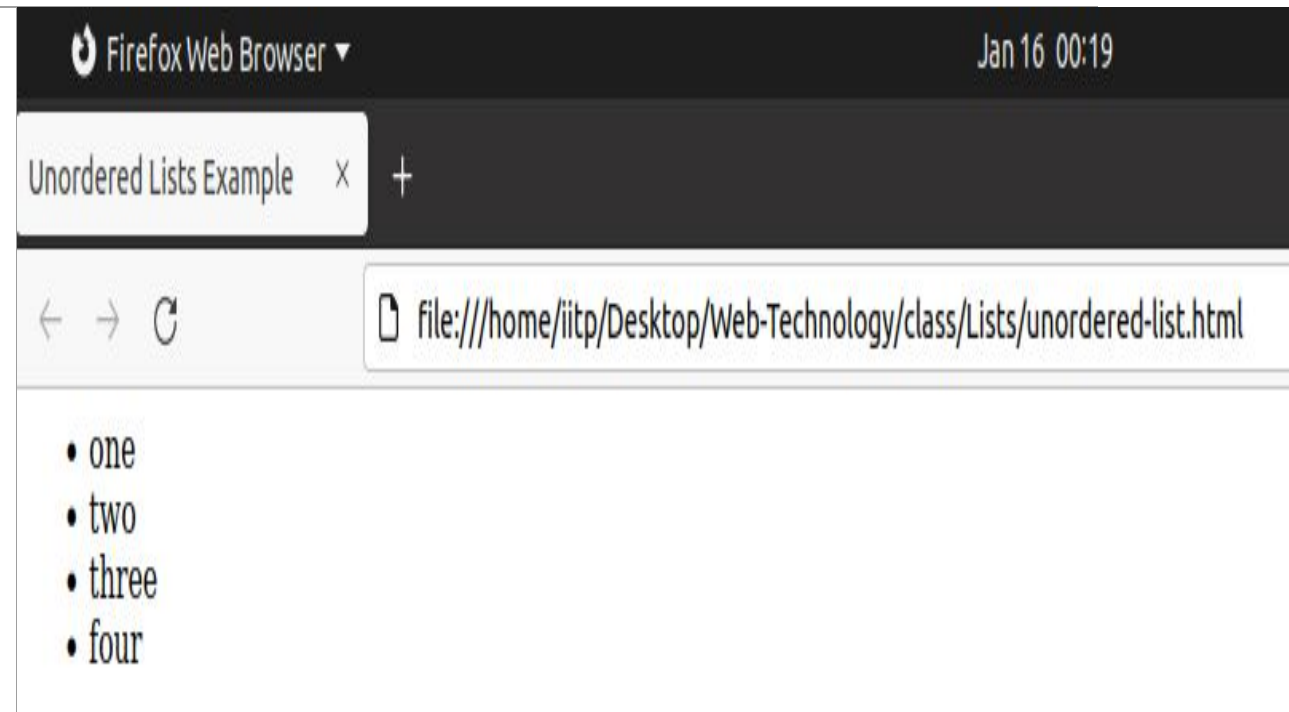
```
1. one
2. two
3. three
4. four
```

Unordered List or Bulleted List

- In HTML Unordered list, all the list items are marked with bullets. It is also known as bulleted list also. The Unordered list starts with `` tag and list items start with the `` tag.

```
<!DOCTYPE>
<html>
  <head>
    <title>Unordered Lists Example</title>
  </head>

  <body>
    <ul>
      <li>one
      <li>two
      <li>three
      <li>four
    </ul>
  </body>
</html>
```

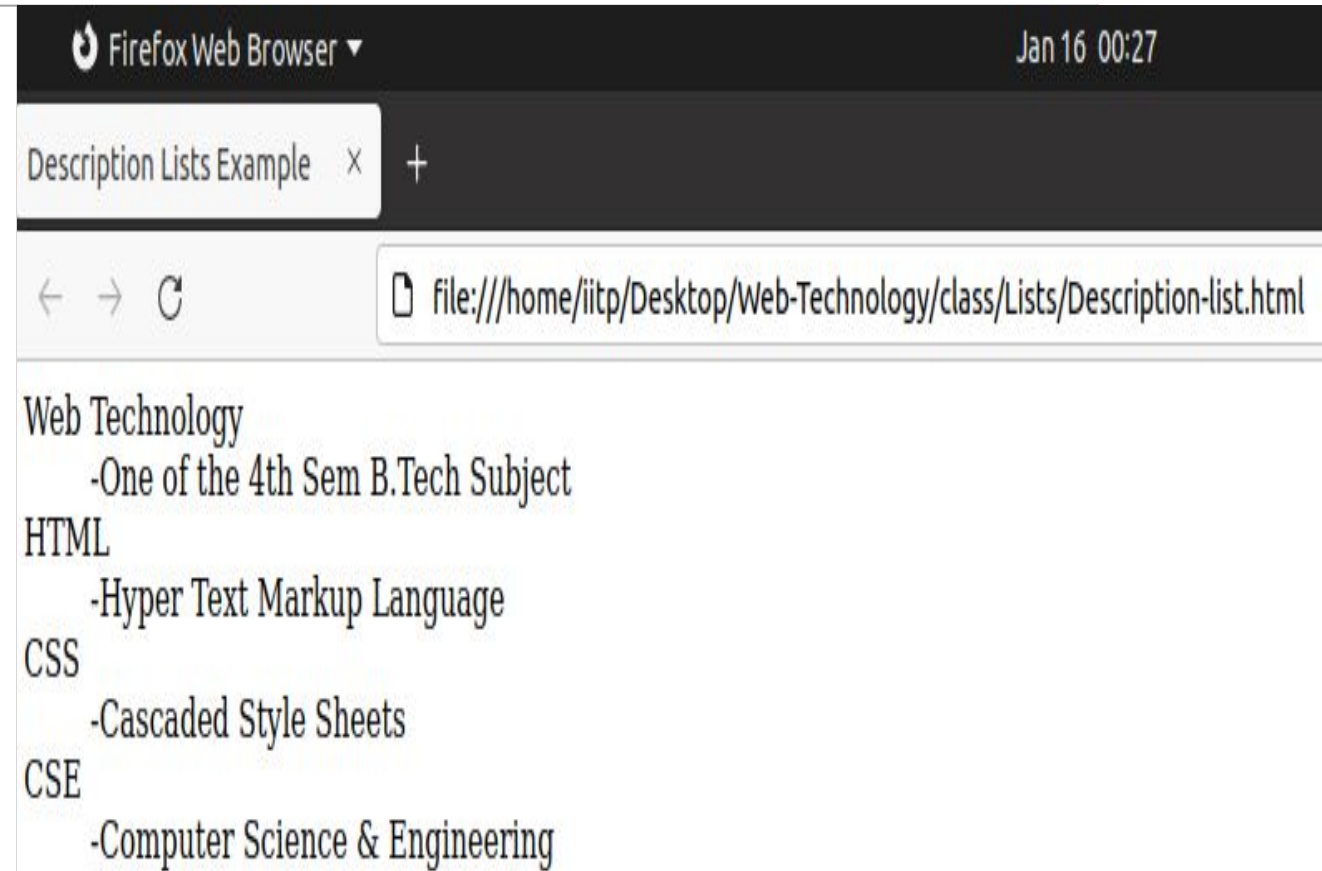


Description List or Definition List

- Description list is also a list style which is supported by HTML and XHTML.
- It is also known as definition list where entries are listed like a dictionary or encyclopedia.
- The HTML definition list contains following three tags:
 - **<dl>** tag defines the start of the list.
 - **<dt>** tag defines a term.
 - **<dd>** tag defines the term definition (description).

Description List or Definition List

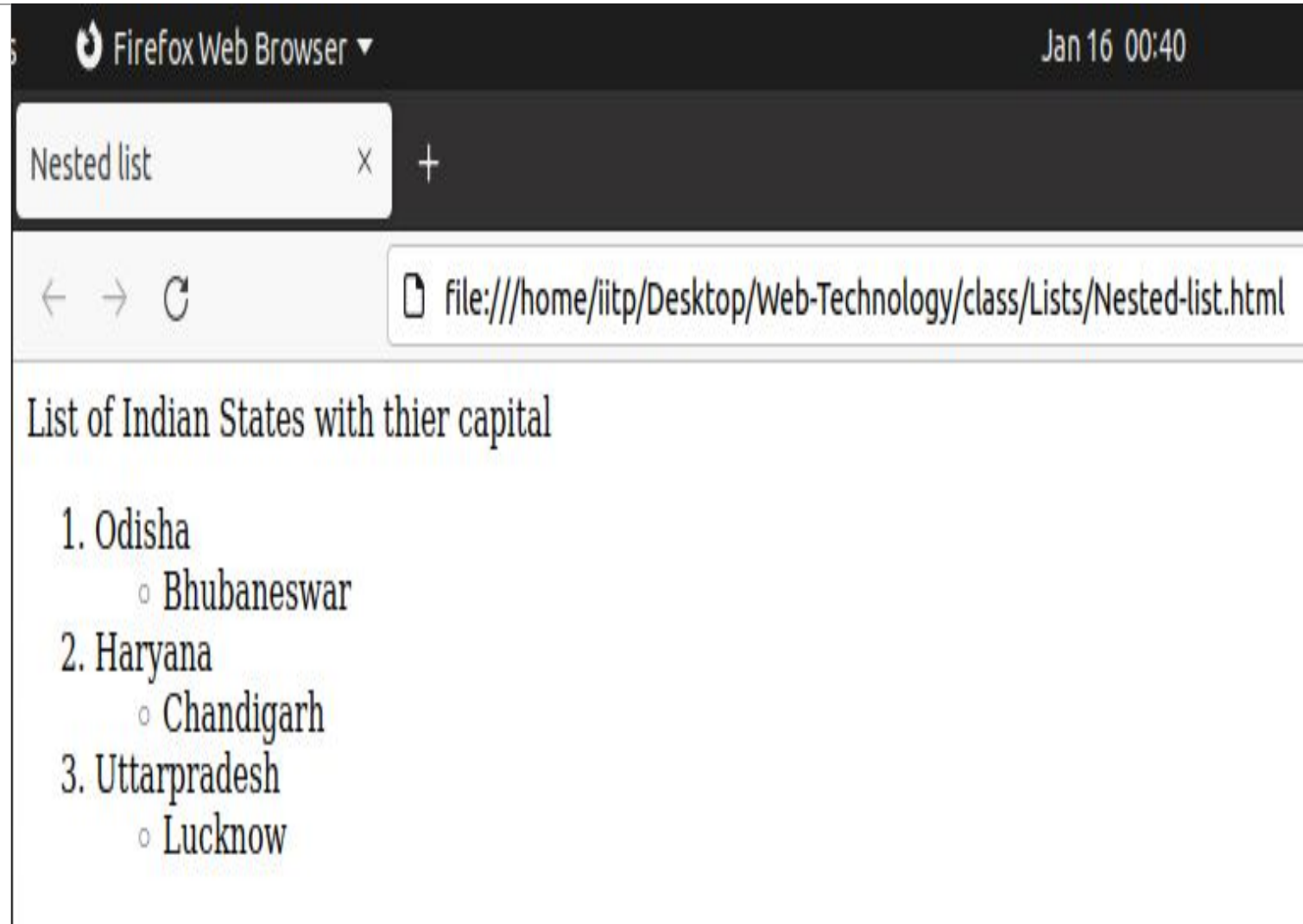
```
<!DOCTYPE>
<html>
  <head>
    <title>Description Lists Example</title>
  </head>
  <body>
    <dl>
      <dt>Web Technology</dt>
      <dd>-One of the 4th Sem B.Tech
Subject</dd>
      <dt>HTML</dt>
      <dd>-Hyper Text Markup Language</dd>
      <dt>CSS</dt>
      <dd>-Cascaded Style Sheets</dd>
      <dt>CSE</dt>
      <dd>-Computer Science & Engineering</dd>
    </dl>
  </body>
</html>
```



Nested List

- A list within another list is termed as nested list. If you want a bullet list inside a numbered list then such type of list will be called as nested list.

```
<!DOCTYPE>
<html>
<title>Nested list</title>
</head>
<body>
  <p>List of Indian States with their capital</p>
  <ol>
    <li>Odisha
      <ul>
        <li>Bhubaneswar</li>
      </ul>
    </li>
    <li>Haryana
      <ul>
        <li>Chandigarh</li>
      </ul>
    </li>
    <li>Uttarpradesh
      <ul>
        <li>Lucknow</li>
      </ul>
    </li>
  </body>
</html>
```



HTML Tables

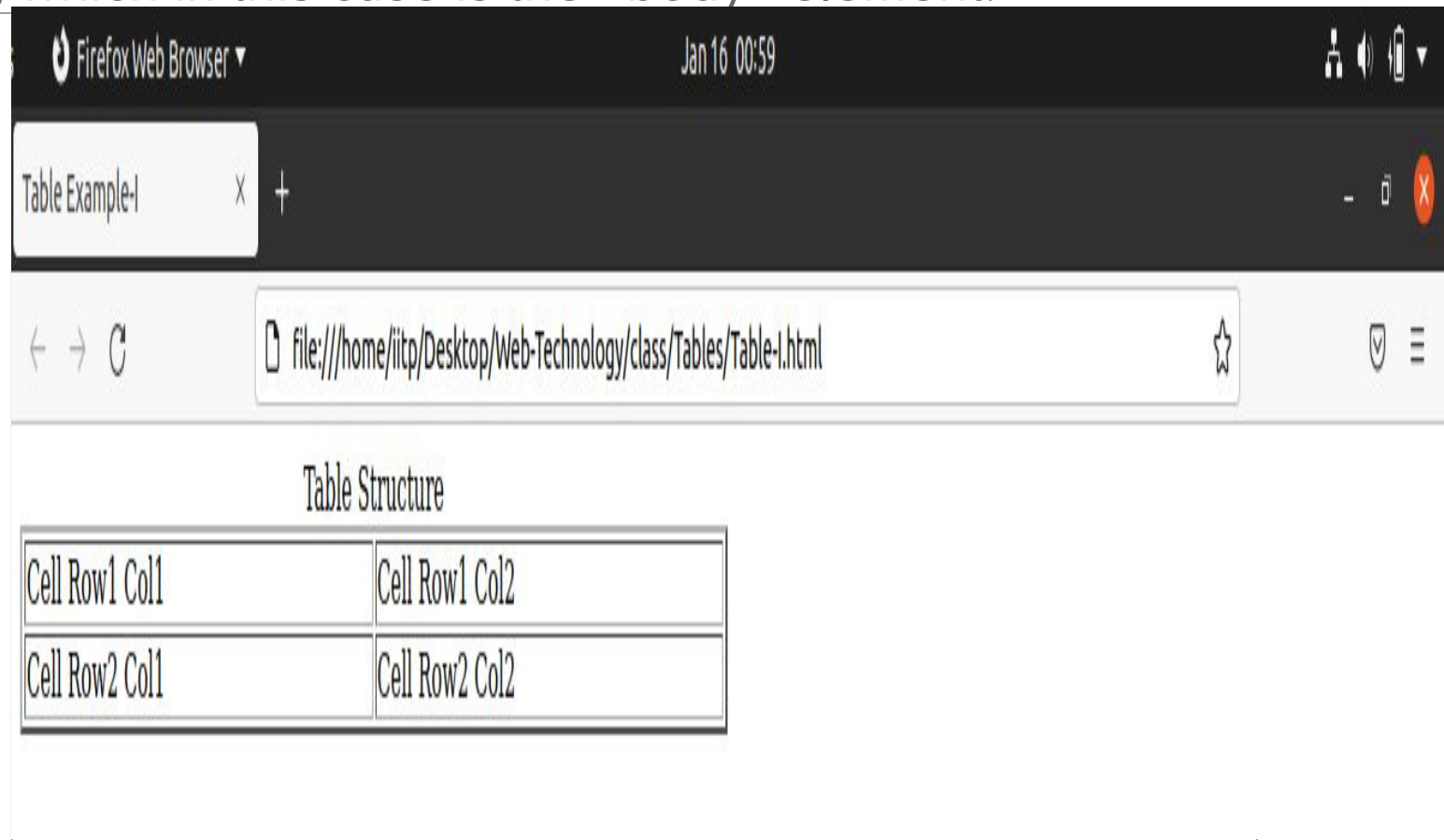
- **HTML table tag** is used to display data in tabular form (row * column).
There can be many columns in a row.
- Tables can be created, using `<table>` element, with the help of `<tr>` , `<td>`, and `<th>` elements.
- In Each table:
 - **table row** is defined by `<tr>` tag
 - **table header** is defined by `<th>` tag
 - and **table data** is defined by `<td>` tags.

HTML Tables

- *Border* value indicates the thickness of the outermost table boundary in pixels.
- *Caption* describes the title of table data.
- The width or height properties to specify the size of a table, row or column.
- Using a percentage as the size unit for a width means how wide will this element be compared to its parent element, which in this case is the <body> element.

```
<!DOCTYPE>
<html>
<head>
  <title>Table Example-I</title>
</head>
<body>

  <table width=50% border=2>
    <caption>Table Structure</caption>
    <tr>
      <td>Cell Row1 Col1</td>
      <td>Cell Row1 Col2</td>
    </tr>
    <tr>
      <td>Cell Row2 Col1</td>
      <td>Cell Row2 Col2</td>
    </tr>
  </table>
</body></html>
```



HTML Tables Align

- The HTML <table> align Attribute is used to specify the alignment of the table and its content. Align Options: left, right, center
- The HTML <td> valign Attribute is used to specify the vertical alignment of text content in a cell. valign Options: top, middle, bottom, baseline

```
<!DOCTYPE>
<html>
<head>
  <title>Table Align Example</title>
</head>
<body>
  <table width=50% Height=100 border=3>
    <caption>Table Alignment
    Structure</caption>
    <tr>
      <td align=left valign=top>Cell
    Row1 Col1 Top Left</td>
      <td align=right
    valign=top>Cell Row1 Col2 Top Right</td>
    </tr> <tr>
      <td align=left valign=bottom>Cell Row2 Col1
    Bottom Left</td>
      <td align=right valign=bottom>Cell Row2
    Col2 Botton right</td></tr></table>
</body></html>
```

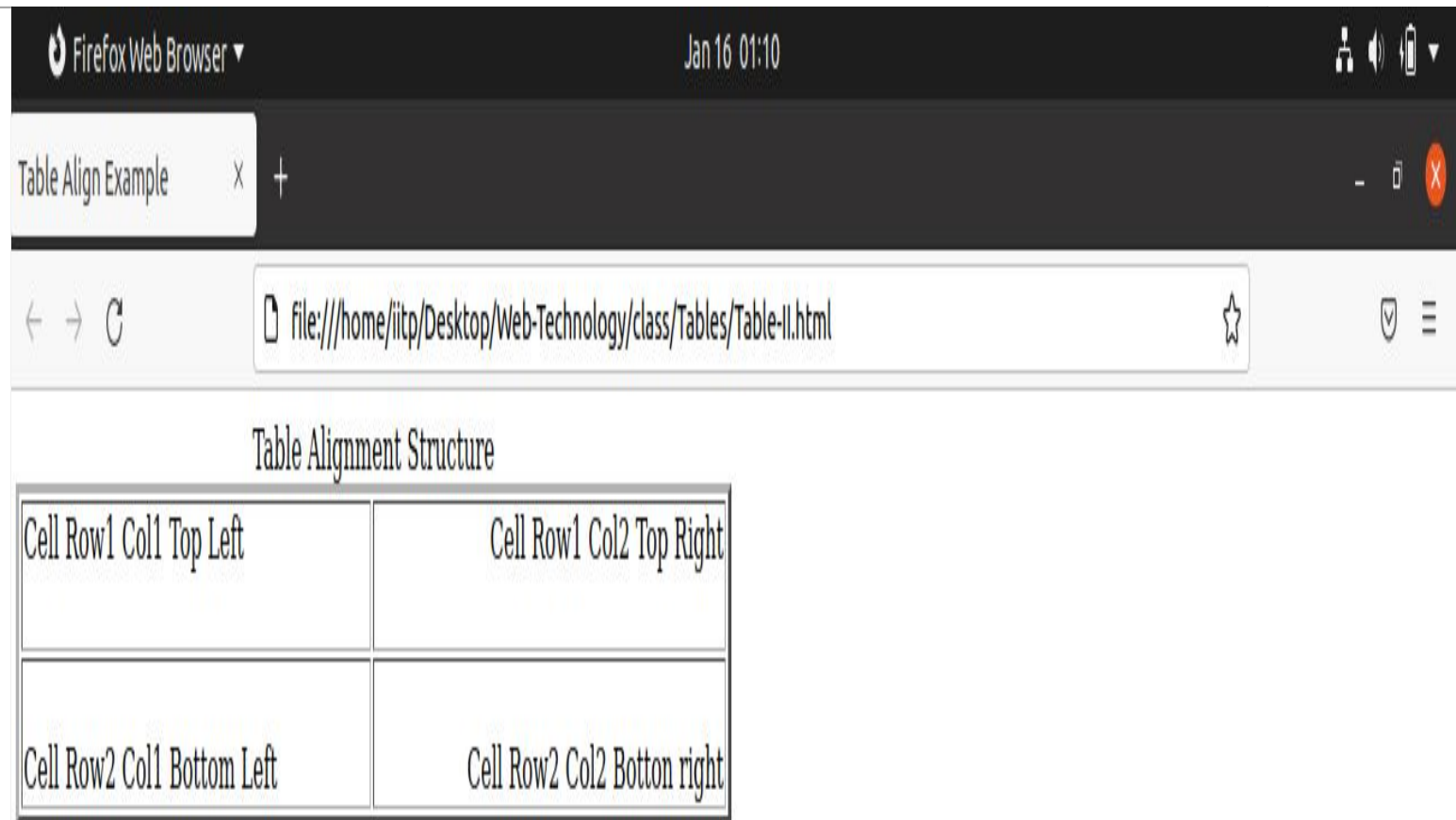


Table Header

- **Table Header** helps to understand the meaning of data in a row/column

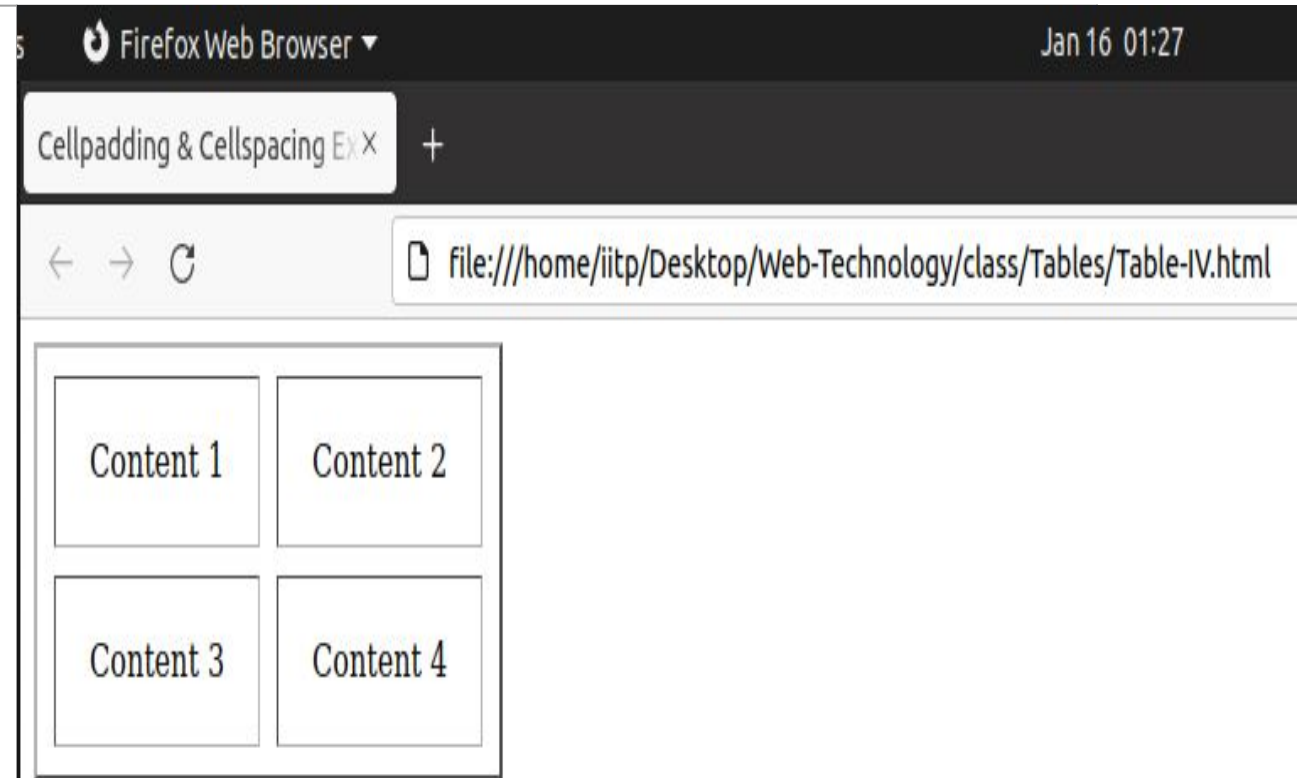
```
<!DOCTYPE>
<html>
<head>
  <title>Table Header Example</title>
</head>
<body>
  <table width="300" bgcolor="##66CCFF"
align="center">
<caption align="Top"><b>Caption Example</b></caption>
  <tr bgcolor="pink">
    <th>Col 1</th>
    <th>Col 2</th>
  </tr>
  <tr>
    <td width="50%">A</td>
    <td width="50%">B</td>
  </tr>
  <tr>
    <td width="50%">C</td>
    <td width="50%">D</td>
  </tr>
</table></body></html>
```



HTML Tables: Cellpadding & Cellspacing

- **Cellpadding** is the amount of space between the edges of the cell and cell content.
- **Cellspacing** is the amount of space between the cell borders.

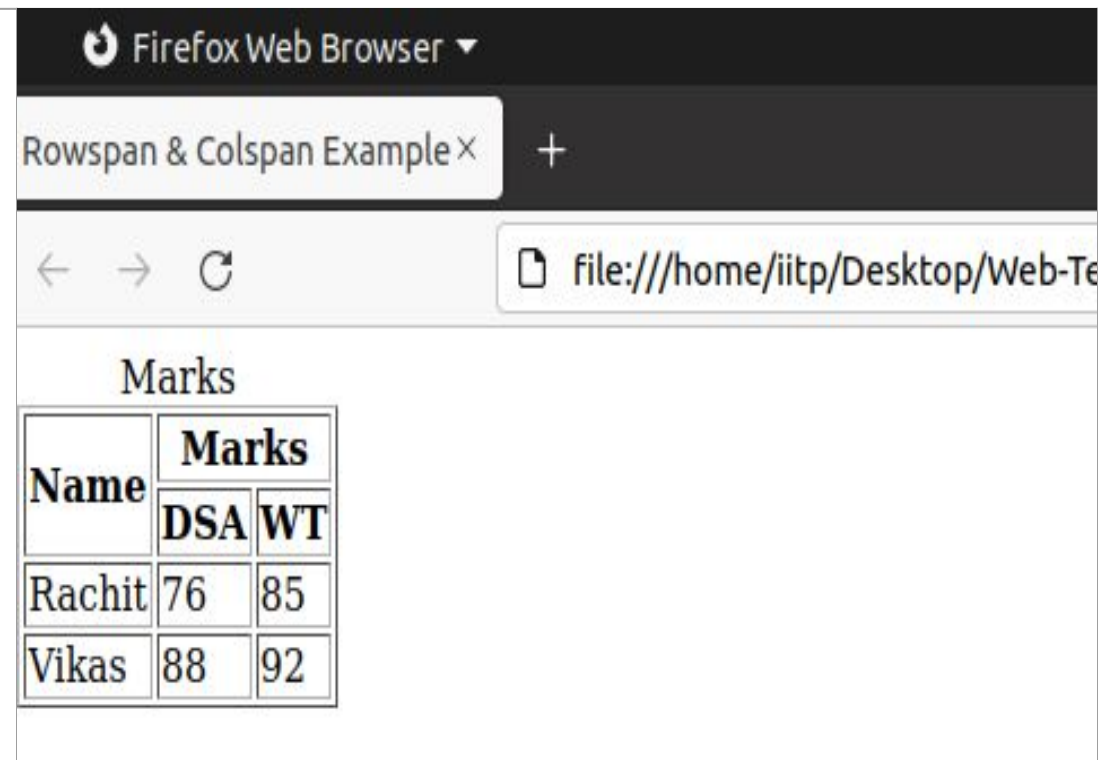
```
<!DOCTYPE>
<html>
  <head>
    <title>Cellpadding & Cellspacing Example</title>
  </head>
  <body>
    <table border=2 cellpadding=20 cellspacing=10>
      <tr>
        <td>Content 1</td>
        <td>Content 2</td>
      </tr>
      <tr>
        <td>Content 3</td>
        <td>Content 4</td>
      </tr>
    </table>
  </body>
</html>
```



HTML Tables: Rowspan and Colspan

- **Rowspan** indicates the number of rows a cell spans
- **Colspan** indicates the number of columns a cell spans.

```
<!DOCTYPE>
<html>
<head>
  <title>Rowspan & Colspan Example</title>
</head>
<body>
  <table border=1>
    <caption>Marks</caption>
    <tr>
      <th rowspan=2>Name</th>
      <th colspan=2>Marks</th>
    </tr>
    <tr>
      <th>DSA</th>
      <th>WT</th>
    </tr>
    <tr>
      <td>Rachit</td>
      <td>76</td>
      <td>85</td>
    </tr>
    <tr>
      <td>Vikas</td>
      <td>88</td>
      <td>92</td>
    </tr>
  </table>
</body>
</html>
```



The screenshot shows a Firefox Web Browser window with the title 'Rowspan & Colspan Example'. The address bar shows the file path 'file:///home/iitp/Desktop/Web-Te'. The browser displays the rendered HTML table, which has a caption 'Marks' and a border. The table structure is as follows:

Name	Marks	
	DSA	WT
Rachit	76	85
Vikas	88	92

HTML Frames

- A web page may be divided into several blocks called **frames**.
- Each frame may display a separate web page
- *Frames are used to have the menu in one frame and the content in another frame*
- HTML frames are used to divide your browser window into multiple sections where each section can load a separate HTML document.
- A collection of frames in the browser window is known as a **frameset**. The window is divided into frames in a similar way the tables are organized: into rows and columns.

HTML Frames

- To use frames on a page we use **<frameset>** tag *instead of* **<body>** tag.
- The <frameset> tag defines, how to divide the window into frames.
 - The rows attribute of <frameset> tag defines horizontal frames and cols attribute defines vertical frames.
 - Each frame is indicated by <frame> tag and it defines which HTML document shall open into the frame.

HTML Frames: Frameset Cols

```
<!DOCTYPE>
```

```
<html>
```

```
  <head>
```

```
    <title>HTML Frames Example</title>
```

```
  </head>
```

```
  <frameset cols = "60%,40%">
```

```
    <frame scrolling="No" src = "/home/iitp/Desktop/Web-Technology/class/Frames/download.jpeg" />
```

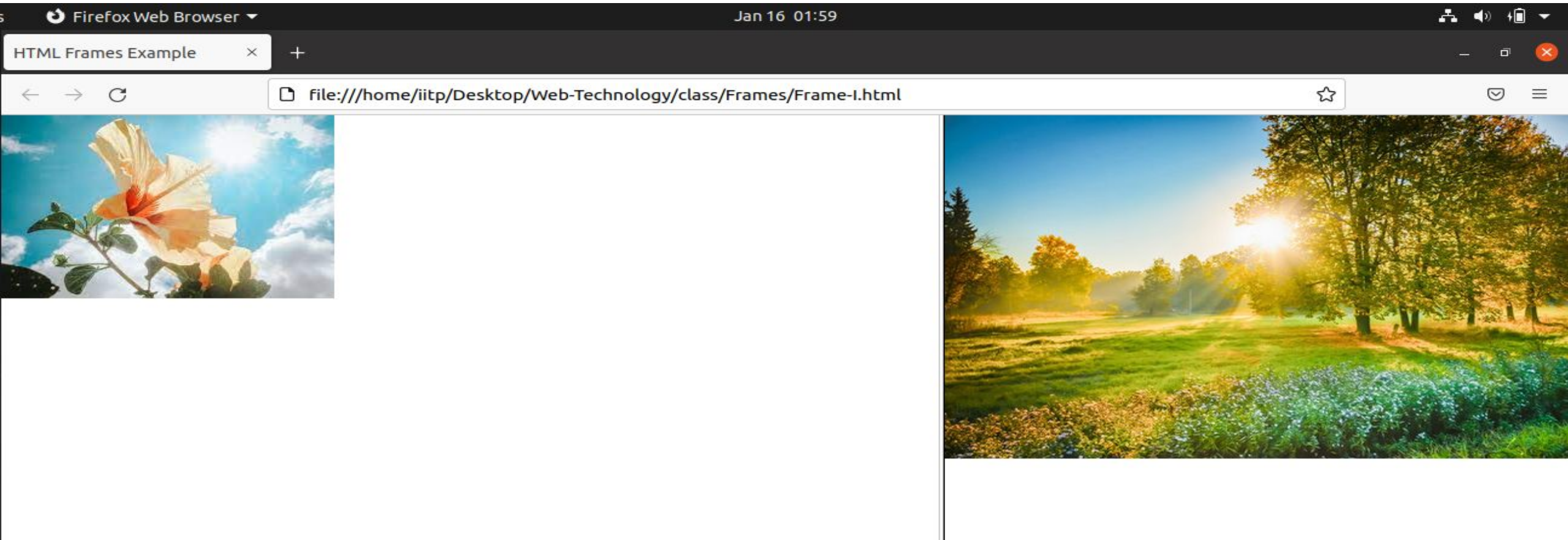
```
    <frame src = "/home/iitp/Desktop/Web-Technology/class/Frames/sunshine.jpg" />
```

```
  </frameset>
```

```
</html>
```

HTML Frames: Frameset

- <FRAMESET> defines the characteristics of the frames such as number of frames to be created, orientation, width, height.
- Nested frames are possible



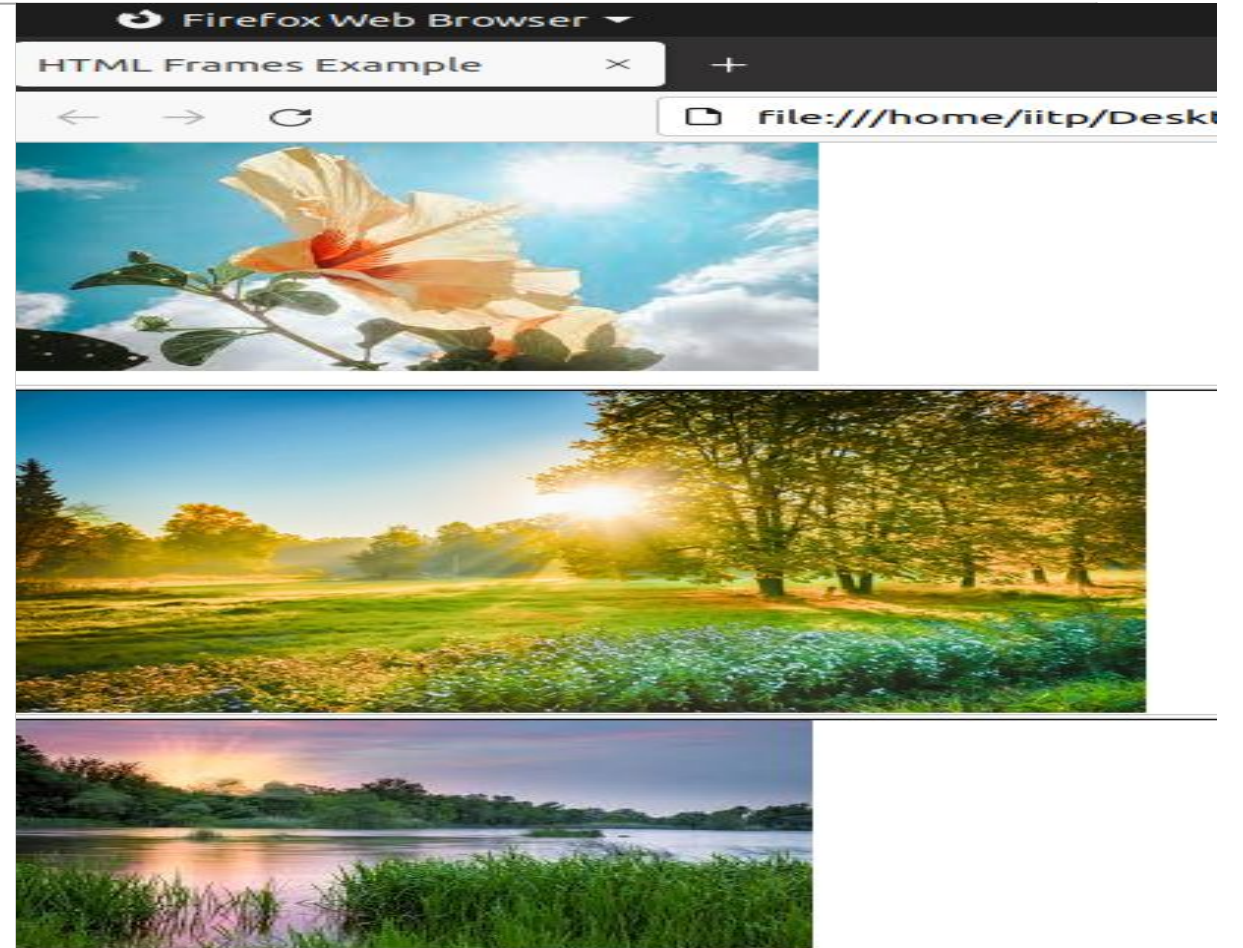
HTML Frames: Frameset Rows

```
<!DOCTYPE>
<html>

  <head>
    <title>HTML Frames Example</title>
  </head>

  <frameset rows= "30%,40%,30%">
    <frame scrolling="No" src =
"/home/iitp/Desktop/Web-Technology/class/Frames/download.j
peg" />
    <frame src =
"/home/iitp/Desktop/Web-Technology/class/Frames/sunshine.j
pg" />
    <frame src =
"/home/iitp/Desktop/Web-Technology/class/Frames/water.jpeg"
/>
  </frameset>

</html>
```



References

1. <https://www.dofactory.com/html/form/action>
2. <https://careerkarma.com/blog/client-vs-server-side-development/>
- 3.
- 4.
- 5.