

BASIC HTML TAGS**AIM**

To create a simple html file to demonstrate the use of different tags such as heading tags <h1>...<h6>, <p>,
, , <u>, <i>, <align> tag with <p> tag/ heading tags, <bgcolor> with <body> tag, <marquee> tag, <a> tag and tag.

SOURCE CODE

```
<html>

  <head>

    <title>HTML Tag Demonstration</title>

  </head>

  <body bgcolor="Pink">

    <!--Heading Tags-->

    <h1> Heading 1 </h1>

    <h2> Heading 2 </h2>

    <h3> Heading 3 </h3>

    <h4> Heading 4 </h4>

    <h5> Heading 5 </h5>

    <h6> Heading 6 </h6>

    <!--Paragraph and formatting tags-->

    <p align="center">This is a <b>bold</b>, <u>underlined</u>, and
    <i>italicized</i> paragraph with some <br>line breaks.</p>

    <!--Marquee Tag-->

    <marquee>Welcome to the HTML Page!</marquee>

    <!--Anchor Tag-->

    <p>Visit<a href="https://www.geeksforgeeks.org/">More about
    HTML</a></p>

    <!--Image Tag-->

    

  </body>

</html>
```

RESULT

The HTML page to demonstrate basic HTML tags has been designed.

HTML LISTS

AIM

Create a web page which contains notes on lists in HTML (ordered and unordered).

SOURCE CODE

```
<html>
  <head>
    <title>HTML Lists</title>
  </head>
  <body>
    <h1>HTML Lists</h1>
    <h2>Unordered List</h2>
    <ul>
      <li>BCA</li>
      <li>MCA</li>
      <li>MBA</li>
    </ul>
    <ul type="circle">
      <li>BCA</li>
      <li>MCA</li>
      <li>MBA</li>
    </ul>
    <h2>Ordered List</h2>
    <ol>
      <li>BCA</li>
      <li>MCA</li>
      <li>MBA</li>
    </ol>
    <ol type="A">
      <li>BCA</li>
      <li>MCA</li>
      <li>MBA</li>
    </ol>
    <ol type="a">
      <li>BCA</li>
      <li>MCA</li>
      <li>MBA</li>
    </ol>
    <ol type="I">
      <li>BCA</li>
      <li>MCA</li>
      <li>MBA</li>
    </ol>
    <ol type="i">
      <li>BCA</li>
      <li>MCA</li>
      <li>MBA</li>
    </ol>
  </body>
```

</html>

RESULT

The HTML page to demonstrate HTML lists has been designed.

HTML PAGE WITH IMAGES AND TABLES**AIM**

Create a static webpage for your college with the following information:

- a) Name of college (First level heading, text align = center, color = blue, use style attribute)
- b) Add vision and mission of the college as scrolling text (color = green)
- c) About us (Second level heading, background-color = red, color = white, use style attribute)
 - i. Insert an image of your college.
(Align image in center, width = 1000px, height = 300px)
 - ii. Add a brief description about your college. (justified paragraph)
- d) Courses Offered (Second level heading, background-color = red, color = white, use style attribute)
 - i. Add a brief description about courses offered. (justified paragraph)
Add course details (Use HTML table)
 - ii. Contact us. (Second level heading, background-color = red, color = white)
Address for Communication (Third level heading, color = blue)
Address of the college
Add Link to the official website of the college.

SOURCE CODE

```
<html>
  <head>
    <title>RIT</title>
  </head>
  <body>
    <h1 style="text-align:center;color:blue;">Rajiv Gandhi Institute Of
    Technology</h1>
    <h2 style="color:green;"><marquee>Our vision is to be a global leader in
    technological education and research</marquee></h2>
    <h3 style="background-color:red;color:white;">About us..</h3>
    
    <p style="text-align:justify;">Rajiv Gandhi Institute of Technology, named after the
    late Prime Minister Sri Rajiv Gandhi, run by the Government of Kerala, started
    functioning in 1991. It has established a vast infrastructure and put together a team
    of dedicated teachers. The institution has become one of the leading technical
    Institutes in Kerala. The government has started this institution in the view of making
    it a center for post-graduation and research studies. The college is affiliated to the
    APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY. RIT, the sanctum of
    technology aims at providing high quality education for talented students from all
    sections of the society. Owned and managed by the Government of Kerala, it has a
    highly qualified and dedicated faculty. More than providing technical education RIT
    aims at the overall development of each and every RITian. The college provides a
    positive environment for the students to develop their potentials and to excel in all
    walks of life.</p>
    <h2 style="background-color:red;color:white;">Courses offered..</h2>
    <p style="text-align:justify;">All courses offered by RIT are affiliated to KERALA
    TECHNICAL UNIVERSITY and approved by the All-India Council for Technical
    Education (AICTE).The B. Tech programs are of 8 semester (4 year) duration. The
    combined first and second semester courses are common for all branches. The B.
```

Arch program is of 10 semester (5 year) duration. The M. Tech programs are of 4 semester (2 year) duration, and the MCA program is of 6 semester (3 year) duration.

UG			
COURSE	DEPARTMENT	INTAKE	
B.Tech	Civil Engineering	66	
	Mechanical Engineering	66	
	Electrical & Electronics Engineering	66	
	Electronics & Communication Engineering	66	
	Computer Science & Engineering	66	
	B.Arch	Architecture	40

PG			
----	--	--	--

```

</tr>
<tr>
  <th style="border:1px solid black;padding:8px">COURSE</th>
  <th style="border:1px solid black;padding:8px">
    DEPARTMENT </th>
  <th style="border:1px solid black;padding:8px">
    SPECIALIZATION</th>
  <th style="border:1px solid black;padding:8px">INTAKE</th>
</tr>
<tr>
  <td style="border:1px solid black;padding:8px" rowspan=6>
    M.Tech </td>
  <td style="border:1px solid black;padding:8px">Civil
    Engineering</td>
  <td style="border:1px solid black;padding:8px">Transportation
    Engineering</td>
  <td style="border:1px solid black;padding:8px">18</td>
</tr>
<tr>
  <td style="border:1px solid black;padding:8px">Mechanical
    Engineering</td>
  <td style="border:1px solid black;padding:8px">Industrial
    Engg. $ Management</td>
  <td style="border:1px solid black;padding:8px">18</td>
</tr>
<tr>
  <td style="border:1px solid black;padding:8px">Electrical $
    Electronics Engineering</td>
  <td style="border:1px solid black;padding:8px">Industrial
    Drives $ Control</td>
  <td style="border:1px solid black;padding:8px">18</td>
</tr>
<tr>
  <td style="border:1px solid black;padding:8px">Electronics $
    Communication Engineering</td>
  <td style="border:1px solid black;padding:8px">Advanced
    Communication and Information System</td>
  <td style="border:1px solid black;padding:8px">18</td>
</tr>
<tr>
  <td style="border:1px solid black;padding:8px">Electronics $
    Communication Engineering</td>
  <td style="border:1px solid black;padding:8px">Advanced
    Electronics and Communication</td>
  <td style="border:1px solid black;padding:8px">18</td>
</tr>
<tr>
  <td style="border:1px solid black;padding:8px">Computer
    Science $ Engineering</td>
  <td style="border:1px solid black;padding:8px">Computer
    Science $ Engineering</td>

```

```

        <td style="border:1px solid black;padding:8px">18</td>
    </tr>
    <tr>
        <td style="border:1px solid black;padding:8px">MCA</td>
        <td style="border:1px solid black;padding:8px">MCA</td>

        <td style="border:1px solid black;padding:8px">Computer
        Applications</td>
        <td style="border:1px solid black;padding:8px">60</td>
    </tr>
</table>
<h2 style="background-color:red;color:white;">Contact Us..</h2>
<h3 style="color:blue;">Address for Communication</h3>
Velloor P O<br>Pampady<br>Kottayam-686501 , Kerala State.<br>
<a href="https://www.rit.ac.in/">Official Website</a>
</body>
</html>

```

RESULT

The HTML page to demonstrate images and tables has been designed.

HTML PAGE WITH HYPERLINKS**AIM**

Create an attractive webpage showing the images and description of at least three festivals in India. Set width and height of the images as 500px and 700px respectively. When an image of a festival is clicked, user must redirect to another webpage showing details of that festival. The new webpage should be opened in another tab.

SOURCE CODEMain.html

```
<html>
  <head>
    <title>Indian Festivals</title>
  </head>
  <body>
    <center>
      <h1 style="text-align:center;color:red;">Indian Festivals</h1>
      <h2 style="color:blue">Diwali</h2>
      <a href="diwali.html" target="_blank"></a>
      <h2 style="color:blue">Holy</h2>
      <a href="holy.html" target="_blank"></a>
      <h2 style="color:blue">Onam</h2>
      <a href="onam.html" target="_blank"></a>
    </center>
  </body>
</html>
```

diwali.html

<h3 align=center>Diwali, also known as Deepavali, is a major Hindu festival celebrated with grandeur and enthusiasm across India and many parts of the world. The word "Deepavali" translates to "a row of lamps," signifying the victory of light over darkness, knowledge over ignorance, and good over evil.</h3>

holy.html

<h3 align=center>Holi is a vibrant and joyful festival celebrated predominantly in India and Nepal, marking the arrival of spring and the triumph of good over evil. Known as the Festival of Colors, it brings people together to play with colors, sing, dance, and enjoy festive delicacies.</h3>

onam.html

<h3 align=center>Onam is a grand harvest festival celebrated in the southern Indian state of Kerala. It marks the homecoming of the mythical King Mahabali, whose reign is believed to have brought peace, prosperity, and equality. This 10-day festival showcases Kerala's rich culture and traditions, with vibrant rituals, feasts, dances, and games.</h3>

RESULT

The HTML page to demonstrate hyperlinks has been designed.

HTML PAGE WITH FRAMES

AIM

Using HTML Iframes create a webpage with two frames. One frame contains list of items as hyperlinks - Fruits, Vegetables, Flowers and Trees. When an item is selected, details and images of the selected item should be displayed on right frame.

Fruits Vegetables Flowers Trees	Select any of the items shown on the left
Left Frame	Right Frame

SOURCE CODE

frame.html

```
<html>
  <head>
    <title>HTML iframes</title>
  </head>
  <body>
    <iframe src="menu.html" width="50%" height="100%" style="border:none;"
      align="left">
    </iframe>
    <iframe src="display.html" name="contents" width="50%" height="100%"
      style="border:none;" align="right">
    </iframe>
  </body>
</html>
```

menu.html

```
<html>
  <head>
    <title>Menu</title>
  </head>
  <body>
    <ul>
      <li><a href="fruit.html" target="contents">Fruits</a></li>
      <li><a href="vegetables.html" target="contents">Vegetables</a></li>
      <li><a href="flowers.html" target="contents">Flowers</a></li>
      <li><a href="trees.html" target="contents">Trees</a></li>
    </ul>
  </body>
</html>
```

display.html

```
<html>
  <head>
    <title>Display</title>
  </head>
```

```
<body>
  <h3>Select any items to show on screen</h3>
</body>
</html>
```

fruit.html

```
<html>
  <head>
    <title>Fruits</title>
  </head>
  <body>
    <h2 align="center">Fruits</h2>
    <div align="center">
      </div>
      <p align="justify">Fruits are the sweet, Fleshy, edible part of plant. It generally
        contains seeds. Fruits are vital part of a healthy diet. They come in wide variety of
        colours, shapes and flavours.
      </p>
    </body>
</html>
```

vegetables.html

```
<html>
  <head>
    <title>Vegetables</title>
  </head>
  <body>
    <h2 align="center">Vegetables</h2>
    <div align="center">
      </div>
      <p align="justify">Vegetables are good source of vitamins A, C and E as well as
        minerals like calcium and iron. Eating vegetables can help you maintain a healthy
        weight, lower your cholesterol and blood pressure.
      </p>
    </body>
</html>
```

flowers.html

```
<html>
  <head>
    <title>Flower</title>
  </head>
  <body>
    <h2 align="center">Flowers</h2>
    <div align="center">
      </div>
      <p align="justify">Flowers are an essential part of our lives. They are responsible
        for bringing happiness in our lives and making our surrounding environment a
        prettier place to live in.
      </p>
    </body>
</html>
```

trees.html

```
<html>
  <head>
    <title>Trees</title>
  </head>
  <body>
    <h2 align="center">Trees</h2>
    <div align="center">
      </div>
      <p align="justify">Trees are essential resource for everyone. They provide habitat
        for various species, clean the air and produce oxygen.
      </p>
    </body>
  </html>
```

RESULT

The HTML page to demonstrate frames has been designed.

HTML FORM**AIM**

Create a Student Registration Form.

SOURCE CODE

```
<html>
  <head>
    <title>HTML Forms</title>
  </head>
  <body>
    <center><h3>STUDENT REGISTRATION FORM</h3>
    <form>
      <table border=1 width=40% cellpadding=10>
        <tr>
          <td>FIRST NAME</td>
          <td><input type="text"> (max 30 characters)</td>
        </tr>
        <tr>
          <td>LAST NAME</td>
          <td><input type="text"> (max 30 characters)</td>
        </tr>
        <tr>
          <td>DATE OF BIRTH</td>
          <td><select>
            <option>Day:</option>
            <option>1</option>
            <option>2</option></select>
            <select>
            <option>Month:</option>
            <option>January</option>
            <option>February</option></select>
            <select>
            <option>Year:</option>
            <option>1998</option>
            <option>1999</option></select></td>
          <td><input type="text"> (10 digit number)</td>
        </tr>
        <tr>
          <td>GENDER</td>
          <td>Male <input type="radio" name="a"> Female <input type="radio"
            name="a"></td>
        </tr>
      </table>
    </form>
  </body>
</html>
```

```

<tr>
  <td rowspan=4>ADDRESS</td>
  <td><textarea rows=4 cols=27></textarea></td>
</tr>
<tr>
  <td>CITY</td>
  <td><input type="text"> (max 30 characters)</td>
</tr>
<tr>
  <td>PIN CODE</td>
  <td><input type="text"> (6 digit number)</td>
</tr>
<tr>
  <td>STATE</td>
  <td><input type="text"> (max 30 characters)</td>
</tr>
<tr>
  <td>COUNTRY</td>
  <td><input type="text" value="India"></td>
</tr>
<tr>
  <td>HOBBIES</td>
  <td>Drawing <input type=checkbox> Singing <input type=checkbox>
    Dancing <input type=checkbox> Sketching <br> Others
    <input type=checkbox> <input type =text>
</tr>
<tr>
  <td>QUALIFICATION</td>
  <td>
    <table>
      <tr>
        <th>SL.No</th>
        <th>Examination</th>
        <th>Board</th>
        <th>Percentage</th>
        <th>Year of Passing</th>
      </tr>
      <tr>
        <td>1</td>
        <td>Class X</td>
        <td><input type="text"></td>
        <td><input type="text"></td>
        <td><input type="text"></td>
      </tr>
      <tr>
        <td>2</td>
        <td>Class XII</td>
        <td><input type="text"></td>
        <td><input type="text"></td>
        <td><input type="text"></td>
      </tr>
    </table>
  </td>
</tr>

```

```

        <td>3</td>
        <td>Graduation</td>
        <td><input type="text"></td>
        <td><input type="text"></td>
        <td><input type="text"></td>
    </tr>
    <tr>
        <td>4</td>
        <td>Masters</td>
        <td><input type="text"></td>
        <td><input type="text"></td>
        <td><input type="text"></td>
    </tr>
    <tr>
        <td></td>
        <td></td>
        <td align=center>(10 char max)</td>
        <td align=center>(upto 2 decimal)</td>
        <td></td>
    </tr>
</table>
</td>
</tr>
<tr>
    <td>COURSES<br>APPLIED FOR</td>
    <td>MCA <input type=radio name="a"> MTech <input type=radio
        name="a"> M.Sc <input type=radio name="a"> Ph.D. <input type=radio
        name="a"></td>
</tr>
<tr>
    <td>TYPE YOUR PASSWORD</td>
    <td><input type="password"> (max 30 characters)</td>
</tr>
<tr>
    <td>UPLOAD YOUR PHOTO</td>
    <td><input type=file></td>
</tr>
<tr>
    <td>DATE OF TC</td>
    <td><input type=date></td>
</tr>
<tr>
    <td colspan=2 align=center><input type=submit> <input type =reset> </td>
</tr>
</table>
</form>
</center>
</body>
</html>

```

RESULT

The HTML page to design a student registration form has been designed.

HTML PAGE WITH INTERNAL STYLESHEET**AIM**

Using Internal style sheets, create a web page showing your biodata, with the following styles:

- Put your Name in <h1> tag, center aligned.
- Add following via <h2> tags, Personal Details, Educational Details, Hobbies. Put the respective contents below, in list format.
- Add contact details at the bottom including mail id and mobile number.
- Style all <h1> tags as red coloured and center aligned and all <h2> tags as white coloured with background color blue.
- Display <p> elements with a border.
- Change the background color of the page to yellow.

SOURCE CODE

```
<html>
<head>
  <title>My Biodata</title>
  <style>
    body{
      background-color:yellow;
      padding:10px;
      padding-left:200px;
      padding-right:200px;}
    h1 {
      color:red;
      text-align:center;}
    h2{
      color:white;
      background-color:blue;
      padding:5px;}
    p{
      border:1px solid black;
      padding:10px;}
  </style>
</head>
<body>
  <h1>SHIFANA SHIRIN R S</h1>
  <h2>Personal Details</h2>
  <ul>
    <li>Age : 21</li>
    <li>Gender : Female</li>
    <li>Address : Shirins Manzil, Attukal , Nedumangadu</li>
  </ul>
  <h2>Educational Details</h2>
  <ul>
    <li>Bachelor's Degree in Computer Science</li>
    <li>High School : JNV Trivandrum</li>
  </ul>
  <h2>Hobbies</h2>
  <ul>
```



```
        <li>Singing</li>
        <li>Dancing</li>
    </ul>
    <p>Contact Details :</p>
    <ul>
        <li>Email ID : abc123@gmail.com</li>
        <li>Phone Number : 1234567890</li>
    </ul>
</body>
</html>
```

RESULT

The HTML page to demonstrate internal stylesheets has been designed.

HTML PAGE WITH EXTERNAL STYLESHEET**AIM**

Using External Style Sheets, create a web page with following styles:

- a. Create different paragraphs defining different selectors in CSS. Each paragraph should be defined with appropriate labels for making styles of each selector.
- b. Style each selector with unique font color, and background color.

SOURCE CODEmain.html

```
<html>
<head>
  <title>CSS Selectors</title>
  <link rel="stylesheet" href="styles.css">
</head>
<body>
  <h1>CSS Selectors</h1>
  <p>An Element Selector is used to apply styles to all instances of a specific HTML
  tag.</p>
  <p id="paragraph">An ID Selector targets a single, unique element on webpage, identified
  by a specific id attribute.</p>
  <p class="styled-paragraph">A Class Selector is used to apply styles to multiple elements
  that share same class attribute.</p>
  <h2>This heading and the heading below are styled using grouping selector.</h2>
  <h3>The Grouping Selector allows to apply the same styles to multiple elements.</h3>
  <h4>The Universal Selector is used to select and apply styles to all elements on a
  webpage.</h4>
</body>
</html>
```

styles.css

```
*{
  font-family:Arial,Sans-serif;
  color:darkgray;
  padding-left:150px;
  padding-right:150px;
  text-align:center;
}
p{
  font-size:16px;
  background-color:lightgray;
  padding:10px;
  border:1px solid black;
}
#paragraph{
  background-color:lightgreen;
  color:green;
  border:1px solid green;
}
.styled-paragraph{
```

```
background-color:lightblue;
color:blue;
border:1px solid blue;
}
h2,h3{
background-color:lightyellow;
color:goldenrod;
padding:10px;
border:1px solid goldenrod;
}
```

RESULT

The HTML page to demonstrate external stylesheets has been designed.

HTML PAGE WITH STRIPPED TABLE USING CSS**AIM**

Create a stripped table using CSS.

- Use Id attribute of the table as CSS Selector.
- Table header must have 20px top and bottom padding, left text align, white text color, background color as #b22222, 1px solid grey color top, bottom, left and right borders.
- Each table data/cell must have 8px padding on four sides.
- Each table data/cell must have 1px solid grey color top, bottom, left and right borders.
- Table borders should be collapsed into a single border.
- Table width should be 100% of the document body and use sans-serif font family.
- Highlight table rows on mouse over by setting 'burlywood' background color.
- Add background-color #f2f2f2 to all even table rows.

SOURCE CODE

main.html

```
<html>
<head>
    <title>Striped Table</title>
    <link rel="stylesheet" href="styles.css">
</head>
<body>
    <table id='mytable'>
        <thead>
            <tr>
                <th>Employee Code</th>
                <th>Employee Name</th>
                <th>Salary</th>
            </tr>
        </thead>
        <tbody>
            <tr>
                <td>1</td>
                <td>Anu</td>
                <td>10,000</td>
            </tr>
            <tr class="even-row">
                <td>2</td>
                <td>Minnu</td>
                <td>20,000</td>
            </tr>
            <tr>
                <td>3</td>
                <td>Malu</td>
                <td>15,000</td>
            </tr>
            <tr class="even-row">
                <td>4</td>
                <td>Ponnu</td>
                <td>19,000</td>
            </tr>
        </tbody>
    </table>
</body>
</html>
```

```

        </tr>
        <tr>
            <td>5</td>
            <td>Kallu</td>
            <td>25,000</td>
        </tr>
    </tbody>
</table>
</body>
</html>

```

styles.css

```

body{
    font-family:sans-serif;
}
#mytable{
    width:100%;
    border-collapse:collapse;
}
#mytable th{
    padding-top:20px;
    padding-bottom:20px;
    text-align:left;
    color:white;
    background-color:#b22222;
    border:1px solid grey;
}
#mytable td{
    padding:8px;
    border:1px solid grey;
}
.even-row{
    background-color:#f2f2f2;
}
#mytable tr:hover{
    background-color:burlywood;
}

```

RESULT

The HTML page to display a striped table using CSS has been designed.

HTML PAGE WITH IMAGE ALIGNED USING CSS**AIM**

Create a webpage with a center aligned Image using CSS. [Hint] To center the image in the document body, use display and margin CSS properties.

SOURCE CODE

```
<html>
<head>
  <title>Center Aligned Image</title>
  <style>
    img{
      margin: 175px 380px;
      display:block;
      width:30%;
      height:40%;
      border:2px solid black;}
    h3{
      background-color:red;
      color:white;
      padding:10px;
      align:center;
      width:100%;}
  </style>
</head>
<body>
  <h3>Center an Image</h3>
  
  <h3>Town Paris</h3>
</body>
</html>
```

RESULT

The HTML page to display an image aligned using CSS has been designed.

HTML PAGE WITH NAVIGATION BAR USING CSS**AIM**

Create a fixed full size side navigation bar using CSS.

- a) Create a div tag with class name 'sidenav' and hyperlinks – About us, Departments, Vision and Mission and Contact us.
- b) Create a div with class name 'main' and h1 tag for heading 'side bar example'.
- c) CSS for anchor tag
 - Set as Block element.
 - Text decoration none
 - Top, right, bottom, left padding 6px, 8px, 6px and 16px respectively.
 - Text color white.
- d) CSS for side nav div tag
 - Height stretches full document height.
 - Width 160px, Padding top 20px.
 - Background color green.
 - Use position, top, left properties to create a fixed full size side navigation bar on top left corner.
 - Highlight menus on mouse over by setting 'red' Text color.
- e) CSS for main div tag
 - Left margin should be same as the width of the sidenav div.
 - Top and bottom paddings are 0px
 - Right and left paddings are 10px
 - Set 2000px as height.

SOURCE CODE

```
<html>
<head>
  <title>Side Navigation Bar</title>
  <style>
    a{
      display:block;
      text-decoration:none;
      padding:6px 8px 6px 16px;
      color:white;}
    .sidenav{
      height:100%;
      width:160px;
      padding-top:20px;
      background-color:green;
      float:left;}
    a:hover{
      color:red;}
    .main{
      margin-left:160px;
      padding:0px 10px 0px 10px;
      /*height:2000px;*/
      float:center;}
  </style>
</head>
```

```
<body>
  <div class="sidenav">
    <a href="">About Us</a>
    <br><a href="">Departments</a>
    <br><a href="">Vision and Mission</a>
    <br><a href="">Contact Us</a>
  </div>
  <div class="main"><h1>Side Bar Example</h1></div>
</body>
</html>
```

RESULT

The HTML page to display a navigation bar using CSS has been designed.

CHANGE BACKGROUND COLOUR OF WEBPAGE USING JAVASCRIPT**AIM**

Develop a web application using JavaScript to change the background color of the webpage when the following events of the button “change background color” occur. [Hint: use addEventListener Method]

- a. Double click – background color changed to green.
- b. Single click – background color changed to red.

SOURCE CODE

```
<html>
<head>
  <title>Background Color Changer</title>
  <style>
    body{
      font-family:sans-serif;
      display:flex;
      justify-content:center;
      align-items:center;
    }
    button
    {
      padding:10px 20px;
      font-size:16px;
    }
  </style>
</head>
<body>
  <button id="changecolor">Change Background Color</button>
  <script>
    function changetored()
    {
      document.body.style.backgroundColor="red";
    }
    function changetogreen()
    {
      document.body.style.backgroundColor="green";
    }
    const button=document.getElementById('changecolor');
    button.addEventListener('click',changetored);
    button.addEventListener('dblclick',changetogreen);
  </script>
</body>
</html>
```

RESULT

The HTML page to change background colour of webpage using JavaScript has been designed.

CHANGE IMAGES IN WEBPAGE USING JAVASCRIPT**AIM**

Create a web application using JavaScript to turn on / off the given light bulb. Hints: change the 'src' attribute of the image tag when clicking buttons.

SOURCE CODE

```
<html>
<head>
  <title>Light Bulb Switch</title>
  <style>
    body{
      font-family:sans-serif;
      display:flex;
      flex-direction:column;
      justify-content:center;
      align-items:center;
    }
    button{
      padding:10px 20px;
      font-size:16px;
    }
    img{
      width:200px;
      margin-bottom:20px;
    }
  </style>
</head>
<body>
  
  <div>
    <button id="turnon">Turn On</button>
    <button id="turnoff">Turn Off</button>
  </div>
  <script>
    const lightbulb=document.getElementById('lightbulb');
    function turnbulbon(){
      lightbulb.src="on.jpeg";
    }
    function turnbulboff(){
      lightbulb.src="off.jpeg";
    }
    document.getElementById('turnon').addEventListener('click',turnbulbon);
    document.getElementById('turnoff').addEventListener('click',turnbulboff);
  </script>
</body>
</html>
```

RESULT

The HTML page to change images in webpage using JavaScript has been designed.

VALIDATE INPUT FIELDS IN A FORM USING JAVASCRIPT**AIM**

Develop a web application using JavaScript to validate the Name, Email and Mobile number fields of the form created in Experiment No. 5.

SOURCE CODE

```
<html>
  <head>
    <title>Form Validation</title>
  </head>
  <body>
    <center>
      <h3>STUDENT REGISTRATION FORM</h3>
      Using asterisks(<font color='red'>*</font>) for required fields.
      <table border=1 width=40% cellpadding=10>
        <form id="myForm">
          <tr>
            <td>FIRST NAME<font color='red'>*</font></td>
            <td><input type="text" id="name">&nbsp;(max 30
              characters)</td>
          </tr>
          <tr>
            <td>LAST NAME<font color='red'>*</font></td>
            <td><input type="text" id="name2">&nbsp;(max 30
              characters)</td>
          </tr>
          <tr>
            <td>DATE OF BIRTH</td>
            <td>
              <select><option>Day:</option></select>&nbsp;
              <select><option>Month:</option></select>&nbsp;
              <select><option>Year:</option></select></td>
          </tr>
          <tr>
            <td>EMAIL ID<font color='red'>*</font></td>
            <td><input type="email" id="email"></td>
          </tr>
          <tr>
            <td>MOBILE NUMBER<font color='red'>*</font></td>
            <td><input type="text" id="phone">&nbsp;(10-digit number ) </td>
          </tr>
          <tr>
            <td>GENDER</td>
            <td><input type="radio">Male<input type="radio">
              Female</td>
          </tr>
          <tr>
            <td>ADDRESS</td>
            <td><input type="textarea"></td>
```

```

</tr>
<tr>
    <td>CITY</td>
    <td><input type="text">&nbsp;(max 30 characters)</td>
</tr>
<tr>
    <td>PINCODE</td>
    <td><input type="text">&nbsp;(max 6 characters)</td>
</tr>
<tr>
    <td>STATE</td>
    <td><input type="text">&nbsp;(max 30 characters)</td>
</tr>
<tr>
    <td>COUNTRY</td>
    <td><input type="text">&nbsp;(max 30 characters)</td>
</tr>
<tr>
    <td>HOBBIES</td>
    <td>Drawing<input type="checkbox"> Singng
    <input type="checkbox"> Dancing<input type="checkbox">
    Sketching<input type="checkbox"><br>Others
    <input type="checkbox"><input type="text"></td>
</tr>
<tr>
    <td>QUALIFICATION</td>
    <td>
        <table>
            <tr>
                <th>SL.NO.</th>
                <th>Examination</th>
                <th>Board</th>
                <th>Percentage</th>
                <th>Year of Passing</th>
            </tr>
            <tr>
                <td>1</td>
                <td>Class X</td>
                <td><input type="text"></td>
                <td><input type="text"></td>
                <td><input type="text"></td>
            </tr>
            <tr>
                <td>2</td>
                <td>Class XII</td>
                <td><input type="text"></td>
                <td><input type="text"></td>
                <td><input type="text"></td>
            </tr>
            <tr>
                <td>3</td>
                <td>Graduation</td>

```

```

        <td><input type="text"></td>
        <td><input type="text"></td>
        <td><input type="text"></td>
    </tr>
    <tr>
        <td>4</td>
        <td>Masters</td>
        <td><input type="text"></td>
        <td><input type="text"></td>
        <td><input type="text"></td>
    </tr>
    <tr>
        <td></td>
        <td></td>
        <td><center>(10 char max)</center></td>
        <td><center>(upto 2 decimal)</center></td>
        <td></td>
    </tr>
</table>
</td>
</tr>
<tr>
    <td>COURSES<br>APPLIED FOR</td>
    <td>MCA<input type="radio">M.TECH<input type="radio">
    M.Sc<input type="radio">Ph.D.<input type="radio"></td>
</tr>
<tr>
    <td>TYPE YOUR PASSWORD</td>
    <td><input type="password">&nbsp;(max 30 characters)</td>
</tr>
<tr>
    <td>UPLOAD YOUR PHOTO</td>
    <td><input type="file"></td>
</tr>
<tr>
    <td>DATE OF TC</td>
    <td><input type="date"></td>
</tr>
<tr >
    <td colspan="2"><center><input type="submit" onclick=
    "validateForm()">&nbsp;<input type="submit" value=
    "Reset"></center></td>
</tr>
</form>
</table>
</center>
<script>
    function checkEmptyFields() {
        const name = document.getElementById('name').value.trim();
        const name2 = document.getElementById('name2').value.trim();
        const email = document.getElementById('email').value.trim();
        const phone = document.getElementById('phone').value.trim();
    }

```

```

        return name === " || email === " || phone === " || name2 === ";
    }
    function verifyEmail(email) {
        const atPosition = email.indexOf("@");
        const dotPosition = email.lastIndexOf(".");
        if (atPosition < 1 || dotPosition < atPosition + 2 || dotPosition + 2 >=
            email.length) {
            return false;
        }
        return true;
    }
    function verifyName(name) {
        if( name.length < 1){
            return false;
        }
        for (let i=0;i<name.length;i++){
            if(!isNaN(name[i]) && name[i]!==""){
                return false;
            }
        }
        return true;
    }
    function verifylastName(name2) {
        if( name.length < 1){
            return false;
        }
        for (let i=0;i<name2.length;i++){
            if(!isNaN(name2[i]) && name2[i]!==""){
                return false;
            }
        }
        return true;
    }
    function verifyPhone(phone) {
        if (phone.length !== 10 || isNaN(phone)) {
            return false;
        }
        return true;
    }
    function validateForm() {
        const email = document.getElementById('email').value.trim();
        const name = document.getElementById('name').value.trim();
        const name2 = document.getElementById('name2').value.trim();
        const phone = document.getElementById('phone').value.trim();
        if (checkEmptyFields()) {
            alert('Please fill in all required fields. ');
        }
        else if (!verifyEmail(email)) {
            alert("Please enter a valid email address. ");
        }
        else if (!verifyName(name)) {

```

```
        alert('Please enter a valid name. The first name should not include a
        number.');
```

```
    }
    else if (!verifyName(name2)) {
        alert('Please enter a valid name. The last name should not include a
        number.');
```

```
    }
    else if (!verifyPhone(phone)) {
        alert('Please enter a valid phone number. The number should be
        numeric and must be 10 digits long.');
```

```
    }
    else {
        alert('Form submitted successfully');
```

```
    }
}
</script>
</body>
</html>
```

RESULT

The HTML page to validate input fields in a form using JavaScript has been designed.