

**SRI SIVASUBRAMANIYA NADAR  
COLLEGE OF ENGINEERING**

(AN AUTONOMOUS INSTITUTION, AFFILIATED TO ANNA UNIVERSITY, CHENNAI)

RAJIV GANDHI SALAI (OMR), KALAVAKKAM – 603110

**LABORATORY RECORD**

**UIT1611 – WEB PROGRAMMING LABORATORY**

**Name : ...M Badri Narayanan.....**

**Reg. No. : ...185002018.....**

**Dept. : .....IT..... Sem. : ....VI.... Sec. : .....A.....**



**ANNA UNIVERSITY**  
**BONAFIDE CERTIFICATE**

Certified that this is the bonafide record of  
the practical work done for the

.....UIT1611 Web Programming.....lab

by

Name.....M Badri Narayanan.....

Register Number.....185002018.....

of Department of .....Information Technology.....

Sri Sivasubramaniya Nadar College of Engineering,  
Kalavakkam, Chennai

during the academic year .....2021-22.....

Staff In-Charge

Head

Department of .....

*Submitted for the University Examination held at*

*Sri Sivasubramaniya Nadar College of Engineering on ....06/05/21.....*

Internal Examiner

External Examiner

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Name: \_\_\_\_\_ M Badri Narayanan \_\_\_\_\_ Reg. No. : \_\_\_\_\_ 185002018 \_\_\_\_\_

Sem. : \_\_\_\_\_ VI \_\_\_\_\_ Sec. : \_\_\_\_\_ A \_\_\_\_\_

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## Design a website using HTML and CSS

<b>Name:</b>	M Badri Narayanan
<b>Reg No:</b>	185002018
<b>Semester:</b>	VI
<b>Exercise Number:</b>	1
<b>Date:</b>	February 2, 2021

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### Aim

To design a website using HTML and DHTML, Internal hyperlinking, basic text formatting, images, forms, frames, links, tables, CSS (inline, internal and external), animations, transitions, SVG, Geolocation API, audio, video etc.

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### Procedure

- Decide on an idea for the website.
  - Create the HTML for the different pages.
  - Separate each page into different sections, header and footer.
  - Use forms, images, videos, audio, lists, tables, frames etc.
  - Use Geolocation and PositionStack API to get the city and country of the user.
  - Use SVG for the logo.
  - Link the different pages using hyperlinks.
  - Add inline, internal and external CSS using tag, id, class selectors to style the webpages.
  - Use animations, transitions etc. to make the page look better.
-

---

## Tags

```
<html>
    <head>
    </head>
    <body>
        <header>
        </header>
        <form>
        </form>
        <h1></h1>
        <h2></h2>
        <h3></h3>
        <h4></h4>
        <h5></h5>
        <div></div>
        <nav></nav>
        <p></p>
        <audio></audio>
        <video></video>
        <a href = 'Link'></a>
        <img src = "Image File Name"></img>
        <iframe></iframe>
        <map></map>
        <ul>
            <li>Item1</li>
            <li>Item2</li>
        </ul>
        <ol>
            <li>Item1</li>
            <li>Item2</li>
        </ol>
        <table>
            <tr>
                <td> column 1 </td>
                <td> column 2 </td>
            </tr>
        </table>
        <svg>
        <canvas></canvas>
        <footer>
        </footer>
    </body>
</html>
```

---

---

<b>Experiment Name:</b>	HTML4
<b>Exercise Number:</b>	1A
<b>Date:</b>	February 2, 2021

---

Horizontal rule, Links, Image Insertion, Ordered and unordered list, Internal hyper linking, Meta, Simple table, Form, Frames, and Hotspot creation.

---

## HTML Code

```
<!DOCTYPE>
<html lang = "en">
<head>

    <meta charset="UTF-8">
    <meta name="description" content="Portfolio Web Page">
    <meta name="keywords" content="HTML5, CSS3, JavaScript">
    <meta name="author" content="M Badri Narayanan">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <title>My First Web Page</title>
    <link rel="icon" type="image/x-icon" href="images/favicon.ico" />
    <link rel="stylesheet" href="style.css">

<style>
    p.static
    {
        position: static;
        text-align: center;
        color: red;
    }
    p.border
    {
        width: 11em;
        border-style: groove;
        word-wrap: break-word;
    }
    div.transition
    {
        width: 70px;
        height: 70px;
        background: navy;
        color: white;
        transition: width 2s, height 4s;
    }
    div.transition:hover
    {
        width: 100px;
        height: 100px;
    }
    canvas
    {
        display : inline-block;
    }
</style>
<body>
    <header>
```

```

<h5>M Badri Narayanan Curriculum Vitae</h5><br>
<div id ="animated_div">Badri</div>
<audio controls>
    <source src="Audio.mp3" type="audio/mpeg">
    Your browser does not support the audio element.
</audio>
<video height = 200 video = 200 controls>
    <source src="Video.mp4" type="video/mp4">
    Your browser does not support the video tag.
</video>
<br>
<br>
<button onclick = "getLocation()">Click Here To Get Your
    ↵ Location</button>
<p id = "location"></p>
<script>
    var x = document.getElementById("location");

        function getLocation()
        {
            if (navigator.geolocation)
            {
                navigator.geolocation.
                    getCurrentPosition(showPosition);
            }
            else
            {
                x.innerHTML = "Geolocation is not
                    ↵ supported by this browser.";
            }
        }
        function showPosition(position)
        {
            const name=<iframe
                ↵ src='http://maps.google.com/maps?q=';
            const name2=&z=16&output=embed' height='450'
                ↵ width='600'>;
            x.innerHTML=
                ↵ name+position.coords.latitude+' , '
                ↵ position.coords.longitude+name2;
        }
    </script>
</header>

<h1 class = "header" style="color:navy;">M Badri Narayanan</h1>

<img src = "Profile.png" alt = "My Profile Picture" usemap="#profile"
    ↵ height = "200" width = "200"><br>

<map name="profile">
    <area shape = "rect" coords="0,0,100,100" alt = "My GitHub
        ↵ Profile" href="https://github.com/MBadriNarayanan"
        ↵ target="_blank">
    <area shape = "rect" coords="100,100,200,200" alt = "My
        ↵ LinkedIn Profile"
        ↵ href="https://www.linkedin.com/in/mbadrinarayanan"
        ↵ target="_blank">
</map>

<h3>My Social Networking Sites</h3>
    <ol>

```

```

        <li><a href="https://github.com/MBadriNarayanan"
        ↵ target="_blank">GitHub</span></a></li>
        <li><a href="https://www.linkedin.com/in/mbadrinarayanan"
        ↵ target="_blank">LinkedIn</a></li>
    </ol>

    <iframe src="https://mbadrinarayanan.github.io/" width="400"
    ↵ height="280" title="My existing portfolio website"></iframe>

    <h3>Summary</h3>

    <p class = "static">I am currently pursuing my bachelors in
    ↵ Information Technology from SSN College of Engineering, Chennai. I
    ↵ am interested in the fields of Machine Learning , Deep Learning,
    ↵ Natural Language Processing, Computer Vision and Data Science.I
    ↵ would like to work in the aforementioned fields and develop real
    ↵ world solutions. I am also an avid sports fan and my hobbies
    ↵ include playing cricket, listening to music, watching movies and
    ↵ reading books.</p>

    <a href = "#EducationDetails">My Education Details</a><br>
    <a href = "#ExtraCurricular">Extra Curricular</a><br>
    <a href = "#Awards">Awards</a><br>
    <a href = "#Contact">Contact</a>

    <a name = "EducationDetails"></a>
    <h4>My Education Details</h4>
    <table border="1" align="left" width="40%">
        <tr><td>College / School</td><td>Grade</td><td>Marks
        ↵ Obtained</td></tr>
        <tr><td>SSN College of Engineering, Chennai</td><td>BTech
        ↵ Information Technology</td><td>Current GPA : 8.828 (V
        ↵ Semester)</td></tr>
        <tr><td>Vidya Mandir Senior Secondary School,
        ↵ Chennai</td><td>12th Grade, Computer Science
        ↵ Group</td><td>94.4 %</td></tr>
        <tr><td>Vidya Mandir Senior Secondary School,
        ↵ Chennai</td><td>10th Grade</td><td>8.828</td></tr>
    </table>

    <a name = "ExtraCurricular"></a>
    <h4>Extra Curricular</h4>
    <ul>
        <li>Volunteering with Chennai Volunteers to teach spoken
        ↵ English classes for Tamil medium students.</li>
        <li>Captained the school cricket team</li>
        <li>Represented the college cricket team</li>
    </ul>

    <a name = "Awards"></a>
    <h4>Awards</h4>
    <ul>
        <li>Won the 2nd best project in Computer Science in
        ↵ 12th grade.</li>
        <li>Stood school 3rd in Chemistry in
        ↵ 12th grade.</li>
    </ul>

    <a name = "Contact"></a>

```

```

<h4>Contact</h4>
<form method="post" action="#">
    <label for = "title">Title</label><br>
        <input type = "text" name = "title" id = "title"
            ↵ placeholder = "Mr"><br>
    <label for = "fname">First Name</label><br>
        <input type = "text" name = "firstname" id = "fname"
            ↵ placeholder = "John"><br>
    <label for = "lname">Last Name</label><br>
        <input type = "text" name = "lastname" id = "lname"
            ↵ placeholder = "Doe"><br>
    <label for="mobile">Phone Number</label><br>
        <input type = "mobile" id = "mobile" name = "mobile"
            ↵ placeholder = "9876543210"><br>
    <label for = "email">Email</label><br>
        <input type = "text" name = "email" id = "email"
            ↵ placeholder = "johndoe@xyz.com"><br>
    <label for = "message">Message</label><br>
        <textarea name = "message" id="message" placeholder =
            ↵ "Write your message..." style="margin: 0px; width:
            ↵ 168px; height: 91px;"></textarea><br><br>
        <input type = "submit" value = "Send Message">
</form>

<footer>
    <div class = "transition">M Badri Naryanan</div><br>
    <svg width="100" height="100">
        <circle cx="50" cy="50" r="40" stroke="green"
            ↵ stroke-width="4" fill="red" />
        <a href="https://mbadrinarayanan.github.io/" target
            ↵ ="_blank"><text x="18" y="53">Click
            ↵ Here</text></a>
    </svg>
    <p class = "border">Web Page created for Web Programming Lab
        ↵ in the VI Semester.</p>
    <canvas id="Canvas" width="200" height="100" style="border:1px
        ↵ solid #d3d3d3;">Your browser does not support the HTML
        ↵ canvas tag.</canvas>
    <script>
        var c = document.getElementById("Canvas");
        var ctx = c.getContext("2d");

        var grd = ctx.createRadialGradient(75,50,5,90,60,100);
        grd.addColorStop(0,"red");
        grd.addColorStop(1,"white");

        ctx.fillStyle = grd;
        ctx.fillRect(10,10,150,80);
    </script>
</footer>

</body>
</html>

```

---

---

## CSS Code

```
body
{
    background-color: linen;
}
ul
{
    background-color: lightblue;
    width: 20%;
    padding: 25px;
}
.header
{
    background-color: rgb(255, 253, 208);
    padding: 20px;
    text-align: center;
}
#animated_div{
    width:70px;
    height:47px;
    background: #92B901;
    color: white;
    position: relative;
    font-weight:bold;
    font-size:20px;
    padding:10px;
    animation:animated_div 5s 1;
    -moz-animation:animated_div 5s 1;
    -webkit-animation:animated_div 5s 1;
    -o-animation:animated_div 5s 1;
    border-radius:5px;
    -webkit-border-radius:5px;
}

@keyframes animated_div
{
0% {transform: rotate(0deg);left:0px;}
25% {transform: rotate(20deg);left:0px;}
50% {transform: rotate(0deg);left:500px;}
55% {transform: rotate(0deg);left:500px;}
70% {transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {transform: rotate(-360deg);left:0px;}
}

@-webkit-keyframes animated_div
{
0% {-webkit-transform: rotate(0deg);left:0px;}
25% {-webkit-transform: rotate(20deg);left:0px;}
50% {-webkit-transform: rotate(0deg);left:500px;}
55% {-webkit-transform: rotate(0deg);left:500px;}
70% {-webkit-transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {-webkit-transform: rotate(-360deg);left:0px;}
}

@-moz-keyframes animated_div
{
0% {-moz-transform: rotate(0deg);left:0px;}
25% {-moz-transform: rotate(20deg);left:0px;}
```

```

50% {-moz-transform: rotate(0deg);left:500px;}
55% {-moz-transform: rotate(0deg);left:500px;}
70% {-moz-transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {-moz-transform: rotate(-360deg);left:0px;}
}

@-o-keyframes animated_div
{
0% {transform: rotate(0deg);left:0px;}
25% {transform: rotate(20deg);left:0px;}
50% {transform: rotate(0deg);left:500px;}
55% {transform: rotate(0deg);left:500px;}
70% {transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {transform: rotate(-360deg);left:0px;}
}

```

---

## Output

Figure 1: HTML4 Output Pic1

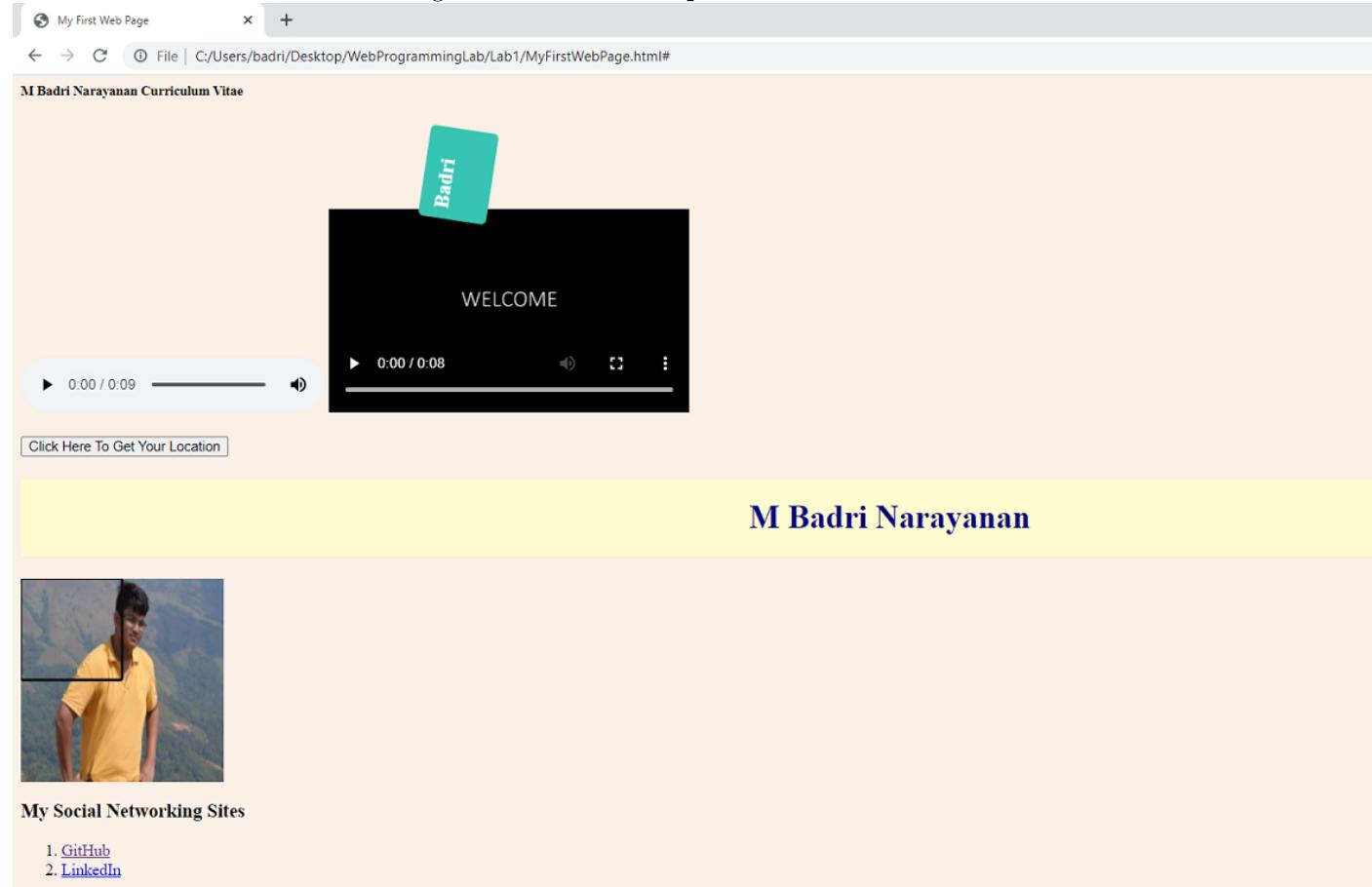


Figure 2: HTML4 Output Pic2

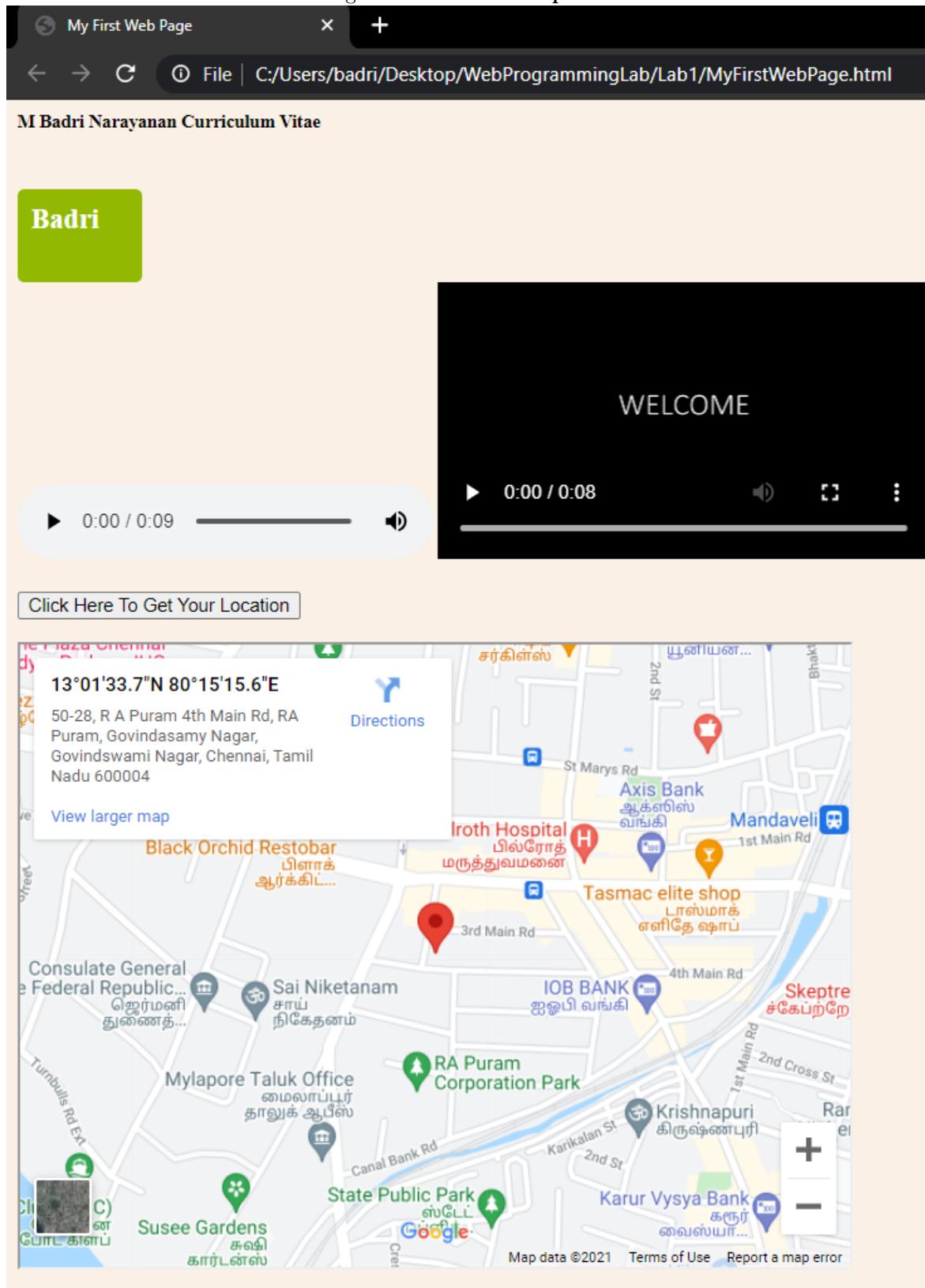
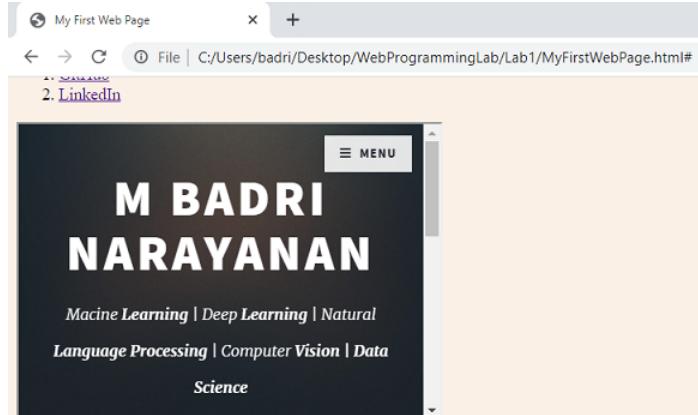


Figure 3: HTML4 Output Pic3



#### Summary

I am currently pursuing my bachelors in Information Technology from SSN College of Engineering, Chennai. I am interested in the fields of Machine Learning , Deep Learning, Natural Language Processing in the aforementioned fields and develop real world solutions. I am also an avid sports fan and my hobbies include playing cricket, listening to music, watching movies.

[My Education Details](#)

[Extra Curricular](#)

[Awards](#)

[Contact](#)

#### My Education Details

College / School	Grade	Marks Obtained
SSN College of Engineering, Chennai	BTech Information Technology	Current GPA : 8.8 (IV Semester)
Vidya Mandir Senior Secondary School, Chennai	12 <sup>th</sup> Grade, Computer Science Group	94.4 %
Vidya Mandir Senior Secondary School, Chennai	10 <sup>th</sup> Grade	8.8

Figure 4: HTML4 Output Pic4

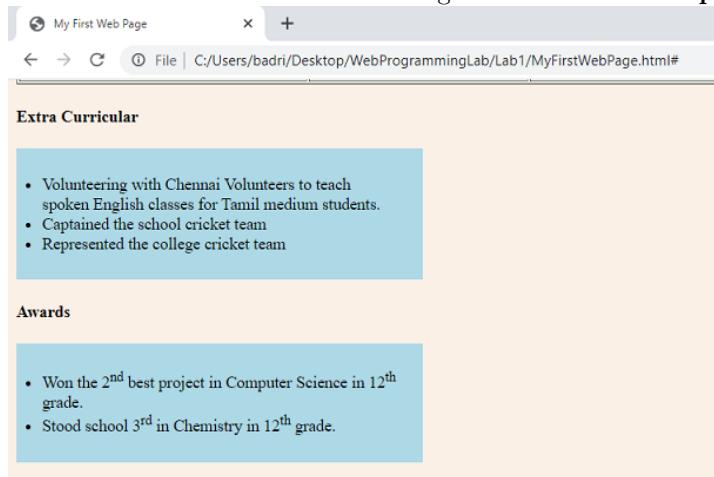
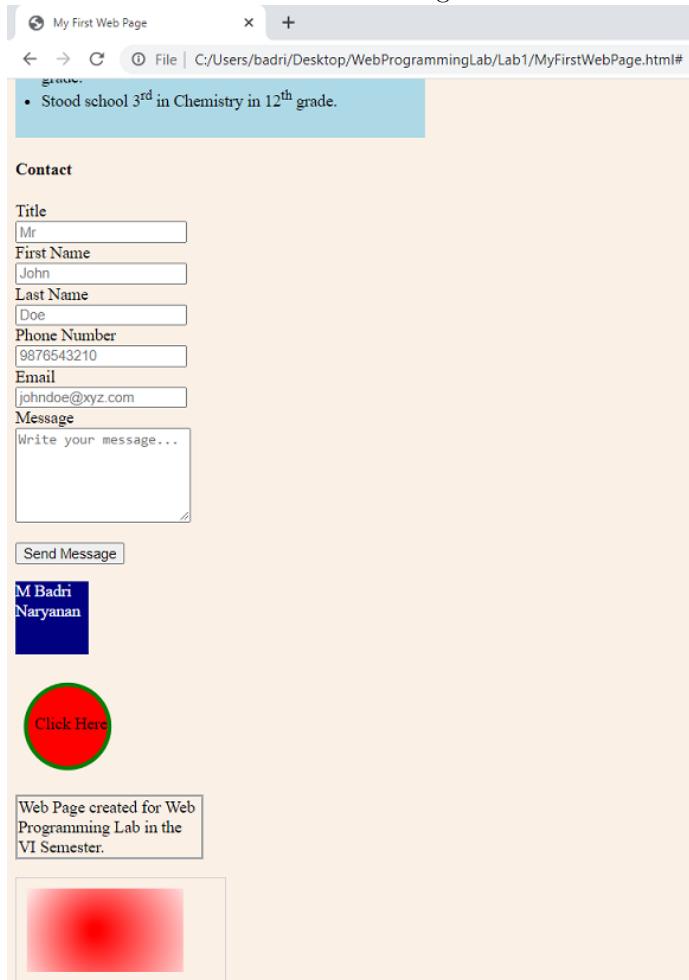


Figure 5: HTML4 Output Pic5



---

<b>Experiment Name:</b>	CSS2
<b>Exercise Number:</b>	1B
<b>Date:</b>	February 9, 2021

---

Types of CSS (inline, internal and external), Selectors, Box model, Layout, and Positioning.

---

## HTML Code

```
<!DOCTYPE>
<html lang = "en">
<head>

    <meta charset="UTF-8">
    <meta name="description" content="Portfolio Web Page">
    <meta name="keywords" content="HTML5, CSS3, JavaScript">
    <meta name="author" content="M Badri Narayanan">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <title>My First Web Page</title>
    <link rel="icon" type="image/x-icon" href="images/favicon.ico" />
    <link rel="stylesheet" href="style.css">

<style>
    p.static
    {
        position: static;
        text-align: center;
        color: red;
    }
    p.border
    {
        width: 11em;
        border-style: groove;
        word-wrap: break-word;
    }
    div.transition
    {
        width: 70px;
        height: 70px;
        background: navy;
        color: white;
        transition: width 2s, height 4s;
    }
    div.transition:hover
    {
        width: 100px;
        height: 100px;
    }
    canvas
    {
        display : inline-block;
    }
</style>
<body>
    <header>
```

```

<h5>M Badri Narayanan Curriculum Vitae</h5><br>
<div id ="animated_div">Badri</div>
<audio controls>
    <source src="Audio.mp3" type="audio/mpeg">
    Your browser does not support the audio element.
</audio>
<video height = 200 video = 200 controls>
    <source src="Video.mp4" type="video/mp4">
    Your browser does not support the video tag.
</video>
<br>
<br>
<button onclick = "getLocation()">Click Here To Get Your
    ↵ Location</button>
<p id = "location"></p>
<script>
    var x = document.getElementById("location");

        function getLocation()
        {
            if (navigator.geolocation)
            {
                navigator.geolocation.
                    getCurrentPosition(showPosition);
            }
            else
            {
                x.innerHTML = "Geolocation is not
                    ↵ supported by this browser.";
            }
        }
        function showPosition(position)
        {
            const name=<iframe
                ↵ src='http://maps.google.com/maps?q=';
            const name2=&z=16&output=embed' height='450'
                ↵ width='600'>;
            x.innerHTML=
                ↵ name+position.coords.latitude+' , '
                ↵ position.coords.longitude+name2;
        }
    </script>
</header>

<h1 class = "header" style="color:navy;">M Badri Narayanan</h1>

<img src = "Profile.png" alt = "My Profile Picture" usemap="#profile"
    ↵ height = "200" width = "200"><br>

<map name="profile">
    <area shape = "rect" coords="0,0,100,100" alt = "My GitHub
        ↵ Profile" href="https://github.com/MBadriNarayanan"
        ↵ target="_blank">
    <area shape = "rect" coords="100,100,200,200" alt = "My
        ↵ LinkedIn Profile"
        ↵ href="https://www.linkedin.com/in/mbadrinarayanan"
        ↵ target="_blank">
</map>

<h3>My Social Networking Sites</h3>
    <ol>

```

```

        <li><a href="https://github.com/MBadriNarayanan"
        ↵ target="_blank">GitHub</span></a></li>
        <li><a href="https://www.linkedin.com/in/mbadrinarayanan"
        ↵ target="_blank">LinkedIn</a></li>
    </ol>

    <iframe src="https://mbadrinarayanan.github.io/" width="400"
    ↵ height="280" title="My existing portfolio website"></iframe>

    <h3>Summary</h3>

    <p class = "static">I am currently pursuing my bachelors in
    ↵ Information Technology from SSN College of Engineering, Chennai. I
    ↵ am interested in the fields of Machine Learning , Deep Learning,
    ↵ Natural Language Processing, Computer Vision and Data Science.I
    ↵ would like to work in the aforementioned fields and develop real
    ↵ world solutions. I am also an avid sports fan and my hobbies
    ↵ include playing cricket, listening to music, watching movies and
    ↵ reading books.</p>

    <a href = "#EducationDetails">My Education Details</a><br>
    <a href = "#ExtraCurricular">Extra Curricular</a><br>
    <a href = "#Awards">Awards</a><br>
    <a href = "#Contact">Contact</a>

    <a name = "EducationDetails"></a>
    <h4>My Education Details</h4>
    <table border="1" align="left" width="40%">
        <tr><td>College / School</td><td>Grade</td><td>Marks
        ↵ Obtained</td></tr>
        <tr><td>SSN College of Engineering, Chennai</td><td>BTech
        ↵ Information Technology</td><td>Current GPA : 8.828 (V
        ↵ Semester)</td></tr>
        <tr><td>Vidya Mandir Senior Secondary School,
        ↵ Chennai</td><td>12th Grade, Computer Science
        ↵ Group</td><td>94.4 %</td></tr>
        <tr><td>Vidya Mandir Senior Secondary School,
        ↵ Chennai</td><td>10th Grade</td><td>8.828</td></tr>
    </table>

    <a name = "ExtraCurricular"></a>
    <h4>Extra Curricular</h4>
    <ul>
        <li>Volunteering with Chennai Volunteers to teach spoken
        ↵ English classes for Tamil medium students.</li>
        <li>Captained the school cricket team</li>
        <li>Represented the college cricket team</li>
    </ul>

    <a name = "Awards"></a>
    <h4>Awards</h4>
    <ul>
        <li>Won the 2nd best project in Computer Science in
        ↵ 12th grade.</li>
        <li>Stood school 3rd in Chemistry in
        ↵ 12th grade.</li>
    </ul>

    <a name = "Contact"></a>

```

```

<h4>Contact</h4>
<form method="post" action="#">
    <label for = "title">Title</label><br>
        <input type = "text" name = "title" id = "title"
            ↵ placeholder = "Mr"><br>
    <label for = "fname">First Name</label><br>
        <input type = "text" name = "firstname" id = "fname"
            ↵ placeholder = "John"><br>
    <label for = "lname">Last Name</label><br>
        <input type = "text" name = "lastname" id = "lname"
            ↵ placeholder = "Doe"><br>
    <label for="mobile">Phone Number</label><br>
        <input type = "mobile" id = "mobile" name = "mobile"
            ↵ placeholder = "9876543210"><br>
    <label for = "email">Email</label><br>
        <input type = "text" name = "email" id = "email"
            ↵ placeholder = "johndoe@xyz.com"><br>
    <label for = "message">Message</label><br>
        <textarea name = "message" id="message" placeholder =
            ↵ "Write your message..." style="margin: 0px; width:
            ↵ 168px; height: 91px;"></textarea><br><br>
        <input type = "submit" value = "Send Message">
</form>

<footer>
    <div class = "transition">M Badri Naryanan</div><br>
    <svg width="100" height="100">
        <circle cx="50" cy="50" r="40" stroke="green"
            ↵ stroke-width="4" fill="red" />
        <a href="https://mbadrinarayanan.github.io/" target
            ↵ ="_blank"><text x="18" y="53">Click
            ↵ Here</text></a>
    </svg>
    <p class = "border">Web Page created for Web Programming Lab
        ↵ in the VI Semester.</p>
    <canvas id="Canvas" width="200" height="100" style="border:1px
        ↵ solid #d3d3d3;">Your browser does not support the HTML
        ↵ canvas tag.</canvas>
    <script>
        var c = document.getElementById("Canvas");
        var ctx = c.getContext("2d");

        var grd = ctx.createRadialGradient(75,50,5,90,60,100);
        grd.addColorStop(0,"red");
        grd.addColorStop(1,"white");

        ctx.fillStyle = grd;
        ctx.fillRect(10,10,150,80);
    </script>
</footer>

</body>
</html>

```

---

---

## CSS Code

```
body
{
    background-color: linen;
}
ul
{
    background-color: lightblue;
    width: 20%;
    padding: 25px;
}
.header
{
    background-color: rgb(255, 253, 208);
    padding: 20px;
    text-align: center;
}
#animated_div{
    width:70px;
    height:47px;
    background: #92B901;
    color: white;
    position: relative;
    font-weight:bold;
    font-size:20px;
    padding:10px;
    animation:animated_div 5s 1;
    -moz-animation:animated_div 5s 1;
    -webkit-animation:animated_div 5s 1;
    -o-animation:animated_div 5s 1;
    border-radius:5px;
    -webkit-border-radius:5px;
}

@keyframes animated_div
{
0% {transform: rotate(0deg);left:0px;}
25% {transform: rotate(20deg);left:0px;}
50% {transform: rotate(0deg);left:500px;}
55% {transform: rotate(0deg);left:500px;}
70% {transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {transform: rotate(-360deg);left:0px;}
}

@-webkit-keyframes animated_div
{
0% {-webkit-transform: rotate(0deg);left:0px;}
25% {-webkit-transform: rotate(20deg);left:0px;}
50% {-webkit-transform: rotate(0deg);left:500px;}
55% {-webkit-transform: rotate(0deg);left:500px;}
70% {-webkit-transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {-webkit-transform: rotate(-360deg);left:0px;}
}

@-moz-keyframes animated_div
{
0% {-moz-transform: rotate(0deg);left:0px;}
25% {-moz-transform: rotate(20deg);left:0px;}
```

```

50% {-moz-transform: rotate(0deg);left:500px;}
55% {-moz-transform: rotate(0deg);left:500px;}
70% {-moz-transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {-moz-transform: rotate(-360deg);left:0px;}
}

@-o-keyframes animated_div
{
0% {transform: rotate(0deg);left:0px;}
25% {transform: rotate(20deg);left:0px;}
50% {transform: rotate(0deg);left:500px;}
55% {transform: rotate(0deg);left:500px;}
70% {transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {transform: rotate(-360deg);left:0px;}
}

```

---

## Output

Figure 6: CSS2 Output Pic1

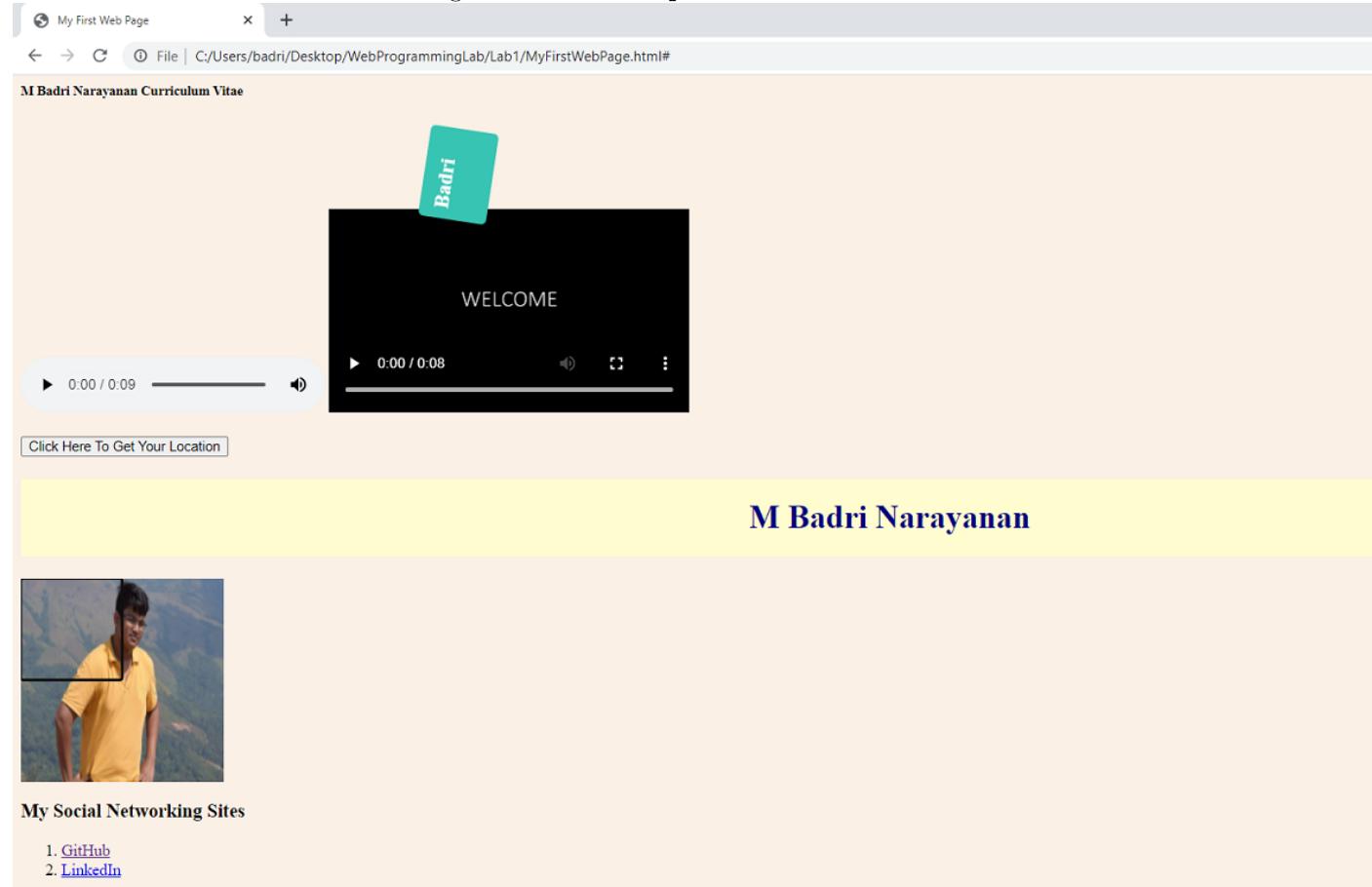


Figure 7: CSS2 Output Pic2

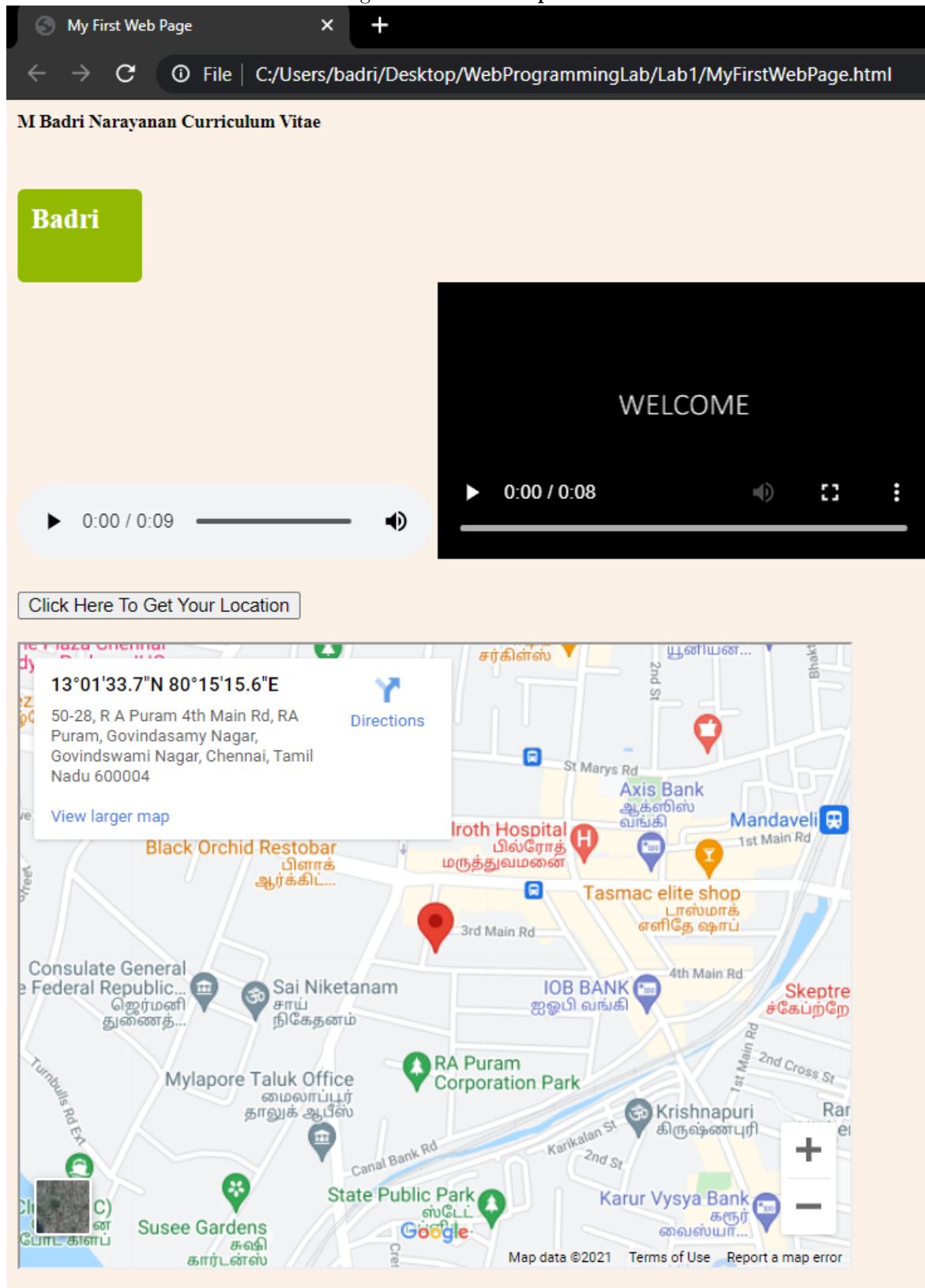


Figure 8: CSS2 Output Pic3

The screenshot shows a web browser window titled "My First Web Page". The address bar displays the file path: C:/Users/badri/Desktop/WebProgrammingLab/Lab1/MyFirstWebPage.html#. The main content area features a dark header with the name "M BADRI NARAYANAN" in large white letters, followed by a subtitle "Machine Learning | Deep Learning | Natural Language Processing | Computer Vision | Data Science". A "MENU" button is in the top right. Below the header is a "Summary" section containing a red paragraph about the author's education and interests. Under "My Education Details", there is a table showing academic records from SSN College of Engineering and Vidya Mandir Senior Secondary School. The "Extra Curricular" section lists volunteering and sports experience. The "Awards" section lists academic achievements.

**M BADRI NARAYANAN**

Machine Learning | Deep Learning | Natural Language Processing | Computer Vision | Data Science

**Summary**

I am currently pursuing my bachelors in Information Technology from SSN College of Engineering, Chennai. I am interested in the fields of Machine Learning , Deep Learning, Natural Language Processing in the aforementioned fields and develop real world solutions. I am also an avid sports fan and my hobbies include playing cricket, listening to music, watching movies etc.

[My Education Details](#)  
[Extra Curricular](#)  
[Awards](#)  
[Contact](#)

**My Education Details**

College / School	Grade	Marks Obtained
SSN College of Engineering, Chennai	BTech Information Technology	Current GPA : 8.8 (IV Semester)
Vidya Mandir Senior Secondary School, Chennai	12 <sup>th</sup> Grade, Computer Science Group	94.4 %
Vidya Mandir Senior Secondary School, Chennai	10 <sup>th</sup> Grade	8.8

**Extra Curricular**

- Volunteering with Chennai Volunteers to teach spoken English classes for Tamil medium students.
- Captained the school cricket team
- Represented the college cricket team

**Awards**

- Won the 2<sup>nd</sup> best project in Computer Science in 12<sup>th</sup> grade.
- Stood school 3<sup>rd</sup> in Chemistry in 12<sup>th</sup> grade.

Figure 9: CSS2 Output Pic4

The screenshot shows a web browser window titled "My First Web Page". The address bar displays the file path: C:/Users/badri/Desktop/WebProgrammingLab/Lab1/MyFirstWebPage.html#. The main content area features a dark header with the name "M BADRI NARAYANAN" in large white letters, followed by a subtitle "Machine Learning | Deep Learning | Natural Language Processing | Computer Vision | Data Science". A "MENU" button is in the top right. Below the header is a "Summary" section containing a red paragraph about the author's education and interests. The "Extra Curricular" section is highlighted with a light blue background and contains a bulleted list of activities. The "Awards" section is also highlighted with a light blue background and contains a bulleted list of achievements.

**M BADRI NARAYANAN**

Machine Learning | Deep Learning | Natural Language Processing | Computer Vision | Data Science

**Summary**

I am currently pursuing my bachelors in Information Technology from SSN College of Engineering, Chennai. I am interested in the fields of Machine Learning , Deep Learning, Natural Language Processing in the aforementioned fields and develop real world solutions. I am also an avid sports fan and my hobbies include playing cricket, listening to music, watching movies etc.

[My Education Details](#)  
[Extra Curricular](#)  
[Awards](#)  
[Contact](#)

**My Education Details**

College / School	Grade	Marks Obtained
SSN College of Engineering, Chennai	BTech Information Technology	Current GPA : 8.8 (IV Semester)
Vidya Mandir Senior Secondary School, Chennai	12 <sup>th</sup> Grade, Computer Science Group	94.4 %
Vidya Mandir Senior Secondary School, Chennai	10 <sup>th</sup> Grade	8.8

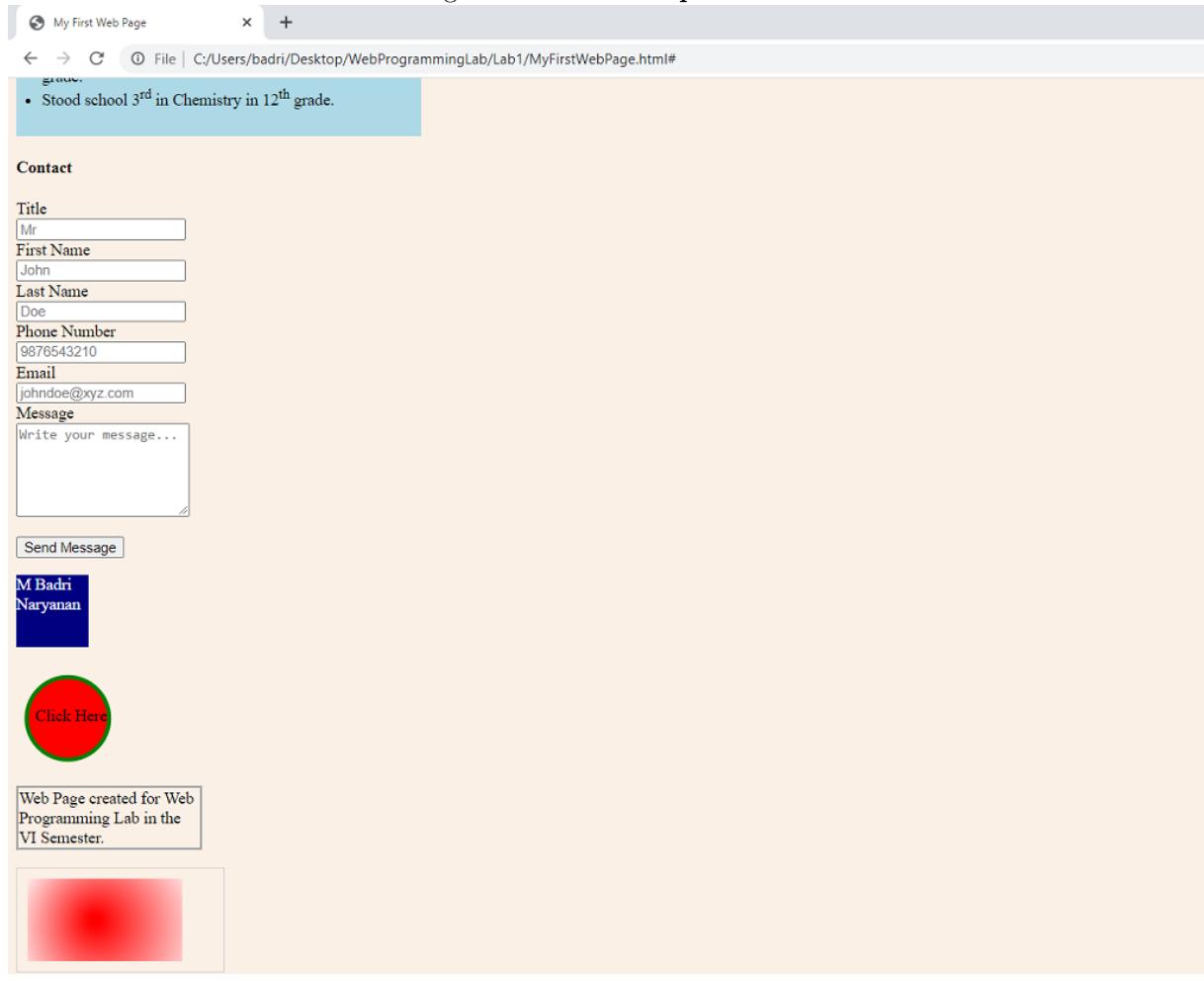
**Extra Curricular**

- Volunteering with Chennai Volunteers to teach spoken English classes for Tamil medium students.
- Captained the school cricket team
- Represented the college cricket team

**Awards**

- Won the 2<sup>nd</sup> best project in Computer Science in 12<sup>th</sup> grade.
- Stood school 3<sup>rd</sup> in Chemistry in 12<sup>th</sup> grade.

Figure 10: CSS2 Output Pic5



---

<b>Experiment Name:</b> HTML5
<b>Exercise Number:</b> 1C
<b>Date:</b> February 16, 2021

---

New Structural Elements, Audio, Video, Form creation, Canvas API, SVG, and Geo location.

---

## HTML Code

```
<!DOCTYPE>
<html lang = "en">
<head>

    <meta charset="UTF-8">
    <meta name="description" content="Portfolio Web Page">
    <meta name="keywords" content="HTML5, CSS3, JavaScript">
    <meta name="author" content="M Badri Narayanan">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <title>My First Web Page</title>
    <link rel="icon" type="image/x-icon" href="images/favicon.ico" />
    <link rel="stylesheet" href="style.css">

<style>
    p.static
    {
        position: static;
        text-align: center;
        color: red;
    }
    p.border
    {
        width: 11em;
        border-style: groove;
        word-wrap: break-word;
    }
    div.transition
    {
        width: 70px;
        height: 70px;
        background: navy;
        color: white;
        transition: width 2s, height 4s;
    }
    div.transition:hover
    {
        width: 100px;
        height: 100px;
    }
    canvas
    {
        display : inline-block;
    }
</style>
<body>
    <header>
```

```

<h5>M Badri Narayanan Curriculum Vitae</h5><br>
<div id ="animated_div">Badri</div>
<audio controls>
    <source src="Audio.mp3" type="audio/mpeg">
    Your browser does not support the audio element.
</audio>
<video height = 200 video = 200 controls>
    <source src="Video.mp4" type="video/mp4">
    Your browser does not support the video tag.
</video>
<br>
<br>
<button onclick = "getLocation()">Click Here To Get Your
    ↵ Location</button>
<p id = "location"></p>
<script>
    var x = document.getElementById("location");

        function getLocation()
        {
            if (navigator.geolocation)
            {
                navigator.geolocation.
                    getCurrentPosition(showPosition);
            }
            else
            {
                x.innerHTML = "Geolocation is not
                    ↵ supported by this browser.";
            }
        }
        function showPosition(position)
        {
            const name=<iframe
                ↵ src='http://maps.google.com/maps?q=';
            const name2=&z=16&output=embed' height='450'
                ↵ width='600'>;
            x.innerHTML=
                ↵ name+position.coords.latitude+' , '
                ↵ position.coords.longitude+name2;
        }
    </script>
</header>

<h1 class = "header" style="color:navy;">M Badri Narayanan</h1>

<img src = "Profile.png" alt = "My Profile Picture" usemap="#profile"
    ↵ height = "200" width = "200"><br>

<map name="profile">
    <area shape = "rect" coords="0,0,100,100" alt = "My GitHub
        ↵ Profile" href="https://github.com/MBadriNarayanan"
        ↵ target="_blank">
    <area shape = "rect" coords="100,100,200,200" alt = "My
        ↵ LinkedIn Profile"
        ↵ href="https://www.linkedin.com/in/mbadrinarayanan"
        ↵ target="_blank">
</map>

<h3>My Social Networking Sites</h3>
    <ol>

```

```

        <li><a href="https://github.com/MBadriNarayanan"
        ↵ target="_blank">GitHub</span></a></li>
        <li><a href="https://www.linkedin.com/in/mbadrinarayanan"
        ↵ target="_blank">LinkedIn</a></li>
    </ol>

    <iframe src="https://mbadrinarayanan.github.io/" width="400"
    ↵ height="280" title="My existing portfolio website"></iframe>

    <h3>Summary</h3>

    <p class = "static">I am currently pursuing my bachelors in
    ↵ Information Technology from SSN College of Engineering, Chennai. I
    ↵ am interested in the fields of Machine Learning , Deep Learning,
    ↵ Natural Language Processing, Computer Vision and Data Science.I
    ↵ would like to work in the aforementioned fields and develop real
    ↵ world solutions. I am also an avid sports fan and my hobbies
    ↵ include playing cricket, listening to music, watching movies and
    ↵ reading books.</p>

    <a href = "#EducationDetails">My Education Details</a><br>
    <a href = "#ExtraCurricular">Extra Curricular</a><br>
    <a href = "#Awards">Awards</a><br>
    <a href = "#Contact">Contact</a>

    <a name = "EducationDetails"></a>
    <h4>My Education Details</h4>
    <table border="1" align="left" width="40%">
        <tr><td>College / School</td><td>Grade</td><td>Marks
        ↵ Obtained</td></tr>
        <tr><td>SSN College of Engineering, Chennai</td><td>BTech
        ↵ Information Technology</td><td>Current GPA : 8.828 (V
        ↵ Semester)</td></tr>
        <tr><td>Vidya Mandir Senior Secondary School,
        ↵ Chennai</td><td>12th Grade, Computer Science
        ↵ Group</td><td>94.4 %</td></tr>
        <tr><td>Vidya Mandir Senior Secondary School,
        ↵ Chennai</td><td>10th Grade</td><td>8.828</td></tr>
    </table>

    <a name = "ExtraCurricular"></a>
    <h4>Extra Curricular</h4>
    <ul>
        <li>Volunteering with Chennai Volunteers to teach spoken
        ↵ English classes for Tamil medium students.</li>
        <li>Captained the school cricket team</li>
        <li>Represented the college cricket team</li>
    </ul>

    <a name = "Awards"></a>
    <h4>Awards</h4>
    <ul>
        <li>Won the 2nd best project in Computer Science in
        ↵ 12th grade.</li>
        <li>Stood school 3rd in Chemistry in
        ↵ 12th grade.</li>
    </ul>

    <a name = "Contact"></a>

```

```

<h4>Contact</h4>
<form method="post" action="#">
    <label for = "title">Title</label><br>
        <input type = "text" name = "title" id = "title"
            ↵ placeholder = "Mr"><br>
    <label for = "fname">First Name</label><br>
        <input type = "text" name = "firstname" id = "fname"
            ↵ placeholder = "John"><br>
    <label for = "lname">Last Name</label><br>
        <input type = "text" name = "lastname" id = "lname"
            ↵ placeholder = "Doe"><br>
    <label for="mobile">Phone Number</label><br>
        <input type = "mobile" id = "mobile" name = "mobile"
            ↵ placeholder = "9876543210"><br>
    <label for = "email">Email</label><br>
        <input type = "text" name = "email" id = "email"
            ↵ placeholder = "johndoe@xyz.com"><br>
    <label for = "message">Message</label><br>
        <textarea name = "message" id="message" placeholder =
            ↵ "Write your message..." style="margin: 0px; width:
            ↵ 168px; height: 91px;"></textarea><br><br>
        <input type = "submit" value = "Send Message">
</form>

<footer>
    <div class = "transition">M Badri Naryanan</div><br>
    <svg width="100" height="100">
        <circle cx="50" cy="50" r="40" stroke="green"
            ↵ stroke-width="4" fill="red" />
        <a href="https://mbadrinarayanan.github.io/" target
            ↵ ="_blank"><text x="18" y="53">Click
            ↵ Here</text></a>
    </svg>
    <p class = "border">Web Page created for Web Programming Lab
        ↵ in the VI Semester.</p>
    <canvas id="Canvas" width="200" height="100" style="border:1px
        ↵ solid #d3d3d3;">Your browser does not support the HTML
        ↵ canvas tag.</canvas>
    <script>
        var c = document.getElementById("Canvas");
        var ctx = c.getContext("2d");

        var grd = ctx.createRadialGradient(75,50,5,90,60,100);
        grd.addColorStop(0,"red");
        grd.addColorStop(1,"white");

        ctx.fillStyle = grd;
        ctx.fillRect(10,10,150,80);
    </script>
</footer>

</body>
</html>

```

---

---

## CSS Code

```
body
{
    background-color: linen;
}
ul
{
    background-color: lightblue;
    width: 20%;
    padding: 25px;
}
.header
{
    background-color: rgb(255, 253, 208);
    padding: 20px;
    text-align: center;
}
#animated_div{
    width:70px;
    height:47px;
    background: #92B901;
    color: white;
    position: relative;
    font-weight:bold;
    font-size:20px;
    padding:10px;
    animation:animated_div 5s 1;
    -moz-animation:animated_div 5s 1;
    -webkit-animation:animated_div 5s 1;
    -o-animation:animated_div 5s 1;
    border-radius:5px;
    -webkit-border-radius:5px;
}

@keyframes animated_div
{
0% {transform: rotate(0deg);left:0px;}
25% {transform: rotate(20deg);left:0px;}
50% {transform: rotate(0deg);left:500px;}
55% {transform: rotate(0deg);left:500px;}
70% {transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {transform: rotate(-360deg);left:0px;}
}

@-webkit-keyframes animated_div
{
0% {-webkit-transform: rotate(0deg);left:0px;}
25% {-webkit-transform: rotate(20deg);left:0px;}
50% {-webkit-transform: rotate(0deg);left:500px;}
55% {-webkit-transform: rotate(0deg);left:500px;}
70% {-webkit-transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {-webkit-transform: rotate(-360deg);left:0px;}
}

@-moz-keyframes animated_div
{
0% {-moz-transform: rotate(0deg);left:0px;}
25% {-moz-transform: rotate(20deg);left:0px;}
```

```

50% {-moz-transform: rotate(0deg);left:500px;}
55% {-moz-transform: rotate(0deg);left:500px;}
70% {-moz-transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {-moz-transform: rotate(-360deg);left:0px;}
}

@-o-keyframes animated_div
{
0% {transform: rotate(0deg);left:0px;}
25% {transform: rotate(20deg);left:0px;}
50% {transform: rotate(0deg);left:500px;}
55% {transform: rotate(0deg);left:500px;}
70% {transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {transform: rotate(-360deg);left:0px;}
}

```

---

## Output

Figure 11: **HTML5 Output Pic1**

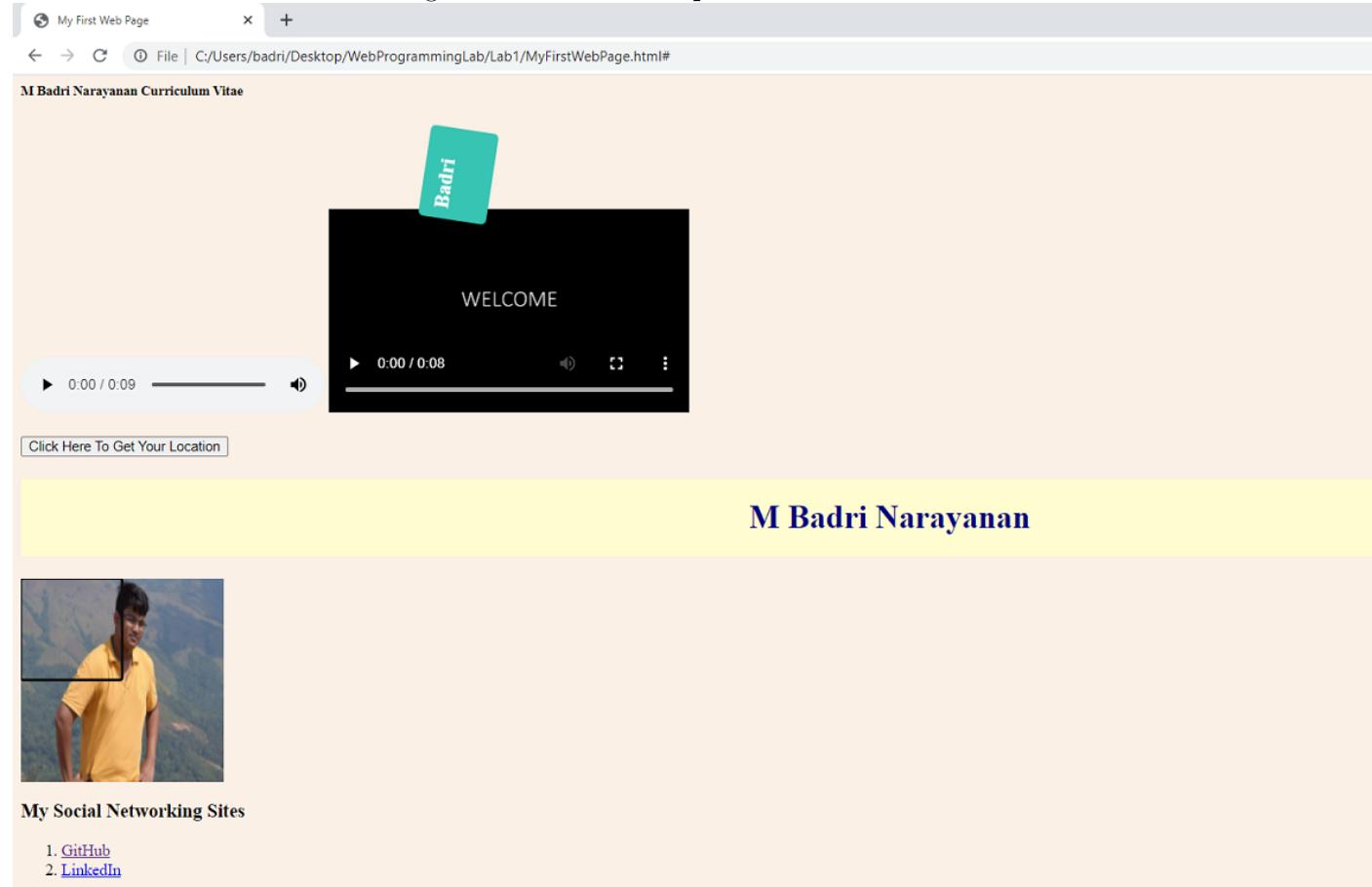


Figure 12: HTML5 Output Pic2

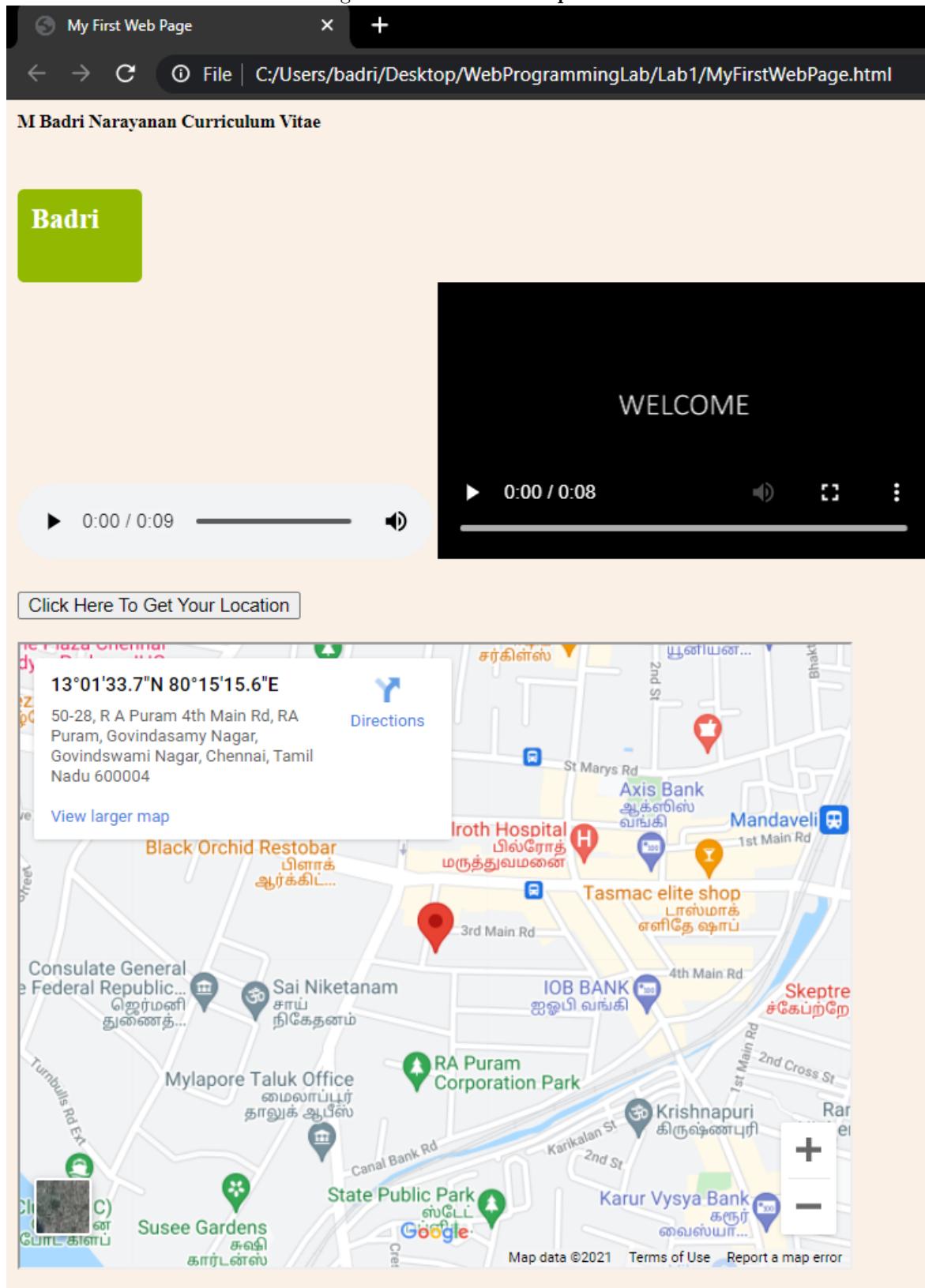


Figure 13: HTML5 Output Pic3

The screenshot shows a web browser window titled "My First Web Page". The address bar displays the file path: "C:/Users/badri/Desktop/WebProgrammingLab/Lab1/MyFirstWebPage.html#". The page content is a resume-style document.

**Header:**

M BADRI  
NARAYANAN

Machine Learning | Deep Learning | Natural  
Language Processing | Computer Vision | Data  
Science

**Summary:**

I am currently pursuing my bachelors in Information Technology from SSN College of Engineering, Chennai. I am interested in the fields of Machine Learning , Deep Learning, Natural Language Processing in the aforementioned fields and develop real world solutions. I am also an avid sports fan and my hobbies include playing cricket, listening to music, watching movies and reading books.

**Navigation:**

[My Education Details](#)  
[Extra Curricular](#)  
[Awards](#)  
[Contact](#)

**My Education Details:**

College / School	Grade	Marks Obtained
SSN College of Engineering, Chennai	BTech Information Technology	Current GPA : 8.8 (IV Semester)
Vidya Mandir Senior Secondary School, Chennai	12 <sup>th</sup> Grade, Computer Science Group	94.4 %
Vidya Mandir Senior Secondary School, Chennai	10 <sup>th</sup> Grade	8.8

Figure 14: HTML5 Output Pic4

The screenshot shows a web browser window titled "My First Web Page". The address bar displays the file path: "C:/Users/badri/Desktop/WebProgrammingLab/Lab1/MyFirstWebPage.html#". The page content is a resume-style document.

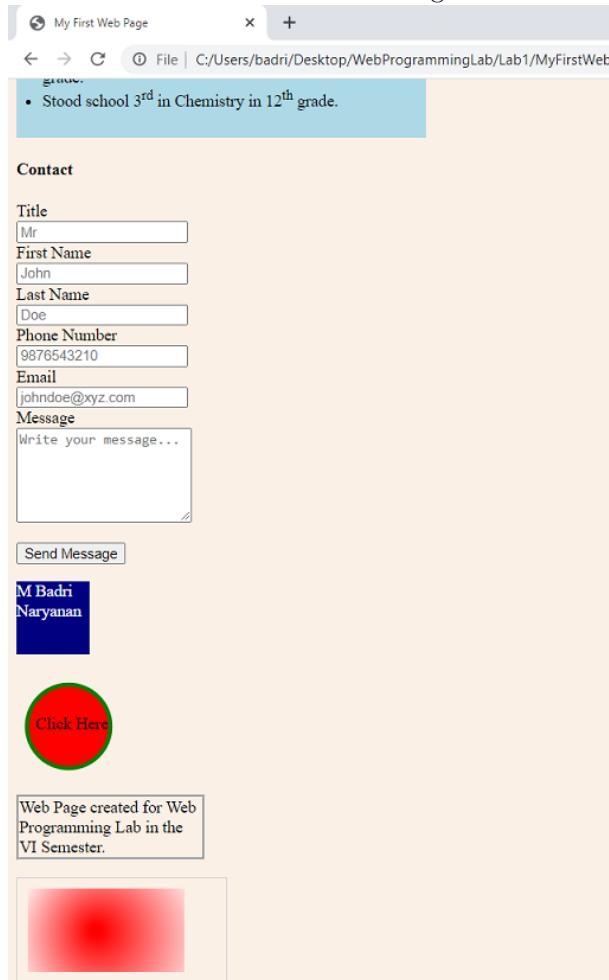
**Section: Extra Curricular**

- Volunteering with Chennai Volunteers to teach spoken English classes for Tamil medium students.
- Captained the school cricket team
- Represented the college cricket team

**Section: Awards**

- Won the 2<sup>nd</sup> best project in Computer Science in 12<sup>th</sup> grade.
- Stood school 3<sup>rd</sup> in Chemistry in 12<sup>th</sup> grade.

Figure 15: HTML5 Output Pic5



---

<b>Experiment Name:</b> CSS3
<b>Exercise Number:</b> 1D
<b>Date:</b> February 23, 2021

---

Borders, Text effects, Animation, and Transitions.

---

## HTML Code

```
<!DOCTYPE>
<html lang = "en">
<head>

    <meta charset="UTF-8">
    <meta name="description" content="Portfolio Web Page">
    <meta name="keywords" content="HTML5, CSS3, JavaScript">
    <meta name="author" content="M Badri Narayanan">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <title>My First Web Page</title>
    <link rel="icon" type="image/x-icon" href="images/favicon.ico" />
    <link rel="stylesheet" href="style.css">

<style>
    p.static
    {
        position: static;
        text-align: center;
        color: red;
    }
    p.border
    {
        width: 11em;
        border-style: groove;
        word-wrap: break-word;
    }
    div.transition
    {
        width: 70px;
        height: 70px;
        background: navy;
        color: white;
        transition: width 2s, height 4s;
    }
    div.transition:hover
    {
        width: 100px;
        height: 100px;
    }
    canvas
    {
        display : inline-block;
    }
</style>
<body>
    <header>
        <h5>M Badri Narayanan Curriculum Vitae</h5><br>
```

```

<div id ="animated_div">Badri</div>
<audio controls>
    <source src="Audio.mp3" type="audio/mpeg">
    Your browser does not support the audio element.
</audio>
<video height = 200 video = 200 controls>
    <source src="Video.mp4" type="video/mp4">
    Your browser does not support the video tag.
</video>
<br>
<br>
<button onclick = "getLocation()">Click Here To Get Your
    ↵ Location</button>
<p id = "location"></p>
<script>
    var x = document.getElementById("location");

        function getLocation()
        {
            if (navigator.geolocation)
            {
                navigator.geolocation.
                    getCurrentPosition(showPosition);
            }
            else
            {
                x.innerHTML = "Geolocation is not
                    ↵ supported by this browser.";
            }
        }
        function showPosition(position)
        {
            const name=<iframe
                ↵ src='http://maps.google.com/maps?q=';
            const name2="&z=16&output=embed' height='450'
                ↵ width='600'>";
            x.innerHTML=
                ↵ name+position.coords.latitude+', '+
                    position.coords.longitude+name2;
        }
    </script>
</header>

<h1 class = "header" style="color:navy;">M Badri Narayanan</h1>

<img src = "Profile.png" alt = "My Profile Picture" usemap="#profile"
    ↵ height = "200" width = "200"></img><br>

<map name="profile">
    <area shape = "rect" coords="0,0,100,100" alt = "My GitHub
        ↵ Profile" href="https://github.com/MBadriNarayanan"
        ↵ target="_blank">
    <area shape = "rect" coords="100,100,200,200" alt = "My
        ↵ LinkedIn Profile"
        ↵ href="https://www.linkedin.com/in/mbadrinarayanan"
        ↵ target="_blank">
</map>

<h3>My Social Networking Sites</h3>
    <ol>

```

```

        <li><a href="https://github.com/MBadriNarayanan"
        ↵ target="_blank">GitHub</span></a></li>
        <li><a href="https://www.linkedin.com/in/mbadrinarayanan"
        ↵ target="_blank">LinkedIn</a></li>
    </ol>

    <iframe src="https://mbadrinarayanan.github.io/" width="400"
    ↵ height="280" title="My existing portfolio website"></iframe>

    <h3>Summary</h3>

    <p class = "static">I am currently pursuing my bachelors in
    ↵ Information Technology from SSN College of Engineering, Chennai. I
    ↵ am interested in the fields of Machine Learning , Deep Learning,
    ↵ Natural Language Processing, Computer Vision and Data Science.I
    ↵ would like to work in the aforementioned fields and develop real
    ↵ world solutions. I am also an avid sports fan and my hobbies
    ↵ include playing cricket, listening to music, watching movies and
    ↵ reading books.</p>

    <a href = "#EducationDetails">My Education Details</a><br>
    <a href = "#ExtraCurricular">Extra Curricular</a><br>
    <a href = "#Awards">Awards</a><br>
    <a href = "#Contact">Contact</a>

    <a name = "EducationDetails"></a>
    <h4>My Education Details</h4>
    <table border="1" align="left" width="40%">
        <tr><td>College / School</td><td>Grade</td><td>Marks
        ↵ Obtained</td></tr>
        <tr><td>SSN College of Engineering, Chennai</td><td>BTech
        ↵ Information Technology</td><td>Current GPA : 8.828 (V
        ↵ Semester)</td></tr>
        <tr><td>Vidya Mandir Senior Secondary School,
        ↵ Chennai</td><td>12th Grade, Computer Science
        ↵ Group</td><td>94.4 %</td></tr>
        <tr><td>Vidya Mandir Senior Secondary School,
        ↵ Chennai</td><td>10th Grade</td><td>8.828</td></tr>
    </table>

    <a name = "ExtraCurricular"></a>
    <h4>Extra Curricular</h4>
    <ul>
        <li>Volunteering with Chennai Volunteers to teach spoken
        ↵ English classes for Tamil medium students.</li>
        <li>Captained the school cricket team</li>
        <li>Represented the college cricket team</li>
    </ul>

    <a name = "Awards"></a>
    <h4>Awards</h4>
    <ul>
        <li>Won the 2nd best project in Computer Science in
        ↵ 12th grade.</li>
        <li>Stood school 3rd in Chemistry in
        ↵ 12th grade.</li>
    </ul>

    <a name = "Contact"></a>

```

```

<h4>Contact</h4>
<form method="post" action="#">
    <label for = "title">Title</label><br>
        <input type = "text" name = "title" id = "title"
            ↵ placeholder = "Mr"><br>
    <label for = "fname">First Name</label><br>
        <input type = "text" name = "firstname" id = "fname"
            ↵ placeholder = "John"><br>
    <label for = "lname">Last Name</label><br>
        <input type = "text" name = "lastname" id = "lname"
            ↵ placeholder = "Doe"><br>
    <label for="mobile">Phone Number</label><br>
        <input type = "mobile" id = "mobile" name = "mobile"
            ↵ placeholder = "9876543210"><br>
    <label for = "email">Email</label><br>
        <input type = "text" name = "email" id = "email"
            ↵ placeholder = "johndoe@xyz.com"><br>
    <label for = "message">Message</label><br>
        <textarea name = "message" id="message" placeholder =
            ↵ "Write your message..." style="margin: 0px; width:
            ↵ 168px; height: 91px;"></textarea><br><br>
        <input type = "submit" value = "Send Message">
</form>

<footer>
    <div class = "transition">M Badri Naryanan</div><br>
    <svg width="100" height="100">
        <circle cx="50" cy="50" r="40" stroke="green"
            ↵ stroke-width="4" fill="red" />
        <a href="https://mbadrinarayanan.github.io/" target
            ↵ ="_blank"><text x="18" y="53">Click
            ↵ Here</text></a>
    </svg>
    <p class = "border">Web Page created for Web Programming Lab
        ↵ in the VI Semester.</p>
    <canvas id="Canvas" width="200" height="100" style="border:1px
        ↵ solid #d3d3d3;">Your browser does not support the HTML
        ↵ canvas tag.</canvas>
    <script>
        var c = document.getElementById("Canvas");
        var ctx = c.getContext("2d");

        var grd = ctx.createRadialGradient(75,50,5,90,60,100);
        grd.addColorStop(0,"red");
        grd.addColorStop(1,"white");

        ctx.fillStyle = grd;
        ctx.fillRect(10,10,150,80);
    </script>
</footer>

</body>
</html>

```

---

---

## CSS Code

```
body
{
    background-color: linen;
}
ul
{
    background-color: lightblue;
    width: 20%;
    padding: 25px;
}
.header
{
    background-color: rgb(255, 253, 208);
    padding: 20px;
    text-align: center;
}
#animated_div{
    width:70px;
    height:47px;
    background: #92B901;
    color: white;
    position: relative;
    font-weight:bold;
    font-size:20px;
    padding:10px;
    animation:animated_div 5s 1;
    -moz-animation:animated_div 5s 1;
    -webkit-animation:animated_div 5s 1;
    -o-animation:animated_div 5s 1;
    border-radius:5px;
    -webkit-border-radius:5px;
}

@keyframes animated_div
{
0% {transform: rotate(0deg);left:0px;}
25% {transform: rotate(20deg);left:0px;}
50% {transform: rotate(0deg);left:500px;}
55% {transform: rotate(0deg);left:500px;}
70% {transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {transform: rotate(-360deg);left:0px;}
}

@-webkit-keyframes animated_div
{
0% {-webkit-transform: rotate(0deg);left:0px;}
25% {-webkit-transform: rotate(20deg);left:0px;}
50% {-webkit-transform: rotate(0deg);left:500px;}
55% {-webkit-transform: rotate(0deg);left:500px;}
70% {-webkit-transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {-webkit-transform: rotate(-360deg);left:0px;}
}

@-moz-keyframes animated_div
{
0% {-moz-transform: rotate(0deg);left:0px;}
25% {-moz-transform: rotate(20deg);left:0px;}
```

```

50% {-moz-transform: rotate(0deg);left:500px;}
55% {-moz-transform: rotate(0deg);left:500px;}
70% {-moz-transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {-moz-transform: rotate(-360deg);left:0px;}
}

@-o-keyframes animated_div
{
0% {transform: rotate(0deg);left:0px;}
25% {transform: rotate(20deg);left:0px;}
50% {transform: rotate(0deg);left:500px;}
55% {transform: rotate(0deg);left:500px;}
70% {transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {transform: rotate(-360deg);left:0px;}
}

```

---

## Output

Figure 16: CSS3 Output Pic1

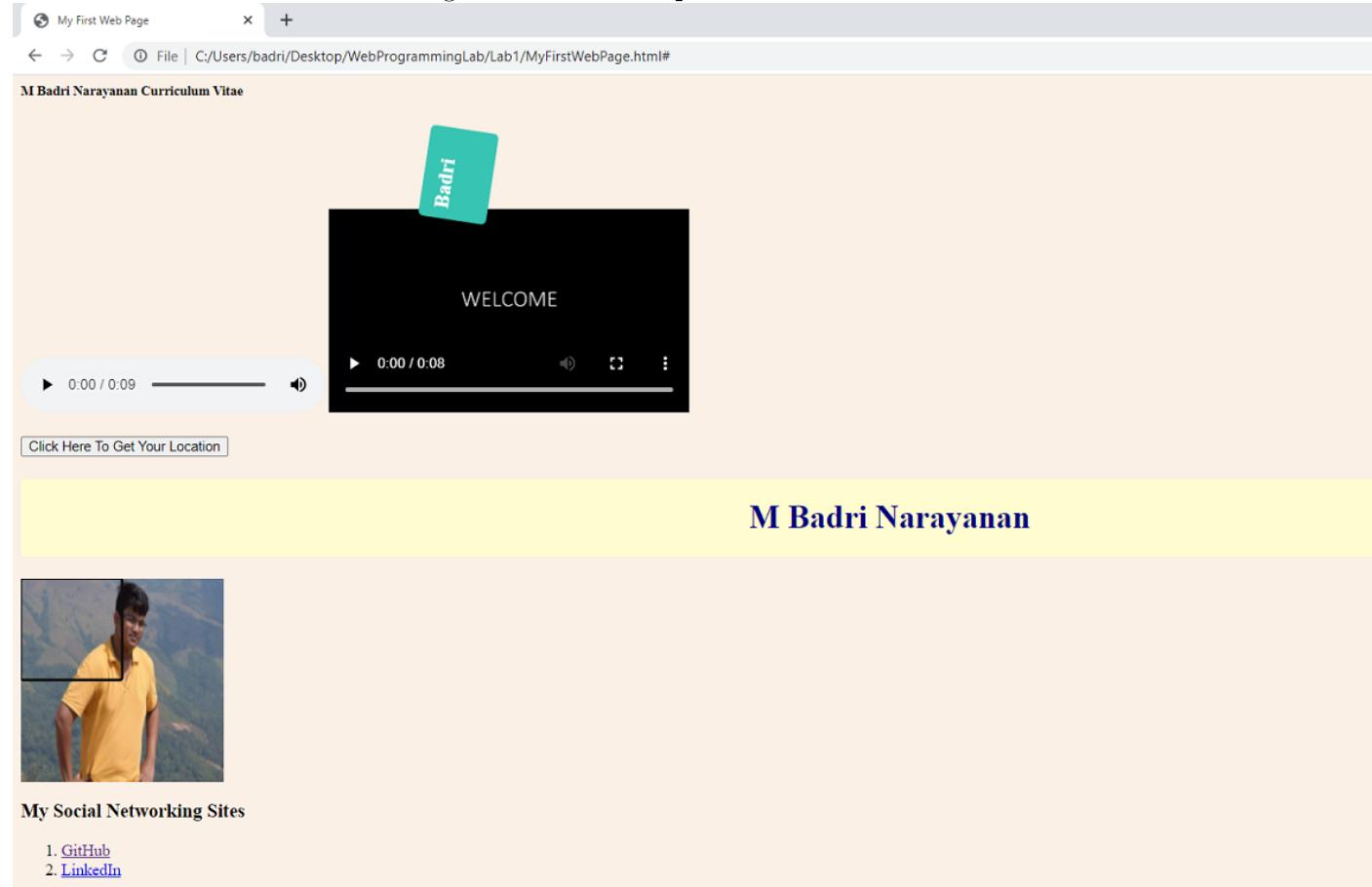


Figure 17: CSS3 Output Pic2

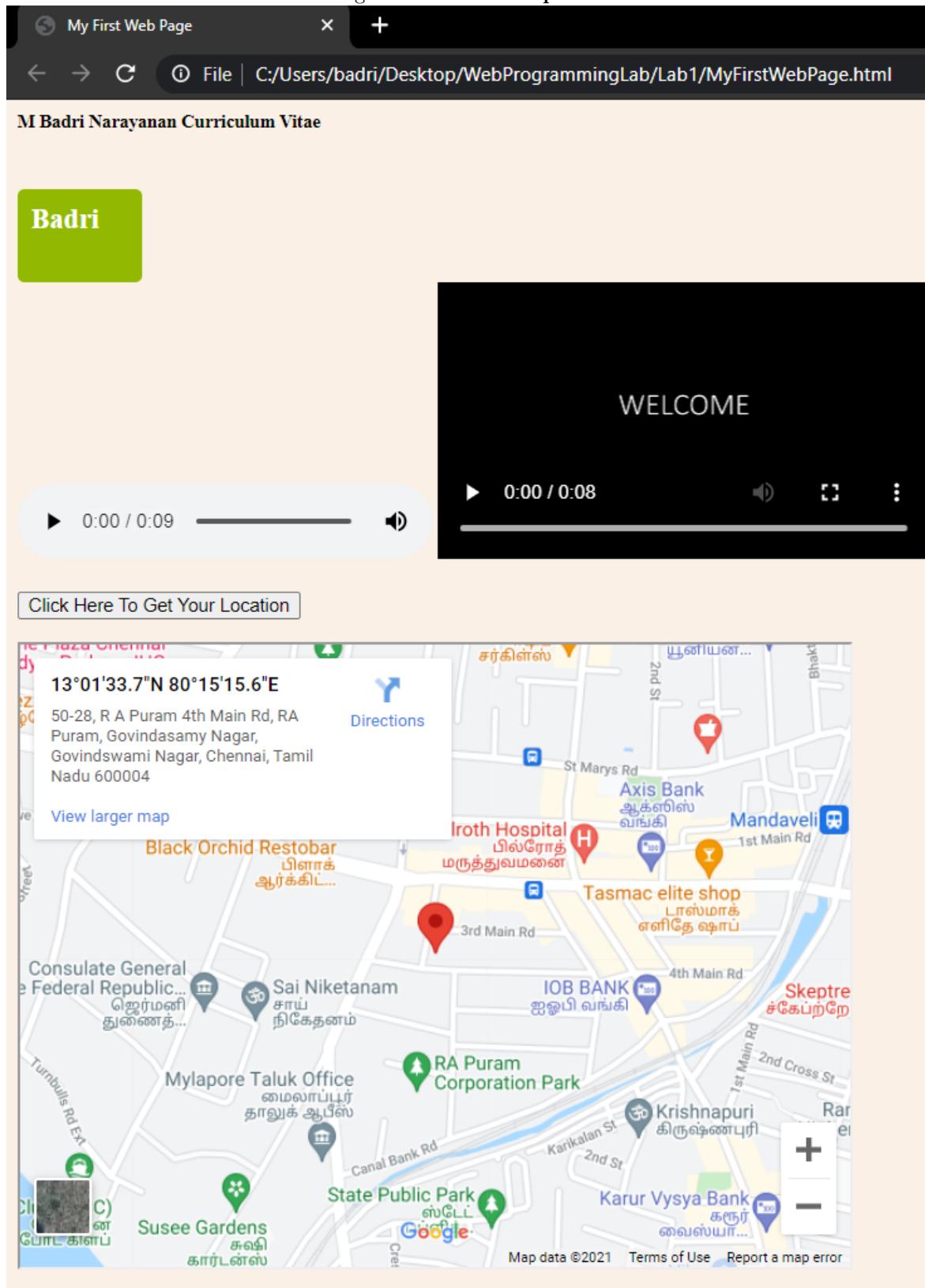


Figure 18: CSS3 Output Pic3

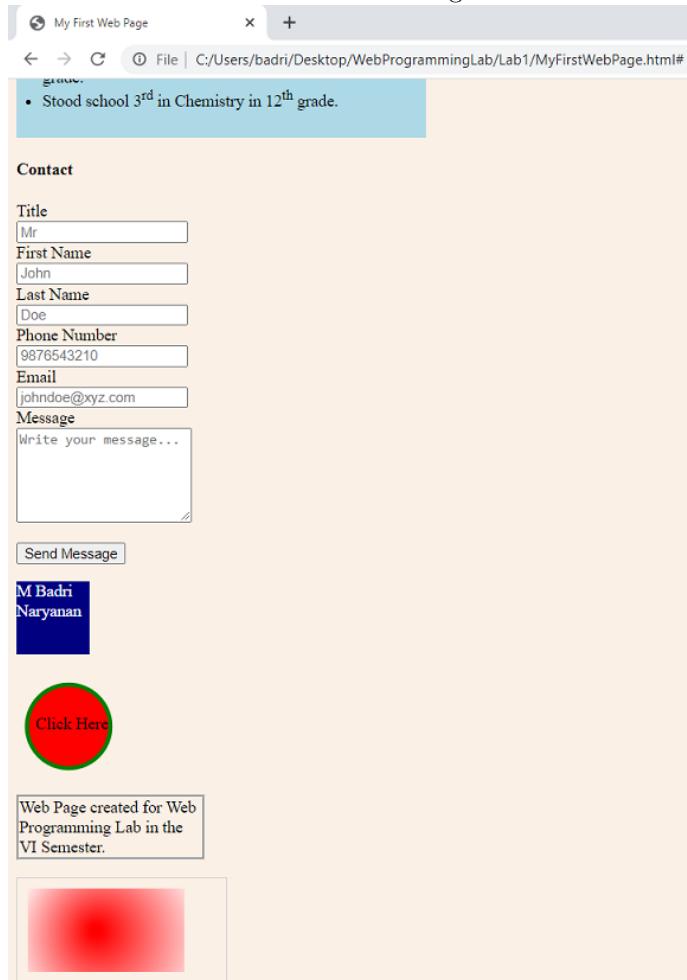
The screenshot shows a web browser window titled "My First Web Page". The address bar displays the file path: C:/Users/badri/Desktop/WebProgrammingLab/Lab1/MyFirstWebPage.html#. The main content area features a dark header with the name "M BADRI NARAYANAN" in large white letters, followed by a subtitle "Machine Learning | Deep Learning | Natural Language Processing | Computer Vision | Data Science". A "MENU" button is located in the top right corner of the header. Below the header, there is a "Summary" section containing a red paragraph about the user's education and interests. Underneath the summary, there are links for "My Education Details", "Extra Curricular", "Awards", and "Contact". At the bottom, there is a "My Education Details" section with a table showing academic records from SSN College of Engineering and Vidya Mandir Senior Secondary School.

College / School	Grade	Marks Obtained
SSN College of Engineering, Chennai	BTech Information Technology	Current GPA : 8.8 (IV Semester)
Vidya Mandir Senior Secondary School, Chennai	12 <sup>th</sup> Grade, Computer Science Group	94.4 %
Vidya Mandir Senior Secondary School, Chennai	10 <sup>th</sup> Grade	8.8

Figure 19: CSS3 Output Pic4

The screenshot shows a web browser window titled "My First Web Page". The address bar displays the file path: C:/Users/badri/Desktop/WebProgrammingLab/Lab1/MyFirstWebPage.html#. The main content area features a "Extra Curricular" section with a blue background containing a bulleted list: "Volunteering with Chennai Volunteers to teach spoken English classes for Tamil medium students.", "Captained the school cricket team", and "Represented the college cricket team". Below this is an "Awards" section with a blue background containing another bulleted list: "Won the 2<sup>nd</sup> best project in Computer Science in 12<sup>th</sup> grade.", and "Stood school 3<sup>rd</sup> in Chemistry in 12<sup>th</sup> grade."

Figure 20: CSS3 Output Pic5



---

## Result

A website has been created successfully, using different tags in HTML and different selectors and features in CSS.

---

---

## HTML Form Validation and DOM Manipulation

<b>Name:</b>	M Badri Narayanan
<b>Reg No:</b>	185002018
<b>Semester:</b>	VI
<b>Exercise Number:</b>	2
<b>Date:</b>	March 2, 2021

---

### Aim

To validate a user created form using HTML & Regular Expression and also perform DOM Manipulation.

---

### Procedure

- An HTML form is used to collect user input.
- The HTML `<form>` element is used to create an HTML form for user input.
- The `<form>` element is a container for different types of input elements, such as
  - Text Fields
  - Check Boxes
  - Radio buttons
  - Submit Buttons
- Different form elements
  - One of the most used form element is the `<input>` element.
  - The `<label>` element defines a label for several form elements.
  - The `<select>` element defines a drop-down list.
  - The `<textarea>` element defines a multi-line input field.
  - The `<button>` element defines a clickable button.
  - The `<fieldset>` element is used to group related data in a form.
  - The `<legend>` element defines a caption for the `<fieldset>` element.
  - The `<datalist>` element specifies a list of pre-defined options for an `<input>` element.
  - Users will see a drop-down list of the pre-defined options as they input data.
  - The `<output>` element represents the result of a calculation.
- Different input attributes
  - The input **value** attribute specifies an initial value for an input field.
  - The input **pattern** attribute specifies a regular expression that the input field's value is checked against, when the form is submitted.
  - The input **placeholder** attribute specifies a short hint that describes the expected value of an input field.
  - The input **required** attribute specifies that an input field must be filled out before submitting the form.
  - The input **readonly** attribute specifies that an input field is read-only.

- The input **disabled** attribute specifies that an input field should be disabled.
  - The input **size** attribute specifies the visible width, in characters, of an input field.
  - The input **min** and **max** attributes specify the minimum and maximum values for an input field.
  - The input **multiple** attribute specifies that the user is allowed to enter more than one value in an input field.
- When a web page is loaded, the browser creates a **Document Object Model** of the page. The **HTML DOM model** is constructed as a tree of Objects.
  - To access an element We find the id of an element by using the **getElementById** method.
  - The **innerHTML** property is useful for getting or replacing the content of HTML elements.
- 

## Tags

```

<input>
<label>
<select>
<textarea>
<button>
<fieldset>
<legend>
<datalist>
<output>
<option>
<optgroup>

<input type="button">
<input type="checkbox">
<input type="date">
<input type="email">
<input type="image">
<input type="number">
<input type="password">
<input type="submit">
<input type="tel">
<input type="text">

<form method="post" action="#">
    <label for = "title">Title</label><br>
        <input type = "text" name = "title" id = "title" placeholder = "Mr"
            ↵ pattern = "^[a-zA-Z\s]*$" required><br>
    <label for = "fname">First Name</label><br>
        <input type = "text" name = "firstname" id = "fname" placeholder =
            ↵ "John" pattern = "^[a-zA-Z\s]*$" required><br>
    <label for = "lname">Last Name</label><br>
        <input type = "text" name = "lastname" id = "lname" placeholder =
            ↵ "Doe" pattern = "^[a-zA-Z\s]*$" required><br>
    <label for="mobile">Phone Number</label><br>
        <input type = "mobile" id = "mobile" name = "mobile"
            ↵ placeholder = "9876543210" pattern="[0-9]{10}"
            ↵ required><br>
    <label for = "email">Email</label><br>
        <input type = "text" name = "email" id = "email" placeholder =
            ↵ "johndoe@xyz.com" pattern =
            ↵ "[a-z0-9._%+-]+@[a-z0-9.-]+\.[a-z]{2,}$$" required><br>
    <label for = "message">Message</label><br>

```

```

        <textarea name = "message" id="message" placeholder = "Write your
        ↵ message..." style="margin: 0px; width: 168px; height: 91px;
        ↵ required></textarea><br><br>
    <input type = "submit" value = "Send Message">
</form>

<script>

    document.getElementById(if)
    document.getElementsByTagName(name)
    document.getElementsByClassName(name)

    element.innerHTML = "New Content"
    element.attribute = "New Value"
    element.style.property = "New Style"
    element.setAttribute(attribute, value)

    document.createElement(element)
    document.removeChild(element)
    document.appendChild(element)
    document.replaceChild(new, old)
    document.write(text)

</script>

```

---

**Experiment Name:** HTML Form Validation

**Exercise Number:** 2A

**Date:** March 2, 2021

Validating the form created in the previous exercise using HTML and Regular Expression.

---

## HTML Code

```

<!DOCTYPE>
<html lang = "en">
<head>

    <meta charset="UTF-8">
    <meta name="description" content="Portfolio Web Page">
    <meta name="keywords" content="HTML5, CSS3, JavaScript">
    <meta name="author" content="M Badri Narayanan">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <title>My Second Web Page</title>
    <link rel="icon" type="image/x-icon" href="images/favicon.ico" />
    <link rel="stylesheet" href="style.css">

<style>
    p.static
    {
        position: static;
        text-align: center;
        color: red;
    }
    p.border
    {
        width: 11em;

```

```

        border-style: groove;
        word-wrap: break-word;
    }
    div.transition
    {
        width: 70px;
        height: 70px;
        background: navy;
        color: white;
        transition: width 2s, height 4s;
    }
    div.transition:hover
    {
        width: 100px;
        height: 100px;
    }
    canvas
    {
        display : inline-block;
    }

```

</style>

<body>

```

        <header>
            <h5>M Badri Narayanan Curriculum Vitae</h5><br>
            <div id ="animated_div">Badri</div>
            <audio controls>
                <source src="Audio.mp3" type="audio/mpeg">
                Your browser does not support the audio element.
            </audio>
            <video height = 200 video = 200 controls>
                <source src="Video.mp4" type="video/mp4">
                Your browser does not support the video tag.
            </video>
            <br>
            <br>
            <button onclick = "getLocation()">Click Here To Get Your
            ↪ Location</button>
            <p id = "location"></p>
            <script>
                var x = document.getElementById("location");

                function getLocation()
                {
                    if (navigator.geolocation)
                    {
                        navigator.geolocation.
                            getCurrentPosition(showPosition);
                    }
                    else
                    {
                        x.innerHTML = "Geolocation is not
                        ↪ supported by this browser.";
                    }
                }
                function showPosition(position)
                {
                    const name=<iframe
                    ↪ src='http://maps.google.com/maps?q=';
                    const name2="&z=16&output=embed' height='450'
                    ↪ width='600'>";
                    x.innerHTML= name+position.coords.latitude+', '
                }
            
```

```

                +position.coords.longitude+name2;
            }
        </script>
    </header>

    <h1 class = "header" style="color:navy;">M Badri Narayanan</h1>

    <img src = "Profile.png" alt = "My Profile Picture" usemap="#profile"
    ↵ height = "200" width = "200"></img><br>

    <map name="profile">
        <area shape = "rect" coords="0,0,100,100" alt = "My GitHub
        ↵ Profile" href="https://github.com/MBadriNarayanan"
        ↵ target="_blank">
        <area shape = "rect" coords="100,100,200,200" alt = "My
        ↵ LinkedIn Profile"
        ↵ href="https://www.linkedin.com/in/mbadrinarayanan"
        ↵ target="_blank">
    </map>

    <h3>My Social Networking Sites</h3>
    <ol>
        <li><a href="https://github.com/MBadriNarayanan"
        ↵ target="_blank">GitHub</span></a></li>
        <li><a href="https://www.linkedin.com/in/mbadrinarayanan"
        ↵ target="_blank">LinkedIn</a></li>
    </ol>

    <iframe src="https://mbadrinarayanan.github.io/" width="400"
    ↵ height="280" title="My existing portfolio website"></iframe>

    <h3>Summary</h3>

    <p class = "static">I am currently pursuing my bachelors in
    ↵ Information Technology from SSN College of Engineering, Chennai. I
    ↵ am interested in the fields of Machine Learning , Deep Learning,
    ↵ Natural Language Processing, Computer Vision and Data Science.I
    ↵ would like to work in the aforementioned fields and develop real
    ↵ world solutions. I am also an avid sports fan and my hobbies
    ↵ include playing cricket, listening to music, watching movies and
    ↵ reading books.</p>

    <a href = "#EducationDetails">My Education Details</a><br>
    <a href = "#ExtraCurricular">Extra Curricular</a><br>
    <a href = "#Awards">Awards</a><br>
    <a href = "#Contact">Contact</a>

    <a name = "EducationDetails"></a>
    <h4>My Education Details</h4>
    <table border="1" align="left" width="40%">
        <tr><td>College / School</td><td>Grade</td><td>Marks
        ↵ Obtained</td></tr>
        <tr><td>SSN College of Engineering, Chennai</td><td>BTech
        ↵ Information Technology</td><td>Current GPA : 8.828 (V
        ↵ Semester)</td></tr>
        <tr><td>Vidya Mandir Senior Secondary School,
        ↵ Chennai</td><td>12th</sup> Grade, Computer Science
        ↵ Group</td><td>94.4 %</td></tr>

```

```

<tr><td>Vidya Mandir Senior Secondary School,
    ↵  Chennai</td><td>10<sup>th</sup>
    ↵  Grade</td><td>8.8</td></tr>
</table>

<a name = "ExtraCurricular"></a>
<h4>Extra Curricular</h4>
<ul>
    <li>Volunteering with Chennai Volunteers to teach spoken
        ↵ English classes for Tamil medium students.</li>
    <li>Captained the school cricket team</li>
    <li>Represented the college cricket team</li>
</ul>

<a name = "Awards"></a>
<h4>Awards</h4>
<ul>
    <li>Won the 2nd best project in Computer Science in
        ↵ 12th grade.</li>
    <li>Stood school 3rd in Chemistry in
        ↵ 12th grade.</li>
</ul>

<a name = "Contact"></a>
<h4>Contact</h4>
<form method="post" action="#">
    <label for = "title">Title</label><br>
    <input type = "text" name = "title" id = "title"
        ↵ placeholder = "Mr" pattern = "^[a-zA-Z\s]*$"
        ↵ required><br>
    <label for = "fname">First Name</label><br>
    <input type = "text" name = "firstname" id = "fname"
        ↵ placeholder = "John" pattern = "^[a-zA-Z\s]*$"
        ↵ required><br>
    <label for = "lname">Last Name</label><br>
    <input type = "text" name = "lastname" id = "lname"
        ↵ placeholder = "Doe" pattern = "^[a-zA-Z\s]*$"
        ↵ required><br>
    <label for = "mobile">Phone Number</label><br>
    <input type = "mobile" id = "mobile" name = "mobile"
        ↵ placeholder = "9876543210" pattern="[0-9]{10}"
        ↵ required><br>
    <label for = "email">Email</label><br>
    <input type = "text" name = "email" id = "email"
        ↵ placeholder = "john.doe@xyz.com" pattern =
        ↵ "[a-z0-9._%+-]+@[a-z0-9.-]+\.[a-z]{2,}$"
        ↵ required><br>
    <label for = "message">Message</label><br>
    <textarea name = "message" id="message" placeholder =
        ↵ "Write your message..." style="margin: 0px; width:
        ↵ 168px; height: 91px;" required></textarea><br><br>
    <input type = "submit" value = "Send Message">
</form>

<footer>
    <div class = "transition">M Badri Naryanan</div><br>
    <svg width="100" height="100">
        <circle cx="50" cy="50" r="40" stroke="green"
            ↵ stroke-width="4" fill="red" />

```

```

        <a href="https://mbadrinarayanan.github.io/" target
        ↵   ="_blank"><text x="18" y="53">Click
        ↵   Here</text></a>
    </svg>
    <p class = "border">Web Page created for Web Programming Lab
    ↵   in the VI Semester.</p>
    <canvas id="Canvas" width="200" height="100" style="border:1px
    ↵   solid #d3d3d3;">Your browser does not support the HTML
    ↵   canvas tag.</canvas>
    <br>
    <button onclick = "changedom()">Click Here To Perform DOM
    ↵   Manipulation.</button>
    <p id = "dom">DOM Manipulation.</p>
    <script>
        var x = document.getElementById("dom");

        function changedom()
        {
            x.innerHTML = "Text changed by DOM
            ↵   Manipulation.";
        }
    </script>
    <script>
        var c = document.getElementById("Canvas");
        var ctx = c.getContext("2d");

        var grd = ctx.createRadialGradient(75,50,5,90,60,100);
        grd.addColorStop(0,"red");
        grd.addColorStop(1,"white");

        ctx.fillStyle = grd;
        ctx.fillRect(10,10,150,80);
    </script>
</footer>

</body>
</html>

```

---

## CSS Code

```

body
{
    background-color: linen;
}
ul
{
    background-color: lightblue;
    width: 20%;
    padding: 25px;
}
.header
{
    background-color: rgb(255, 253, 208);
    padding: 20px;
    text-align: center;
}
#animated_div{
    width:70px;

```

```

height:47px;
background: #92B901;
color: white;
position: relative;
font-weight:bold;
font-size:20px;
padding:10px;
animation:animated_div 5s 1;
-moz-animation:animated_div 5s 1;
-webkit-animation:animated_div 5s 1;
-o-animation:animated_div 5s 1;
border-radius:5px;
-webkit-border-radius:5px;
}

@keyframes animated_div
{
0% {transform: rotate(0deg);left:0px;}
25% {transform: rotate(20deg);left:0px;}
50% {transform: rotate(0deg);left:500px;}
55% {transform: rotate(0deg);left:500px;}
70% {transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {transform: rotate(-360deg);left:0px;}
}

@-webkit-keyframes animated_div
{
0% {-webkit-transform: rotate(0deg);left:0px;}
25% {-webkit-transform: rotate(20deg);left:0px;}
50% {-webkit-transform: rotate(0deg);left:500px;}
55% {-webkit-transform: rotate(0deg);left:500px;}
70% {-webkit-transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {-webkit-transform: rotate(-360deg);left:0px;}
}

@-moz-keyframes animated_div
{
0% {-moz-transform: rotate(0deg);left:0px;}
25% {-moz-transform: rotate(20deg);left:0px;}
50% {-moz-transform: rotate(0deg);left:500px;}
55% {-moz-transform: rotate(0deg);left:500px;}
70% {-moz-transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {-moz-transform: rotate(-360deg);left:0px;}
}

@-o-keyframes animated_div
{
0% {transform: rotate(0deg);left:0px;}
25% {transform: rotate(20deg);left:0px;}
50% {transform: rotate(0deg);left:500px;}
55% {transform: rotate(0deg);left:500px;}
70% {transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {transform: rotate(-360deg);left:0px;}
}

```

---

---

## Output

Figure 21: HTML Form Validation Output Pic1

**Contact**

**Title**

**Last Name**  
Doe

**Phone Number**  
9876543210

**Email**  
johndoe@xyz.com

**Message**  
Write your message...

**Send Message**

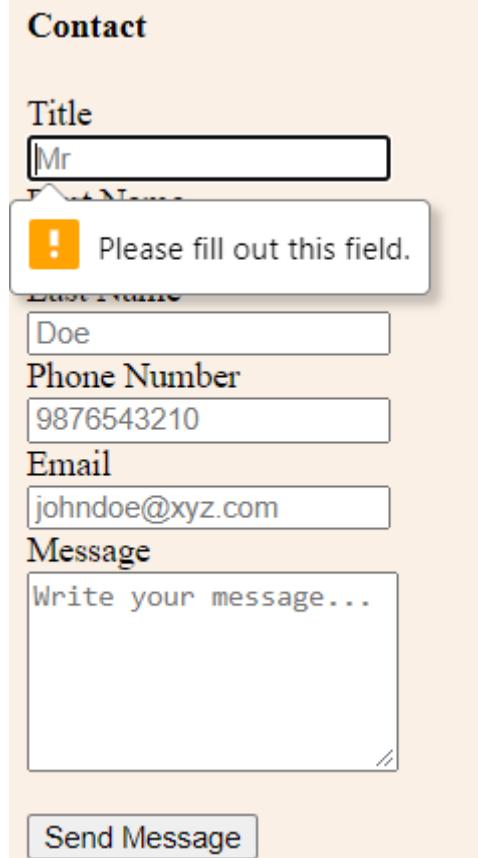
A screenshot of an HTML form titled "Contact". It contains fields for Title, Last Name, Phone Number, Email, and Message. The "Title" field has "Mr" entered. The "Last Name" field has "Doe" entered. The "Phone Number" field has "9876543210" entered. The "Email" field has "johndoe@xyz.com" entered. The "Message" field is empty and contains placeholder text "Write your message...". A validation error message "Please fill out this field." is displayed above the "Last Name" field, accompanied by an exclamation mark icon. The entire form is set against a light brown background.

Figure 22: HTML Form Validation Output Pic2

### Contact

Title

First Name

Please fill out this field.

Phone Number

Email

Message

Figure 23: HTML Form Validation Output Pic3

### Contact

Title

First Name

Last Name

Please fill out this field.

Phone Number

Email

Message

Figure 24: HTML Form Validation Output Pic4

## Contact

Title

Mr

First Name

John

Last Name

Doe

Phone Number

9876543210



Write your message....

Send Message

Figure 25: HTML Form Validation Output Pic5

## Contact

Title

Mr

First Name

John

Last Name

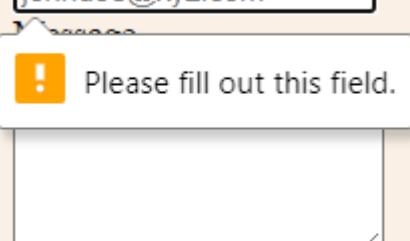
Doe

Phone Number

9876543210

Email

johndoe@xyz.com



Send Message

Figure 26: HTML Form Validation Output Pic6

## Contact

Title

Mr

First Name

John

Last Name

Doe

Phone Number

9876543210

Email

johndoe@xyz.com

Message

Write your message...



Please fill out this field.

Experiment Name: DOM Manipulation

Exercise Number: 2B

Date: March 2, 2021

---

Perform DOM Manipulation on the HTML Document.

---

## HTML Code

```
<!DOCTYPE>
<html lang = "en">
<head>

    <meta charset="UTF-8">
    <meta name="description" content="Portfolio Web Page">
    <meta name="keywords" content="HTML5, CSS3, JavaScript">
    <meta name="author" content="M Badri Narayanan">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <title>My Second Web Page</title>
    <link rel="icon" type="image/x-icon" href="images/favicon.ico" />
    <link rel="stylesheet" href="style.css">

<style>
    p.static
    {
        position: static;
```

```

        text-align: center;
        color: red;
    }
    p.border
    {
        width: 11em;
        border-style: groove;
        word-wrap: break-word;
    }
    div.transition
    {
        width: 70px;
        height: 70px;
        background: navy;
        color: white;
        transition: width 2s, height 4s;
    }
    div.transition:hover
    {
        width: 100px;
        height: 100px;
    }
    canvas
    {
        display : inline-block;
    }

```

</style>

<body>

```

        <header>
            <h5>M Badri Narayanan Curriculum Vitae</h5><br>
            <div id ="animated_div">Badri</div>
            <audio controls>
                <source src="Audio.mp3" type="audio/mpeg">
                Your browser does not support the audio element.
            </audio>
            <video height = 200 video = 200 controls>
                <source src="Video.mp4" type="video/mp4">
                Your browser does not support the video tag.
            </video>
            <br>
            <br>
            <button onclick = "getLocation()">Click Here To Get Your
            ↵ Location</button>
            <p id = "location"></p>
            <script>
                var x = document.getElementById("location");

                function getLocation()
                {
                    if (navigator.geolocation)
                    {
                        navigator.geolocation.
                            getCurrentPosition(showPosition);
                    }
                    else
                    {
                        x.innerHTML = "Geolocation is not
                        ↵ supported by this browser.";
                    }
                }
                function showPosition(position)

```

```

{
    const name=<iframe
        ↵ src='http://maps.google.com/maps?q=';
    const name2=&z=16&output=embed' height='450'
        ↵ width='600'>';
    x.innerHTML= name+position.coords.latitude+','
                    +position.coords.longitude+name2;
}
</script>
</header>

<h1 class = "header" style="color:navy;">M Badri Narayanan</h1>

<img src = "Profile.png" alt = "My Profile Picture" usemap="#profile"
    ↵ height = "200" width = "200"></img><br>

<map name="profile">
    <area shape = "rect" coords="0,0,100,100" alt = "My GitHub
        ↵ Profile" href="https://github.com/MBadriNarayanan"
        ↵ target="_blank">
    <area shape = "rect" coords="100,100,200,200" alt = "My
        ↵ LinkedIn Profile"
        ↵ href="https://www.linkedin.com/in/mbadrinarayanan"
        ↵ target="_blank">
</map>

<h3>My Social Networking Sites</h3>
<ol>
    <li><a href="https://github.com/MBadriNarayanan"
        ↵ target="_blank">GitHub</span></a></li>
    <li><a href="https://www.linkedin.com/in/mbadrinarayanan"
        ↵ target="_blank">LinkedIn</a></li>
</ol>

<iframe src="https://mbadrinarayanan.github.io/" width="400"
    ↵ height="280" title="My existing portfolio website"></iframe>

<h3>Summary</h3>

<p class = "static">I am currently pursuing my bachelors in
    ↵ Information Technology from SSN College of Engineering, Chennai. I
    ↵ am interested in the fields of Machine Learning , Deep Learning,
    ↵ Natural Language Processing, Computer Vision and Data Science.I
    ↵ would like to work in the aforementioned fields and develop real
    ↵ world solutions. I am also an avid sports fan and my hobbies
    ↵ include playing cricket, listening to music, watching movies and
    ↵ reading books.</p>

<a href = "#EducationDetails">My Education Details</a><br>
<a href = "#ExtraCurricular">Extra Curricular</a><br>
<a href = "#Awards">Awards</a><br>
<a href = "#Contact">Contact</a>

<a name = "EducationDetails"></a>
<h4>My Education Details</h4>
<table border="1" align="left" width="40%">
    <tr><td>College / School</td><td>Grade</td><td>Marks
        ↵ Obtained</td></tr>

```

```

<tr><td>SSN College of Engineering, Chennai</td><td>BTech
    ↵  Information Technology</td><td>Current GPA : 8.828 (V
    ↵  Semester)</td></tr>
<tr><td>Vidya Mandir Senior Secondary School,
    ↵  Chennai</td><td>12th</sup> Grade, Computer Science
    ↵  Group</td><td>94.4 %</td></tr>
<tr><td>Vidya Mandir Senior Secondary School,
    ↵  Chennai</td><td>10th</sup> Grade</td>
    ↵  Grade</td></tr>
</table>

<a name = "ExtraCurricular"></a>
<h4>Extra Curricular</h4>
<ul>
    <li>Volunteering with Chennai Volunteers to teach spoken
        ↵  English classes for Tamil medium students.</li>
    <li>Captained the school cricket team</li>
    <li>Represented the college cricket team</li>
</ul>

<a name = "Awards"></a>
<h4>Awards</h4>
<ul>
    <li>Won the 2nd best project in Computer Science in
        ↵  12th grade.</li>
    <li>Stood school 3rd in Chemistry in
        ↵  12th grade.</li>
</ul>

<a name = "Contact"></a>
<h4>Contact</h4>
<form method="post" action="#">
    <label for = "title">Title</label><br>
        <input type = "text" name = "title" id = "title"
            ↵  placeholder = "Mr" pattern = "^[a-zA-Z\s]*$"
            ↵  required><br>
    <label for = "fname">First Name</label><br>
        <input type = "text" name = "firstname" id = "fname"
            ↵  placeholder = "John" pattern = "^[a-zA-Z\s]*$"
            ↵  required><br>
    <label for = "lname">Last Name</label><br>
        <input type = "text" name = "lastname" id = "lname"
            ↵  placeholder = "Doe" pattern = "^[a-zA-Z\s]*$"
            ↵  required><br>
    <label for = "mobile">Phone Number</label><br>
        <input type = "mobile" id = "mobile" name = "mobile"
            ↵  placeholder = "9876543210" pattern = "[0-9]{10}"
            ↵  required><br>
    <label for = "email">Email</label><br>
        <input type = "text" name = "email" id = "email"
            ↵  placeholder = "john.doe@xyz.com" pattern =
            ↵  "[a-z0-9._%+-]+@[a-z0-9.-]+\.[a-z]{2,}\$"
            ↵  required><br>
    <label for = "message">Message</label><br>
        <textarea name = "message" id="message" placeholder =
            ↵  "Write your message..." style="margin: 0px; width:
            ↵  168px; height: 91px;" required></textarea><br><br>
        <input type = "submit" value = "Send Message">
</form>

<footer>
```

```

<div class = "transition">M Badri Naryanan</div><br>
<svg width="100" height="100">
    <circle cx="50" cy="50" r="40" stroke="green"
        ↵ stroke-width="4" fill="red" />
    <a href="https://mbadrinarayanan.github.io/" target
        ↵ ="_blank"><text x="18" y="53">Click
        ↵ Here</text></a>
</svg>
<p class = "border">Web Page created for Web Programming Lab
    ↵ in the VI Semester.</p>
<canvas id="Canvas" width="200" height="100" style="border:1px
    ↵ solid #d3d3d3;">Your browser does not support the HTML
    ↵ canvas tag.</canvas>
<br>
<button onclick = "changedom()">Click Here To Perform DOM
    ↵ Manipulation.</button>
<p id = "dom">DOM Manipulation.</p>
<script>
    var x = document.getElementById("dom");

    function changedom()
    {
        x.innerHTML = "Text changed by DOM
            ↵ Manipulation.";
    }
</script>
<script>
    var c = document.getElementById("Canvas");
    var ctx = c.getContext("2d");

    var grd = ctx.createRadialGradient(75,50,5,90,60,100);
    grd.addColorStop(0,"red");
    grd.addColorStop(1,"white");

    ctx.fillStyle = grd;
    ctx.fillRect(10,10,150,80);
</script>
</footer>

</body>
</html>

```

---

## CSS Code

```

body
{
    background-color: linen;
}
ul
{
    background-color: lightblue;
    width: 20%;
    padding: 25px;
}
.header
{
    background-color: rgb(255, 253, 208);
    padding: 20px;
}

```

```

    text-align: center;
}
#animated_div{
    width:70px;
    height:47px;
    background: #92B901;
    color: white;
    position: relative;
    font-weight:bold;
    font-size:20px;
    padding:10px;
    animation:animated_div 5s 1;
    -moz-animation:animated_div 5s 1;
    -webkit-animation:animated_div 5s 1;
    -o-animation:animated_div 5s 1;
    border-radius:5px;
    -webkit-border-radius:5px;
}
@keyframes animated_div
{
0% {transform: rotate(0deg);left:0px;}
25% {transform: rotate(20deg);left:0px;}
50% {transform: rotate(0deg);left:500px;}
55% {transform: rotate(0deg);left:500px;}
70% {transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {transform: rotate(-360deg);left:0px;}
}

@-webkit-keyframes animated_div
{
0% {-webkit-transform: rotate(0deg);left:0px;}
25% {-webkit-transform: rotate(20deg);left:0px;}
50% {-webkit-transform: rotate(0deg);left:500px;}
55% {-webkit-transform: rotate(0deg);left:500px;}
70% {-webkit-transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {-webkit-transform: rotate(-360deg);left:0px;}
}

@-moz-keyframes animated_div
{
0% {-moz-transform: rotate(0deg);left:0px;}
25% {-moz-transform: rotate(20deg);left:0px;}
50% {-moz-transform: rotate(0deg);left:500px;}
55% {-moz-transform: rotate(0deg);left:500px;}
70% {-moz-transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {-moz-transform: rotate(-360deg);left:0px;}
}

@-o-keyframes animated_div
{
0% {transform: rotate(0deg);left:0px;}
25% {transform: rotate(20deg);left:0px;}
50% {transform: rotate(0deg);left:500px;}
55% {transform: rotate(0deg);left:500px;}
70% {transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {transform: rotate(-360deg);left:0px;}
}

```

---

---

## Output

Figure 27: DOM Manipulation Output Pic1

[Click Here To Perform DOM Manipulation.](#)

DOM Manipulation.

Figure 28: DOM Manipulation Output Pic1

[Click Here To Perform DOM Manipulation.](#)

Text changed by DOM Manipulation.

---

## Result

A form has been created and has been validated using HTML & Regular Expression.DOM Manipulation has also been performed successfully.

---

---

## Angular JS: Simple calculator, Component, Controller, Service and Filters

<b>Name:</b>	M Badri Narayanan
<b>Reg No:</b>	185002018
<b>Semester:</b>	VI
<b>Exercise Number:</b>	3
<b>Date:</b>	March 9, 2021

---

### Aim

To write an Angular program to

- Implement Simple Calculator.
  - Implement Components, Service, and Controllers.
  - Implement search to filter items.
- 

### Procedure for Calculator

- Import the angular script.
  - Get operand 1 and operand 2 as input from the user using input tag.
  - Get the operation to be performed from the user using select tag.
  - The div enclosing the calculator is directed to the respective ng-app and ng-controller.
  - Inside the angular controller, define function result() and using \$scope, get the operation required.
  - Using if statements perform the necessary operation on the operands a and b which are linked by ng-model and return it.
  - Result is invoked in the calculator which will give the required output.
- 

### Procedure for Components, Service and Controllers

- Components can be registered using the .component() method of an AngularJS module (returned by angular.module()).
  - The method takes two arguments
    - The name of the Component (as string).
    - The Component config object.
  - We will display the URL of the HTML file.
  - We will also use the Time service to display the current time.
  - AngularJS applications are controlled by controllers.
  - The ng-controller directive defines the application controller.
  - A controller is a JavaScript Object, created by a standard JavaScript object constructor.
  - AngularJS will invoke the controller with a \$scope object.
-

---

## Procedure for Filters

- We write a script query using Angular JS.
  - To display the different items we Loop through all list items, and hide those who don't match the search query.
- 

<b>Experiment Name:</b>	Simple Calculator Using Angular JS
<b>Exercise Number:</b>	3A
<b>Date:</b>	March 9, 2021

---

## HTML Code

```
<!DOCTYPE html>
<html ng-app>

<head>
  <script data-require="angular.js@1.0.7" data-semver="1.0.7"
  ↵  src="https://ajax.googleapis.com/ajax/libs/angularjs/1.0.7/angular.js"></script>
  <title>Angular JS Calculator</title>
  <link rel="stylesheet" href="style.css"/>
  <script src="script.js"></script>
</head>

<body>
  <h1>Angular JS Calculator</h1>
  <div ng-controller="CalculatorCtrl">
    <table>
      <tr>
        <td>Value 1 :</td>
        <td><input ng-model="a"></td>
      </tr>
      <tr>
        <td>Value 2 :</td>
        <td><input ng-model="b"></td>
      </tr>
      <tr>
        <td>Operator :</td>
        <td>
          <select ng-model="operation">
            <option value="+">+</option>
            <option value="-">-</option>
            <option value="*">*</option>
            <option value="/">/</option>
            <option value="%">%</option>
          </select>
        </td>
      </tr>
    </table>
    <p class="result">Result : {{na()}} {{operation}} {{nb()}} = {{calculate()}}</p>
  </div>
</body>

</html>
```

---

## CSS Code

```
.result
{
    font-size : 20px;
    font-weight: bold;
}

td
{
    font-size: 20px;
}
```

---

## Java Script Code

```
function CalculatorCtrl($scope)
{
    $scope.a = 0;
    $scope.b = 0;
    $scope.operation = '+';

    $scope.na = function()
    {
        return $scope.a - 0;
    }

    $scope.nb = function()
    {
        return $scope.b - 0;
    }

    $scope.calculate = function()
    {
        if($scope.operation == '+')
        {
            return $scope.na() + $scope.nb();
        }
        if($scope.operation == '-')
        {
            return $scope.a - $scope.b;
        }
        if($scope.operation == '*')
        {
            return $scope.a * $scope.b;
        }
        if($scope.operation == '/')
        {
            return $scope.a / $scope.b;
        }
        if($scope.operation == '%')
        {
            return $scope.a % $scope.b;
        }
        return "undef";
    }
}
```

---

## Output

Figure 29: Calculator Output Pic1



# Angular JS Calculator

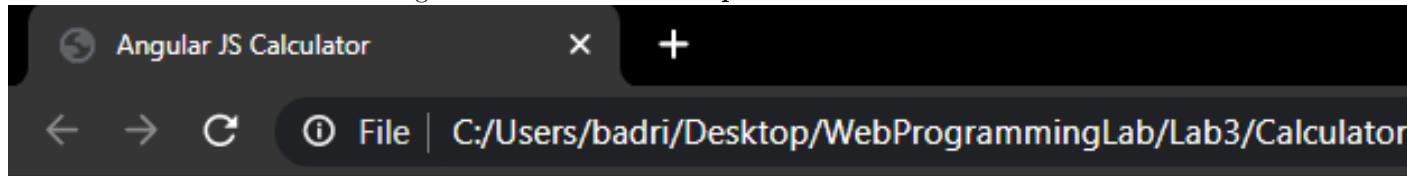
Value 1 :

Value 2 :

Operator :

**Result :  $50 * 30 = 1500$**

Figure 30: Calculator Output Pic2



Value 1 :

Value 2 :

Operator :

**Result : 50 - 30 = 20**

**Experiment Name:** Angular program to implement Components, Service, and Controllers

**Exercise Number:** 3B

**Date:** March 9, 2021

## HTML Code

```
<!DOCTYPE html>
<html>
<head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Components and Services</title>
    <script
        src="http://ajax.googleapis.com/ajax/libs/angularjs/1.6.9/angular.min.js"></script>
    <script src="App.js"></script>
    <script src="Service.js"></script>
    <script src="MathController.js"></script>
    <script src="Interval.js"></script>
    <script src="FileLocation.js"></script>
    <script src="Component.js"></script>
</head>

<body ng-app="myApp" align="center">

    <div align="center" class="box">
        <h2>
            <mycomp></mycomp>
```

```

</h2>

<div ng-controller="mathController">
  <table>
    <tr>
      <td><label>Value 1 :</label></td>
      <td></td>
      <td>
        <div class="inputBox">
          <input type="text" ng-model="x" />
        </div>
      </td>
      <td></td>
    </tr>

    <tr>
      <td><label>Value 2 :</label></td>
      <td></td>
      <td>
        <div class="inputBox">
          <input type="text" ng-model="y" />
        </div>
      </td>
      <td></td>
    </tr>

    <tr>
      <td>Result : </td>
      <td></td>
      <td><b>{{result}}</b></td>
      <td></td>
    </tr>
  </table>

  <input type="button" ng-click="calcAdd()" value="Addition" id="myBtn" />
  <input type="button" ng-click="calcSub()" value="Subtraction" id="myBtn"/>
  <input type="button" ng-click="calcMul()" value="Multiply" id="myBtn" />
  <input type="button" ng-click="calcDiv()" value="Division" id="myBtn" />
  <br>
</div>
</div>

<br>
<br>

<div ng-controller="sample">
  <h2>Time : {{theTime}}</h2>
</div>

<br>
<br>

<div ng-app="myApp" ng-controller="myCtrl" >
  <h2>File URL : {{myUrl}}</h2>
</div>

</body>
</html>

```

---

---

## Component Code

```
myApp.component("mycomp", {
  template: " {{ctrl.name}}{{$ctrl.myName}}",
  bindings: { name: "@" },
  controller: function () {
    this.myName = "AngularJs Arithmetic Calculator";
  },
});
```

---

## File Location Code

```
myApp.controller("myCtrl", function ($scope, $location)
{
  $scope.myUrl = $location.absUrl();
});
```

---

## Interval Code

```
myApp.controller("sample", function ($scope, $interval)
{
  $interval(function ()
  {
    $scope.theTime = new Date().toLocaleTimeString();
  }, 1000);
});
```

---

## Controller Code

```
myApp.controller("mathController", function ($scope, mathService)
{
  $scope.x = 10;
  $scope.y = 30;
  $scope.result = 0;
  $scope.calcAdd = function ()
  {
    $scope.result = mathService.add($scope.x, $scope.y);
  };
  $scope.calcSub = function ()
  {
    $scope.result = mathService.sub($scope.x, $scope.y);
  };
  $scope.calcMul = function ()
  {
    $scope.result = mathService.mul($scope.x, $scope.y);
  };
  $scope.calcDiv = function ()
  {
    $scope.result = mathService.div($scope.x, $scope.y);
  };
});
```

---

---

## Service Code

```
myApp.service("mathService", function ()  
{  
    this.add = function (x, y)  
    {  
        return parseInt(x) + parseInt(y);  
    };  
    this.sub = function (x, y)  
    {  
        return parseInt(x) - parseInt(y);  
    };  
    this.mul = function (x, y)  
    {  
        return parseInt(x) * parseInt(y);  
    };  
    this.div = function (x, y)  
    {  
        return parseInt(x) / parseInt(y);  
    };  
});
```

---

## Output

Figure 31: Components, Services and Controllers Output Pic1



File URL : file:///C:/Users/badri/Desktop/WebProgrammingLab/Lab3/Lab3.html#!/

Figure 32: Components, Services and Controllers Output Pic2



File URL : file:///C:/Users/badri/Desktop/WebProgrammingLab/Lab3/Lab3.html#!/

---

<b>Experiment Name:</b>	Implement Search to filter items
<b>Exercise Number:</b>	3C
<b>Date:</b>	March 9, 2021

---

## Filter Code

```
<!DOCTYPE>
<html lang = "en">
<head>
    <title>Filters</title>
    <script
        src="https://ajax.googleapis.com/ajax/libs/angularjs/1.6.9/angular.min.js"></script>
</head>
<body>

    <h2>Filters</h2>

    <div ng-app="myApp" ng-controller="namesCtrl">

        <h4>My technical skills</h4>
        <p>Type a letter in the input field to filter accordingly</p>

        <p><input type="text" ng-model="test"></p>

        <ul>
            <li ng-repeat="x in names | filter:test">
                {{ x }}
            </li>
        </ul>

    </div>

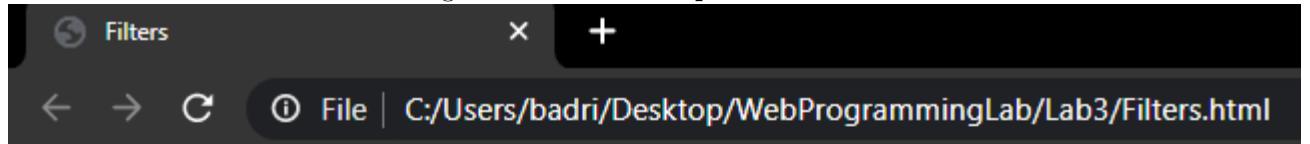
    <script>
angular.module('myApp', []).controller('namesCtrl', function($scope)
{
    $scope.names = [
        'Python',
        'Tensorflow',
        'Keras',
        'PyTorch',
        'NLTK',
        'spaCy',
        'OpenCV',
        'C',
        'C++',
        'Java',
        'Git',
        'HTML5',
        'CSS3',
        'JavaScript',
        'R',
        'LaTeX',
        'MASM',
        'GNU Octave'
    ]
})
```

```
];
});
</script>
</body>
</html>
```

---

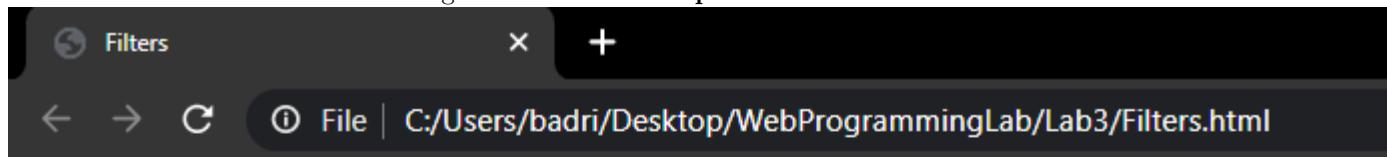
## Output

Figure 33: Filters Output Pic1



- Python
- Tensorflow
- Keras
- PyTorch
- NLTK
- spaCy
- OpenCV
- C
- C++
- Java
- Git
- HTML5
- CSS3
- JavaScript
- R
- LaTeX
- MASM
- GNU Octave

Figure 34: Filters Output Pic2



---

## Result

The programs to implement Simple Calculator, Components, Service, Controllers and search to filter items were created successfully using AngularJS.

---

---

## Angular program for navigation menu

<b>Name:</b>	M Badri Narayanan
<b>Reg No:</b>	185002018
<b>Semester:</b>	VI
<b>Exercise Number:</b>	4
<b>Date:</b>	March 16, 2021

---

### Aim

To Create a Navigation Menu using angular JS.

---

### Procedure

- We will build a simple Menu Bar application with below menu titles.
  - On clicking on any menu item it displays which menu item is chosen.
    - About
    - Education
    - Work Experience
    - Projects
    - Animation
    - Contact Form
  - Design your application using colors and required styles.
- 

### Angular Code (myng.js)

```
var myApp = angular.module('myApp',['ngRoute']);

myApp.config(['$routeProvider',function($routeProvider)
{
    $routeProvider
        .when('/about',
        {
            templateUrl: 'about.html'
        })
        .when('/education',
        {
            templateUrl: 'education.html'
        })
        .when('/workexperience',
        {
            templateUrl: 'workexperience.html'
        })
        .when('/projects',
        {
```

```

        templateUrl: 'projects.html'
    })
    .when('/contact',
    {
        templateUrl: 'contact.html'
    })
    .when('/animation',
    {
        templateUrl: 'animation.html'
    }).otherwise({
        redirectTo: '/about'
    });
}]);

```

---

## HTML Code (index.html)

```

<!DOCTYPE html>
<html ng-app="myApp">
<head>
    <meta charset="UTF-8">
    <meta name="description" content="Portfolio Web Page">
    <meta name="keywords" content="HTML5, CSS3, JavaScript">
    <meta name="author" content="M Badri Narayanan">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <title>My Web Page</title>
    <link rel="icon" type="image/x-icon" href="images/favicon.ico" />
    <link rel="stylesheet" href="style.css">
    <script
        src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.js"></script>
    <script type="text/javascript" src="angular-route.min.js"></script>
    <script src="myng.js"></script>

</head>
<body>
    <ng-include src= "header.html" ></ng-include>
    <br>
    <br>
    <br>
    <main ng-view>
    </main>
</body>
</html>

```

---

## HTML Code (header.html)

```

<nav class="nav">
    <a href="index.html"><h1 id="title">M Badri Narayanan</h1></a>
    <ol id="nav1">
        <li class="nelt"><a href="#!/animation"><div id="item1"
            <div>Animation</div></a></li>
        <li class="nelt"><a href="#!/contact"><div id="item1" class="tile1">Contact
            Form</div></a></li>
        <li class="nelt"><a href="#!/projects"><div id="item1"
            <div>Projects</div></a></li>
        <li class="nelt"><a href="#!/workexperience"><div id="item1" class="tile1">Work
            Experience</div></a></li>
        <li class="nelt"><a href="#!/education"><div id="item1"
            <div>Education</div></a></li>

```

```

<li class="nelt"><a href="#!/about"><div id="item1"
    ↵   class="tile1">About</div></a></li>
</ol>
</nav>

```

---

## HTML Code (about.html)

```

<h1>About</h1>
<p class = "static">I am currently pursuing my bachelors in Information Technology
    ↵   from SSN College of Engineering, Chennai. I am interested in the fields of
    ↵   Machine Learning , Deep Learning, Natural Language Processing, Computer Vision
    ↵   and Data Science. I would like to work in the aforementioned fields and develop
    ↵   real world solutions. I am also an avid sports fan and my hobbies include
    ↵   playing cricket, listening to music, watching movies and reading books.</p>

<h3>My Social Networking Sites</h3>
<ol>
    <li><a href="https://github.com/MBadriNarayanan"
        ↵   target="_blank">GitHub</a></li>
    <li><a href="https://www.linkedin.com/in/mbadrinarayanan"
        ↵   target="_blank">LinkedIn</a></li>
</ol>

<h3>My Skills</h3>
<ul>
    <li><b>Programming Languages:</b> Python, C, C++, LATEX</li>
    <li><b>Web Development:</b> HTML5, CSS3, JavaScript</li>
    <li><b>Software & Tools:</b> Git, TensorFlow, Keras, PyTorch, scikit,
        ↵   NLTK, spaCy, OpenCV</li>
</ul>

```

---

## HTML Code (education.html)

```

<h4>My Education Details</h4>
    <table border="1" align="left" width="40%">
        <tr><td>College / School</td><td>Grade</td><td>Marks
            ↵   Obtained</td></tr>
        <tr><td>SSN College of Engineering, Chennai</td><td>BTech
            ↵   Information Technology</td><td>Current GPA : 8.828 (V
            ↵   Semester)</td></tr>
        <tr><td>Vidya Mandir Senior Secondary School,
            ↵   Chennai</td><td>12th Grade, Computer Science
            ↵   Group</td><td>94.4 %</td></tr>
        <tr><td>Vidya Mandir Senior Secondary School,
            ↵   Chennai</td><td>10th</td><td>8.8</td></tr>
    </table>

    <h4>Extra Curricular</h4>
    <ul>
        <li>Volunteering with Chennai Volunteers to teach spoken
            ↵   English classes for Tamil medium students.</li>
        <li>Captained the school cricket team</li>
        <li>Represented the college cricket team</li>
    </ul>

    <h4>Awards</h4>

```

```

<ul>
    <li>Won the 2nd best project in Computer Science in
        ↳ 12th grade.</li>
    <li>Stood school 3rd in Chemistry in
        ↳ 12th grade.</li>
</ul>

```

---

## HTML Code (workexperience.html)

```

<h1>Work Experience</h1>
    <h4>Machine Learning Intern, MAD STREET DEN, Chennai</h4>
        <ul>
            <li><b>Duration : March 2021 - Present</b></li>
            <li>Worked in clustering of catalogue items using Artificial
                ↳ Neural Networks.</li>
        </ul>

    <h4>Undergraduate Research Assistant, SOLARILLION FOUNDATION, Chennai</h4>
        <ul>
            <li><b>Duration : February 2020 - Present</b></li>
            <li>Research on sign language translation.</li>
        </ul>

    <h4>Freelance Projects</h4>
        <ul>
            <li><b>Duration : October 2020 - Present</b></li>
            <li>Undertook projects via Freelancer.com.</li>
            <li>Classification of ICD Code using state of art Transformer
                ↳ Model.</li>
            <li>Malware Detection using Deep Learning and Artificial
                ↳ Neural Networks.</li>
            <li>Arabic Tweet Rumor Detection using NLP and LSTMs.</li>
        </ul>

    <h4>ML / AI Intern, APPCILIOUS PVT LTD, Bangalore</h4>
        <ul>
            <li><b>Duration : August 2020 - September 2020</b></li>
            <li>Data preprocessing, data cleaning.</li>
            <li>Developed a chat bot using modern NLP architectures and
                ↳ techniques.</li>
            <li>Feature extraction and feature comparison using SIFT and
                ↳ OpenCV.</li>
        </ul>

    <h4>Summer Intern, PRODIAN INFOTECH PVT LTD, Chennai</h4>
        <ul>
            <li><b>Duration : June 2020 - August 2020</b></li>
            <li>Data preprocessing, data cleansing of cricket match data
                ↳ and feature analysis.</li>
            <li>Applying Unsupervised ML Algorithms to get the top 5
                ↳ features that affect a cricket match.</li>
        </ul>

```

---

---

## HTML Code (projects.html)

```
<h1>Projects</h1>
    <h4>Clickbait Classification</h4>
        <ul>
            <li>Done in <b>August 2020</b></li>
            <li><a
                ↵ href="https://github.com/MBadriNarayanan/ClickbaitClassification"
                ↵ target="_blank">Git Hub Link</a></li>
            <li>Classifying clickbaits using modern NLP techniques and
                ↵ architectures.</li>
        </ul>
    <h4>Object Detection Using YOLO v3</h4>
        <ul>
            <li>Done in <b>August 2020</b></li>
            <li><a
                ↵ href="https://github.com/MBadriNarayanan/ObjectDetectionUsingYOLOv3"
                ↵ target="_blank">Git Hub Link</a></li>
            <li>Object detection using YOLO v3 Algorithm with custom
                ↵ dataset.</li>
        </ul>

    <h4>Machine Translator</h4>
        <ul>
            <li>Done in <b>August 2020</b></li>
            <li><a
                ↵ href="https://github.com/MBadriNarayanan/MachineTranslation"
                ↵ target="_blank">Git Hub Link</a></li>
            <li>English to French neural machine translator built using
                ↵ Transformer architecture in NLP.</li>
        </ul>

    <h4>Object Detection Using YOLO v3</h4>
    <ul>
        <li>Done in <b>February 2020 - April 2020</b></li>
        <li><a href="https://github.com/MBadriNarayanan/FlightDelayPrediction"
            ↵ target="_blank">Git Hub Link</a></li>
        <li>Developed a two stage machine learning model to predict if flights
            ↵ will be delayed upon arrival and if so, the delay in minutes based
            ↵ on the weather data at departure.</li>
    </ul>
```

---

## HTML Code (animation.html)

```
<script
    ↵ src="https://ajax.googleapis.com/ajax/libs/angularjs/1.6.9/angular.min.js"></script>
<script
    ↵ src="https://ajax.googleapis.com/ajax/libs/angularjs/1.6.9/angular-animate.js"></script>
<body ng-app="ngAnimate">

    <h2>Click the check box to view the animation<input type="checkbox"
        ↵ ng-model="myCheck"></h2>
    <div ng-hide="myCheck">
        <h3>Profile</h3>
            <img src = "Profile.png" alt = "My Profile Picture"
                ↵ usemap="#profile" height = "400" width = "400"></img><br>
        <h3>Languages</h3>
```

```

        <ul>
            <li>English</li>
            <li>Tamil</li>
            <li>Hindi</li>
            <li>Sanskrit</li>

        </ul>

        <h3>Achievements</h3>
        <ul>
            <li>Stood school 3rd in Chemistry in 12th
                ↵ standard.</li>
            <li>Won the 2nd best project in Computer Science in
                ↵ 12th standard.</li>
        </ul>
    </div>

</body>

```

---

## CSS Code

```

body
{
    background-color: linen;
}

form
{
    text-align: center;
}

main.ng-enter
{
    transition: 0.5s linear all;
    opacity: 0;

}

main.ng-enter.ng-enter-active
{
    opacity: 1;
}

.nav
{
    position: fixed;
    margin-top: 0px;
    width: 101%;
    height: 70px;
    background-color: #00303f;
    margin-left: -8px;
    padding-right: -20px;
    margin-top: -10px;
    z-index: 1;
    top: 0;
}

#title
{
    display: inline;
    float: left;
    margin-bottom: 1px;
    padding-left: 5px;
}

```

```

        color: white;
    }
    nav li
    {
        list-style-type: none;
    }
    #nav1 a
    {
        text-decoration: none;
        color: white;
        position: relative;
        float: right;
        display: inline-block;
        width: 130px;
        height: 68px;
        top: -15px;
        bottom: -10px;
        left: -19px;
    }
    .tile1
    {
        position: absolute;
        top: 25px;
        left: 40px;
    }
    #nav1 a:hover
    {
        background-color: #b67171;
        transition: background-color 0.5s ease-in-out;
        transition-timing-function: ease;
    }
    ul
    {
        background-color: lightblue;
        width: 20%;
        padding: 25px;
    }
    .header
    {
        background-color: rgb(255, 253, 208);
        padding: 20px;
        text-align: center;
    }
    #animated_div
    {
        width:70px;
        height:47px;
        background: #92B901;
        color: white;
        position: relative;
        font-weight:bold;
        font-size:20px;
        padding:10px;
        animation:animated_div 5s 1;
        -moz-animation:animated_div 5s 1;
        -webkit-animation:animated_div 5s 1;
        -o-animation:animated_div 5s 1;
        border-radius:5px;
        -webkit-border-radius:5px;
    }
}

```

```

@keyframes animated_div
{
0% {transform: rotate(0deg);left:0px;}
25% {transform: rotate(20deg);left:0px;}
50% {transform: rotate(0deg);left:500px;}
55% {transform: rotate(0deg);left:500px;}
70% {transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {transform: rotate(-360deg);left:0px;}
}

@-webkit-keyframes animated_div
{
0% {-webkit-transform: rotate(0deg);left:0px;}
25% {-webkit-transform: rotate(20deg);left:0px;}
50% {-webkit-transform: rotate(0deg);left:500px;}
55% {-webkit-transform: rotate(0deg);left:500px;}
70% {-webkit-transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {-webkit-transform: rotate(-360deg);left:0px;}
}

@-moz-keyframes animated_div
{
0% {-moz-transform: rotate(0deg);left:0px;}
25% {-moz-transform: rotate(20deg);left:0px;}
50% {-moz-transform: rotate(0deg);left:500px;}
55% {-moz-transform: rotate(0deg);left:500px;}
70% {-moz-transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {-moz-transform: rotate(-360deg);left:0px;}
}

@-o-keyframes animated_div
{
0% {transform: rotate(0deg);left:0px;}
25% {transform: rotate(20deg);left:0px;}
50% {transform: rotate(0deg);left:500px;}
55% {transform: rotate(0deg);left:500px;}
70% {transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {transform: rotate(-360deg);left:0px;}
}

```

---

## Output

Figure 35: Output Pic1

M Badri Narayanan

About Education Work Experience Projects Contact Form Animation

### About

I am currently pursuing my bachelors in Information Technology from SSN College of Engineering, Chennai. I am interested in the fields of Machine Learning , Deep Learning, Natural Langunge Processing, Computer Vision and Data Science. I would like to work in the aforementioned fields and develop real world solutions. I am also an avid sports fan and my hobbies include playing cricket, listening to music, watching movies and reading books.

### My Social Networking Sites

1. [GitHub](#)
2. [LinkedIn](#)

### My Skills

- Programming Languages: Python, C, C++, LATEX
- Web Development: HTML5, CSS3, JavaScript
- Software & Tools: Git, TensorFlow, Keras, PyTorch, scikit, NLTK, spaCy, OpenCV

Figure 36: Output Pic2

M Badri Narayanan

About Education Work Experience Projects Contact Form Animation

### My Education Details

College / School	Grade	Marks Obtained
SSN College of Engineering, Chennai	BTech Information Technology	Current GPA: 8.828 (V Semester)
Vidya Mandir Senior Secondary School, Chennai	12 <sup>th</sup> Grade, Computer Science Group	94.4 %
Vidya Mandir Senior Secondary School, Chennai	10 <sup>th</sup> Grade	8.8

### Extra Curricular

- Volunteering with Chennai Volunteers to teach spoken English classes for Tamil medium students.
- Captained the school cricket team
- Represented the college cricket team

### Awards

- Won the 2<sup>nd</sup> best project in Computer Science in 12<sup>th</sup> grade.
- Stood school 3<sup>rd</sup> in Chemistry in 12<sup>th</sup> grade.

Figure 37: Output Pic3

M Badri Narayanan

About Education Work Experience Projects Contact Form Animation

### Work Experience

Machine Learning Intern, MAD STREET DEN, Chennai

- Duration : March 2021 - Present
- Worked in clustering of catalogue items using Artificial Neural Networks.

Undergraduate Research Assistant, SOLARILLION FOUNDATION, Chennai

- Duration : February 2020 - Present
- Research on sign language translation.

### Freelance Projects

- Duration : October 2020 - Present
- Undertook projects via Freelancer.com.
- Classification of ICD Code using state of art Transformer Model.
- Malware Detection using Deep Learning and Artificial Neural Networks.
- Arabic Tweet Rumor Detection using NLP and LSTMs.

ML / AI Intern, APPCILIOUS PVT LTD, Bangalore

- Duration : August 2020 - September 2020
- Data preprocessing, data cleaning.
- Developed a chat bot using modern NLP architectures and techniques.

Figure 38: Output Pic4

**M Badri Narayanan**

About Education Work Experience Projects Contact Form Animation

## Projects

**Clickbait Classification**

- Done in August 2020
- [GitHub Link](#)
- Classifying clickbaits using modern NLP techniques and architectures.

**Object Detection Using YOLO v3**

- Done in August 2020
- [GitHub Link](#)
- Object detection using YOLO v3 Algorithm with custom dataset.

**Machine Translator**

- Done in August 2020
- [GitHub Link](#)
- English to French neural machine translator built using Transformer architecture in NLP.

**Object Detection Using YOLO v3**

- Done in February 2020 - April 2020
- [GitHub Link](#)
- Developed a two stage machine learning model to predict if flights will be delayed upon arrival and if so, the delay in minutes based on the weather data at

Figure 39: Output Pic5

**M Badri Narayanan**

About Education Work Experience Projects Contact Form Animation

**Freelance Projects**

- Duration : February 2020 - Present
- Research on sign language translation.

**ML / AI Intern, APPCILIOUS PVT LTD, Bangalore**

- Duration : October 2020 - Present
- Undertook projects via Freelancer.com
- Classification of ICD Code using state of art Transformer Model.
- Malware Detection using Deep Learning and Artificial Neural Networks.
- Arabic Tweet Rumor Detection using NLP and LSTMs.

**Summer Intern, PRODIAN INFOTECH PVT LTD, Chennai**

- Duration : August 2020 - September 2020
- Data preprocessing, data cleaning.
- Developed a chat bot using modern NLP architectures and techniques.
- Feature extraction and feature comparison using SIFT and OpenCV.

Figure 40: Output Pic6

**M Badri Narayanan**

About Education Work Experience Projects Contact Form Animation

Click the check box to view the animation □

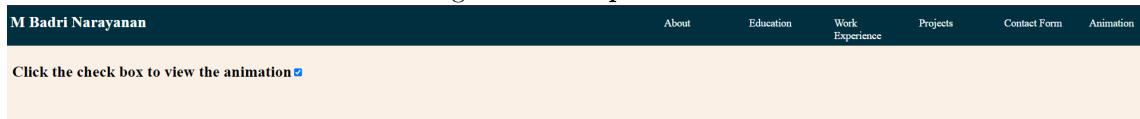
Profile



Languages

- English
- Tamil
- Hindi
- Sanskrit

Figure 41: Output Pic7



---

## Result

Thus the navigation menu is created using angular js and the code is executed successfully.

---

---

## AngularJS: Switching between layouts and Animation

<b>Name:</b>	M Badri Narayanan
<b>Reg No:</b>	185002018
<b>Semester:</b>	VI
<b>Exercise Number:</b>	5
<b>Date:</b>	March 23, 2021

---

### Aim

To switch between layouts and implement animations using AngularJS.

---

### Procedure

- Include the necessary angular scripts.
  - Create an angular app with dependencies ngRoute and ngAnimate.
  - Use the \$routeProvider in config() block to configure different routes.
  - When a specific url is entered, the browser will route you to the appropriate view.
  - For animation, use ng-enter, ng-leave,etc to provide a smooth transition while switching between different views.
- 

<b>Experiment Name:</b>	Angular program to switch between layouts
<b>Exercise Number:</b>	5A
<b>Date:</b>	March 23, 2021

---

### Angular Code (myng.js)

```
var myApp = angular.module('myApp',['ngRoute']);

myApp.config(['$routeProvider',function($routeProvider)
{
    $routeProvider
        .when('/about',
        {
            templateUrl: 'about.html'
        })
        .when('/education',
        {
            templateUrl: 'education.html'
        })
        .when('/workexperience',
        {
```

```

        templateUrl: 'workexperience.html'
    })
.when('/projects',
{
    templateUrl: 'projects.html'
})
.when('/contact',
{
    templateUrl: 'contact.html'
})
.when('/animation',
{
    templateUrl: 'animation.html'
}).otherwise({
    redirectTo: '/about'
});
]);

```

---

## HTML Code (index.html)

```

<!DOCTYPE html>
<html ng-app="myApp">
<head>
    <meta charset="UTF-8">
    <meta name="description" content="Portfolio Web Page">
    <meta name="keywords" content="HTML5, CSS3, JavaScript">
    <meta name="author" content="M Badri Narayanan">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <title>My Web Page</title>
    <link rel="icon" type="image/x-icon" href="images/favicon.ico" />
    <link rel="stylesheet" href="style.css">
    <script
        ↳ src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.js"></script>
    <script type="text/javascript" src="angular-route.min.js"></script>
    <script src="myng.js"></script>

</head>
<body>
    <ng-include src="header.html"></ng-include>
    <br>
    <br>
    <br>
    <main ng-view>
    </main>
</body>
</html>

```

---

## HTML Code (header.html)

```

<nav class="nav">
    <a href="index.html"><h1 id="title">M Badri Narayanan</h1></a>
    <ol id="nav1">
        <li class="nelt"><a href="#!/animation"><div id="item1"
            ↳ class="tile1">Animation</div></a></li>
        <li class="nelt"><a href="#!/contact"><div id="item1" class="tile1">Contact
            ↳ Form</div></a></li>
        <li class="nelt"><a href="#!/projects"><div id="item1"
            ↳ class="tile1">Projects</div></a></li>

```

```

<li class="nelt"><a href="#!/workexperience"><div id="item1" class="tile1">Work
    Experience</div></a></li>
<li class="nelt"><a href="#!/education"><div id="item1"
    class="tile1">Education</div></a></li>
<li class="nelt"><a href="#!/about"><div id="item1"
    class="tile1">About</div></a></li>
</ol>
</nav>

```

---

## HTML Code (about.html)

```

<h1>About</h1>
<p class = "static">I am currently pursuing my bachelors in Information Technology
    from SSN College of Engineering, Chennai. I am interested in the fields of
    Machine Learning , Deep Learning, Natural Language Processing, Computer Vision
    and Data Science. I would like to work in the aforementioned fields and develop
    real world solutions. I am also an avid sports fan and my hobbies include
    playing cricket, listening to music, watching movies and reading books.</p>

<h3>My Social Networking Sites</h3>
<ol>
    <li><a href="https://github.com/MBadriNarayanan"
        target="_blank">GitHub</a></li>
    <li><a href="https://www.linkedin.com/in/mbadrinarayanan"
        target="_blank">LinkedIn</a></li>
</ol>

<h3>My Skills</h3>
<ul>
    <li><b>Programming Languages:</b> Python, C, C++, LATEX</li>
    <li><b>Web Development:</b> HTML5, CSS3, JavaScript</li>
    <li><b>Software & Tools:</b> Git, TensorFlow, Keras, PyTorch, scikit,
        NLTK, spaCy, OpenCV</li>
</ul>

```

---

## HTML Code (education.html)

```

<h4>My Education Details</h4>
    <table border="1" align="left" width="40%">
        <tr><td>College / School</td><td>Grade</td><td>Marks
            Obtained</td></tr>
        <tr><td>SSN College of Engineering, Chennai</td><td>BTech
            Information Technology</td><td>Current GPA : 8.828 (V
            Semester)</td></tr>
        <tr><td>Vidya Mandir Senior Secondary School,
            Chennai</td><td>12th Grade, Computer Science
            Group</td><td>94.4 %</td></tr>
        <tr><td>Vidya Mandir Senior Secondary School,
            Chennai</td><td>10th
            Grade</td><td>8.8</td></tr>
    </table>

    <h4>Extra Curricular</h4>
    <ul>
        <li>Volunteering with Chennai Volunteers to teach spoken
            English classes for Tamil medium students.</li>
        <li>Captained the school cricket team</li>
    
```

```

        <li>Represented the college cricket team</li>
    </ul>

    <h4>Awards</h4>
    <ul>
        <li>Won the 2nd best project in Computer Science in
            ↳ 12th grade.</li>
        <li>Stood school 3rd in Chemistry in
            ↳ 12th grade.</li>
    </ul>

```

---

## HTML Code (workexperience.html)

```

<h1>Work Experience</h1>
    <h4>Machine Learning Intern, MAD STREET DEN, Chennai</h4>
        <ul>
            <li><b>Duration : March 2021 - Present</b></li>
            <li>Worked in clustering of catalogue items using Artificial
                ↳ Neural Networks.</li>
        </ul>

    <h4>Undergraduate Research Assistant, SOLARILLION FOUNDATION, Chennai</h4>
        <ul>
            <li><b>Duration : February 2020 - Present</b></li>
            <li>Research on sign language translation.</li>
        </ul>

    <h4>Freelance Projects</h4>
        <ul>
            <li><b>Duration : October 2020 - Present</b></li>
            <li>Undertook projects via Freelancer.com.</li>
            <li>Classification of ICD Code using state of art Transformer
                ↳ Model.</li>
            <li>Malware Detection using Deep Learning and Artificial
                ↳ Neural Networks.</li>
            <li>Arabic Tweet Rumor Detection using NLP and LSTMs.</li>
        </ul>
    <h4>ML / AI Intern, APPCILIOUS PVT LTD, Bangalore</h4>
        <ul>
            <li><b>Duration : August 2020 - September 2020</b></li>
            <li>Data preprocessing, data cleaning.</li>
            <li>Developed a chat bot using modern NLP architectures and
                ↳ techniques.</li>
            <li>Feature extraction and feature comparison using SIFT and
                ↳ OpenCV.</li>
        </ul>
    <h4>Summer Intern, PRODIAN INFOTECH PVT LTD, Chennai</h4>
        <ul>
            <li><b>Duration : June 2020 - August 2020</b></li>
            <li>Data preprocessing, data cleannning of cricket match data
                ↳ and feature analysis.</li>
            <li>Applying Unsupervised ML Algorithms to get the top 5
                ↳ features that affect a cricket match.</li>
        </ul>

```

---

---

## HTML Code (projects.html)

```
<h1>Projects</h1>
    <h4>Clickbait Classification</h4>
        <ul>
            <li>Done in <b>August 2020</b></li>
            <li><a
                ↳ href="https://github.com/MBadriNarayanan/ClickbaitClassification"
                ↳ target="_blank">Git Hub Link</a></li>
            <li>Classifying clickbaits using modern NLP techniques and
                ↳ architectures.</li>
        </ul>
    <h4>Object Detection Using YOLO v3</h4>
        <ul>
            <li>Done in <b>August 2020</b></li>
            <li><a
                ↳ href="https://github.com/MBadriNarayanan/ObjectDetectionUsingYOLOv3"
                ↳ target="_blank">Git Hub Link</a></li>
            <li>Object detection using YOLO v3 Algorithm with custom
                ↳ dataset.</li>
        </ul>

    <h4>Machine Translator</h4>
        <ul>
            <li>Done in <b>August 2020</b></li>
            <li><a
                ↳ href="https://github.com/MBadriNarayanan/MachineTranslation"
                ↳ target="_blank">Git Hub Link</a></li>
            <li>English to French neural machine translator built using
                ↳ Transformer architecture in NLP.</li>
        </ul>

    <h4>Object Detection Using YOLO v3</h4>
    <ul>
        <li>Done in <b>February 2020 - April 2020</b></li>
        <li><a href="https://github.com/MBadriNarayanan/FlightDelayPrediction"
            ↳ target="_blank">Git Hub Link</a></li>
        <li>Developed a two stage machine learning model to predict if flights
            ↳ will be delayed upon arrival and if so, the delay in minutes based
            ↳ on the weather data at departure.</li>
    </ul>
```

---

## CSS Code

```
body
{
    background-color: linen;
}
form
{
    text-align: center;
}
main.ng-enter
{
    transition: 0.5s linear all;
    opacity: 0;
```

```

}

main.ng-enter.ng-enter-active
{
    opacity: 1;
}
.nav
{
    position: fixed;
    margin-top: 0px;
    width: 101%;
    height: 70px;
    background-color: #00303f;
    margin-left: -8px;
    padding-right: -20px;
    margin-top: -10px;
    z-index: 1;
    top: 0;
}
#title
{
    display: inline;
    float: left;
    margin-bottom: 1px;
    padding-left: 5px;
    color: white;
}
nav li
{
    list-style-type: none;
}
#nav1 a
{
    text-decoration: none;
    color: white;
    position: relative;
    float: right;
    display: inline-block;
    width: 130px;
    height: 68px;
    top: -15px;
    bottom: -10px;
    left: -19px;
}
.tile1
{
    position: absolute;
    top: 25px;
    left: 40px;
}
#nav1 a:hover
{
    background-color: #b67171;
    transition: background-color 0.5s ease-in-out;
    transition-timing-function: ease;
}
ul
{
    background-color: lightblue;
    width: 20%;
}

```

```

    padding: 25px;
}
.header
{
    background-color: rgb(255, 253, 208);
    padding: 20px;
    text-align: center;
}
#animated_div
{
    width:70px;
    height:47px;
    background: #92B901;
    color: white;
    position: relative;
    font-weight:bold;
    font-size:20px;
    padding:10px;
    animation:animated_div 5s 1;
    -moz-animation:animated_div 5s 1;
    -webkit-animation:animated_div 5s 1;
    -o-animation:animated_div 5s 1;
    border-radius:5px;
    -webkit-border-radius:5px;
}
@keyframes animated_div
{
0% {transform: rotate(0deg);left:0px;}
25% {transform: rotate(20deg);left:0px;}
50% {transform: rotate(0deg);left:500px;}
55% {transform: rotate(0deg);left:500px;}
70% {transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {transform: rotate(-360deg);left:0px;}
}

@-webkit-keyframes animated_div
{
0% {-webkit-transform: rotate(0deg);left:0px;}
25% {-webkit-transform: rotate(20deg);left:0px;}
50% {-webkit-transform: rotate(0deg);left:500px;}
55% {-webkit-transform: rotate(0deg);left:500px;}
70% {-webkit-transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {-webkit-transform: rotate(-360deg);left:0px;}
}

@-moz-keyframes animated_div
{
0% {-moz-transform: rotate(0deg);left:0px;}
25% {-moz-transform: rotate(20deg);left:0px;}
50% {-moz-transform: rotate(0deg);left:500px;}
55% {-moz-transform: rotate(0deg);left:500px;}
70% {-moz-transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {-moz-transform: rotate(-360deg);left:0px;}
}

@-o-keyframes animated_div
{
0% {transform: rotate(0deg);left:0px;}
25% {transform: rotate(20deg);left:0px;}
50% {transform: rotate(0deg);left:500px;}

```

```

55% {transform: rotate(0deg);left:500px;}
70% {transform: rotate(0deg);left:500px;background:#1ec7e6;}
100% {transform: rotate(-360deg);left:0px;}
}

```

---

## Output

Figure 42: Output Pic1

Figure 43: Output Pic2

Figure 44: Output Pic3

Figure 45: Output Pic4

**M Badri Narayanan**

[About](#) [Education](#) [Work Experience](#) [Projects](#) [Contact Form](#) [Animation](#)

## Projects

**Clickbait Classification**

- Done in August 2020
- [GitHub Link](#)
- Classifying clickbaits using modern NLP techniques and architectures.

**Object Detection Using YOLO v3**

- Done in August 2020
- [GitHub Link](#)
- Object detection using YOLO v3 Algorithm with custom dataset.

**Machine Translator**

- Done in August 2020
- [GitHub Link](#)
- English to French neural machine translator built using Transformer architecture in NLP.

**Object Detection Using YOLO v3**

- Done in February 2020 - April 2020
- [GitHub Link](#)
- Developed a two stage machine learning model to predict if flights will be delayed upon arrival and if so, the delay in minutes based on the weather data at

Figure 46: Output Pic5

**M Badri Narayanan**

[About](#) [Education](#) [Work Experience](#) [Projects](#) [Contact Form](#) [Animation](#)

**Freelance Projects**

- Duration : February 2020 - Present
- Research on sign language translation.

**ML / AI Intern, APPCILIOUS PVT LTD, Bangalore**

- Duration : October 2020 - Present
- Undertook projects via Freelancer.com
- Classification of ICD Code using state of art Transformer Model.
- Malware Detection using Deep Learning and Artificial Neural Networks.
- Arabic Tweet Rumor Detection using NLP and LSTMs.

**Summer Intern, PRODIAN INFOTECH PVT LTD, Chennai**

- Duration : August 2020 - September 2020
- Data preprocessing, data cleaning.
- Developed a chat bot using modern NLP architectures and techniques.
- Feature extraction and feature comparison using SIFT and OpenCV.

Figure 47: Output Pic6

M Badri Narayanan

About Education Work Experience Projects Contact Form Animation

### Contact Form

Title  
Mr

First Name  
John

Last Name  
Doe

Phone Number  
8220584258

Email  
johndoe@gmail.com

Subject  
Very good website !!

Figure 48: Output Pic7

M Badri Narayanan

About Education Work Experience Projects Contact Form Animation

### Contact Form

Title  
Mrs

First Name  
Jane

Last Name  
Doe

Phone Number  
1234567890

Email  
janedoe@gmail.com

Subject  
Greate website !!

---

<b>Experiment Name:</b>	Angular JS Animations
<b>Exercise Number:</b>	5B
<b>Date:</b>	March 23, 2021

---

## Angular Code (animation.html)

```
<script
  ↵  src="https://ajax.googleapis.com/ajax/libs/angularjs/1.6.9/angular.min.js"></script>
<script
  ↵  src="https://ajax.googleapis.com/ajax/libs/angularjs/1.6.9/angular-animate.js"></script>
<body ng-app="ngAnimate">

  <h2>Click the check box to view the animation<input type="checkbox"
  ↵  ng-model="myCheck"></h2>
  <div ng-hide="myCheck">
    <h3>Profile</h3>
    <img src = "Profile.png" alt = "My Profile Picture"
      ↵  usemap="#profile" height = "400" width = "400"></img><br>
    <h3>Languages</h3>
    <ul>
      <li>English</li>
      <li>Tamil</li>
      <li>Hindi</li>
      <li>Sanskrit</li>
    </ul>

    <h3>Achievements</h3>
    <ul>
      <li>Stood school 3rd in Chemistry in 12th
        ↵  standard.</li>
      <li>Won the 2nd best project in Computer Science in
        ↵  12th standard.</li>
    </ul>
  </div>

</body>
```

---

---

## Output

Figure 49: Output Pic1

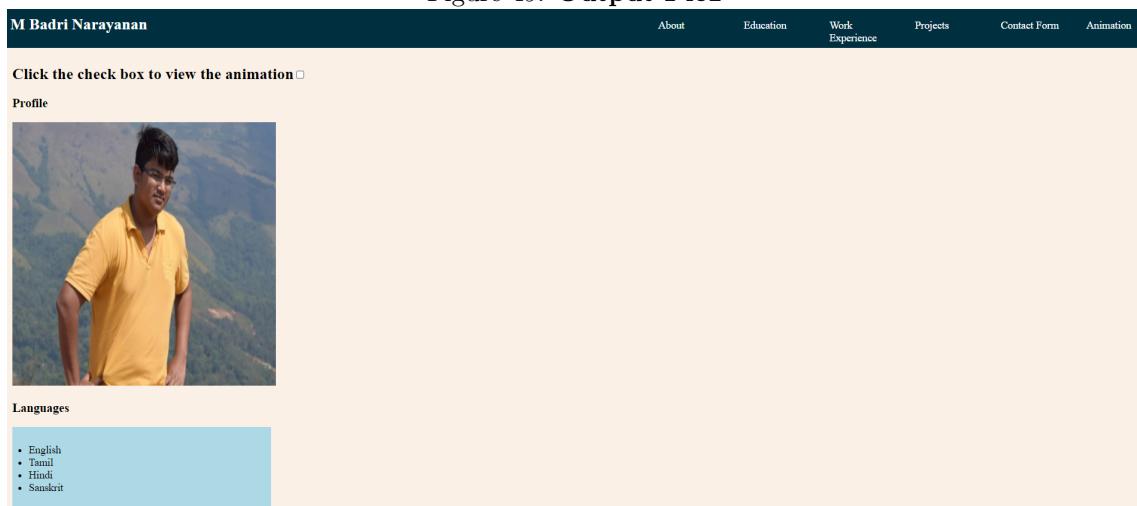


Figure 50: Output Pic2



---

## Result

Switching between layouts and Animation were implemented successfully.

---

---

## Angular Program to create form with real time updations

<b>Name:</b>	M Badri Narayanan
<b>Reg No:</b>	185002018
<b>Semester:</b>	VI
<b>Exercise Number:</b>	6
<b>Date:</b>	March 30, 2021

---

### Aim

To create a form with real time updations using Angular JS.

---

### Procedure

- Install a WAMP server in your system.
  - Create a database and a table for your application.
  - Create 3 PHP files each for homepage, inserting and viewing the data. Establish the SQL connection and then create your angular form for inserting and viewing the data. Use appropriate SQL commands for inserting and viewing the data.
  - Design your application using colors and required styles.
- 

### Angular Code (myng.js)

```
var myApp = angular.module('myApp',['ngRoute']);

myApp.config(['$routeProvider',function($routeProvider)
{

    $routeProvider
        .when('/about',
        {
            templateUrl: 'about.html'
        })
        .when('/education',
        {
            templateUrl: 'education.html'
        })
        .when('/workexperience',
        {
            templateUrl: 'workexperience.html'
        })
        .when('/projects',
        {
            templateUrl: 'projects.html'
        })
        .when('/contact',
        {
            templateUrl: 'contact.html'
        })
}]);
```

```

        })
        .when('/animation',
        {
            templateUrl: 'animation.html'
        }).otherwise({
            redirectTo: '/about'
        });
    ]);
}

```

---

## HTML Code (index.html)

```

<!DOCTYPE html>
<html ng-app="myApp">
    <head>
        <meta charset="UTF-8">
        <meta name="description" content="Portfolio Web Page">
        <meta name="keywords" content="HTML5, CSS3, JavaScript">
        <meta name="author" content="M Badri Narayanan">
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
            <title>My Web Page</title>
        <link rel="icon" type="image/x-icon" href="images/favicon.ico" />
        <link rel="stylesheet" href="style.css">
        <script
            ↵ src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.js"></script>
        <script type="text/javascript" src="angular-route.min.js"></script>
        <script src="myng.js"></script>

    </head>
    <body>
        <ng-include src="header.html"></ng-include>
        <br>
        <br>
        <br>
        <main ng-view>
        </main>
    </body>
</html>

```

---

## HTML Code (header.html)

```

<nav class="nav">
    <a href="index.html"><h1 id="title">M Badri Narayanan</h1></a>
    <ol id="nav1">
        <li class="nelt"><a href="#!/animation"><div id="item1"
            ↵ class="tile1">Animation</div></a></li>
        <li class="nelt"><a href="#!/contact"><div id="item1" class="tile1">Contact
            ↵ Form</div></a></li>
        <li class="nelt"><a href="#!/projects"><div id="item1"
            ↵ class="tile1">Projects</div></a></li>
        <li class="nelt"><a href="#!/workexperience"><div id="item1" class="tile1">Work
            ↵ Experience</div></a></li>
        <li class="nelt"><a href="#!/education"><div id="item1"
            ↵ class="tile1">Education</div></a></li>
        <li class="nelt"><a href="#!/about"><div id="item1"
            ↵ class="tile1">About</div></a></li>
    </ol>
</nav>

```

---

---

## HTML Code (about.html)

```
<h1>About</h1>
<p class = "static">I am currently pursuing my bachelors in Information Technology
→ from SSN College of Engineering, Chennai. I am interested in the fields of
→ Machine Learning , Deep Learning, Natural Language Processing, Computer Vision
→ and Data Science. I would like to work in the aforementioned fields and develop
→ real world solutions. I am also an avid sports fan and my hobbies include
→ playing cricket, listening to music, watching movies and reading books.</p>

<h3>My Social Networking Sites</h3>
<ol>
  <li><a href="https://github.com/MBadriNarayanan"
    → target="_blank">GitHub</a></li>
  <li><a href="https://www.linkedin.com/in/mbadrinarayanan"
    → target="_blank">LinkedIn</a></li>
</ol>

<h3>My Skills</h3>
<ul>
  <li><b>Programming Languages:</b> Python, C, C++, LATEX</li>
  <li><b>Web Development:</b> HTML5, CSS3, JavaScript</li>
  <li><b>Software & Tools:</b> Git, TensorFlow, Keras, PyTorch, scikit,
    → NLTK, spaCy, OpenCV</li>
</ul>
```

---

## HTML Code (education.html)

```
<h4>My Education Details</h4>
  <table border="1" align="left" width="40%">
    <tr><td>College / School</td><td>Grade</td><td>Marks
      → Obtained</td></tr>
    <tr><td>SSN College of Engineering, Chennai</td><td>BTech
      → Information Technology</td><td>Current GPA : 8.828 (V
      → Semester)</td></tr>
    <tr><td>Vidya Mandir Senior Secondary School,
      → Chennai</td><td>12th Grade, Computer Science
      → Group</td><td>94.4 %</td></tr>
    <tr><td>Vidya Mandir Senior Secondary School,
      → Chennai</td><td>10th
      → Grade</td><td>8.8</td></tr>
  </table>

  <h4>Extra Curricular</h4>
  <ul>
    <li>Volunteering with Chennai Volunteers to teach spoken
      → English classes for Tamil medium students.</li>
    <li>Captained the school cricket team</li>
    <li>Represented the college cricket team</li>
  </ul>

  <h4>Awards</h4>
  <ul>
    <li>Won the 2nd best project in Computer Science in
      → 12th grade.</li>
    <li>Stood school 3rd in Chemistry in
      → 12th grade.</li>
  </ul>
```

```
</ul>
```

---

## HTML Code (workexperience.html)

```
<h1>Work Experience</h1>
    <h4>Machine Learning Intern, MAD STREET DEN, Chennai</h4>
        <ul>
            <li><b>Duration : March 2021 - Present</b></li>
            <li>Worked in clustering of catalogue items using Artificial
                ↳ Neural Networks.</li>
        </ul>

    <h4>Undergraduate Research Assistant, SOLARILLION FOUNDATION, Chennai</h4>
        <ul>
            <li><b>Duration : February 2020 - Present</b></li>
            <li>Research on sign language translation.</li>
        </ul>

    <h4>Freelance Projects</h4>
        <ul>
            <li><b>Duration : October 2020 - Present</b></li>
            <li>Undertook projects via Freelancer.com.</li>
            <li>Classification of ICD Code using state of art Transformer
                ↳ Model.</li>
            <li>Malware Detection using Deep Learning and Artificial
                ↳ Neural Networks.</li>
            <li>Arabic Tweet Rumor Detection using NLP and LSTMs.</li>
        </ul>
    <h4>ML / AI Intern, APPCILIOUS PVT LTD, Bangalore</h4>
        <ul>
            <li><b>Duration : August 2020 - September 2020</b></li>
            <li>Data preprocessing, data cleaning.</li>
            <li>Developed a chat bot using modern NLP architectures and
                ↳ techniques.</li>
            <li>Feature extraction and feature comparison using SIFT and
                ↳ OpenCV.</li>
        </ul>
    <h4>Summer Intern, PRODIAN INFOTECH PVT LTD, Chennai</h4>
        <ul>
            <li><b>Duration : June 2020 - August 2020</b></li>
            <li>Data preprocessing, data cleaning of cricket match data
                ↳ and feature analysis.</li>
            <li>Applying Unsupervised ML Algorithms to get the top 5
                ↳ features that affect a cricket match.</li>
        </ul>
```

---

## HTML Code (projects.html)

```
<h1>Projects</h1>
    <h4>Clickbait Classification</h4>
        <ul>
            <li>Done in <b>August 2020</b></li>
            <li><a
                ↳ href="https://github.com/MBadriNarayanan/ClickbaitClassification"
                ↳ target="_blank">Git Hub Link</a></li>
            <li>Classifying clickbaits using modern NLP techniques and
                ↳ architectures.</li>
        </ul>
```

```

<h4>Object Detection Using YOLO v3</h4>
    <ul>
        <li>Done in <b>August 2020</b></li>
        <li><a
            ↳ href="https://github.com/MBadriNarayanan/ObjectDetectionUsingYOLOv3"
            ↳ target="_blank">Git Hub Link</a></li>
        <li>Object detection using YOLO v3 Algorithm with custom
            ↳ dataset.</li>
    </ul>

<h4>Machine Translator</h4>
    <ul>
        <li>Done in <b>August 2020</b></li>
        <li><a
            ↳ href="https://github.com/MBadriNarayanan/MachineTranslation"
            ↳ target="_blank">Git Hub Link</a></li>
        <li>English to French neural machine translator built using
            ↳ Transformer architecture in NLP.</li>
    </ul>

<h4>Object Detection Using YOLO v3</h4>
<ul>
    <li>Done in <b>February 2020 - April 2020</b></li>
    <li><a href="https://github.com/MBadriNarayanan/FlightDelayPrediction"
        ↳ target="_blank">Git Hub Link</a></li>
    <li>Developed a two stage machine learning model to predict if flights
        ↳ will be delayed upon arrival and if so, the delay in minutes based
        ↳ on the weather data at departure.</li>
</ul>

```

---

## HTML Code (animation.html)

```

<script
    ↳ src="https://ajax.googleapis.com/ajax/libs/angularjs/1.6.9/angular.min.js"></script>
<script
    ↳ src="https://ajax.googleapis.com/ajax/libs/angularjs/1.6.9/angular-animate.js"></script>
<body ng-app="ngAnimate">

    <h2>Click the check box to view the animation<input type="checkbox"
    ↳ ng-model="myCheck"></h2>
    <div ng-hide="myCheck">
        <h3>Profile</h3>
            <img src = "Profile.png" alt = "My Profile Picture"
                ↳ usemap="#profile" height = "400" width = "400"></img><br>
        <h3>Languages</h3>
            <ul>
                <li>English</li>
                <li>Tamil</li>
                <li>Hindi</li>
                <li>Sanskrit</li>
            </ul>

        <h3>Achievements</h3>
            <ul>
                <li>Stood school 3rd in Chemistry in 12th
                    ↳ standard.</li>
                <li>Won the 2nd best project in Computer Science in
                    ↳ 12th standard.</li>
            </ul>
    </div>

```

```
        </ul>
    </div>
</body>
```

---

## CSS Code

```
body
{
    background-color: linen;
}
form
{
    text-align: center;
}
main.ng-enter
{
    transition: 0.5s linear all;
    opacity: 0;
}

main.ng-enter.ng-enter-active
{
    opacity: 1;
}
.nav
{
    position: fixed;
    margin-top: 0px;
    width: 101%;
    height: 70px;
    background-color: #00303f;
    margin-left: -8px;
    padding-right: -20px;
    margin-top: -10px;
    z-index: 1;
    top: 0;
}
#title
{
    display: inline;
    float: left;
    margin-bottom: 1px;
    padding-left: 5px;
    color: white;
}
nav li
{
    list-style-type: none;
}
#nav1 a
{
    text-decoration: none;
    color: white;
    position: relative;
    float: right;
    display: inline-block;
    width: 130px;
```

```

        height: 68px;
        top: -15px;
        bottom: -10px;
        left: -19px;
    }
.tile1
{
    position: absolute;
    top: 25px;
    left: 40px;
}
#nav1 a:hover
{
    background-color: #b67171;
    transition: background-color 0.5s ease-in-out;
    transition-timing-function: ease;
}
ul
{
    background-color: lightblue;
    width: 20%;
    padding: 25px;
}
.header
{
    background-color: rgb(255, 253, 208);
    padding: 20px;
    text-align: center;
}
#animated_div
{
    width:70px;
    height:47px;
    background: #92B901;
    color: white;
    position: relative;
    font-weight:bold;
    font-size:20px;
    padding:10px;
    animation: animated_div 5s 1;
    -moz-animation: animated_div 5s 1;
    -webkit-animation: animated_div 5s 1;
    -o-animation: animated_div 5s 1;
    border-radius:5px;
    -webkit-border-radius:5px;
}
@keyframes animated_div
{
    0% {transform: rotate(0deg);left:0px;}
    25% {transform: rotate(20deg);left:0px;}
    50% {transform: rotate(0deg);left:500px;}
    55% {transform: rotate(0deg);left:500px;}
    70% {transform: rotate(0deg);left:500px;background:#1ec7e6;}
    100% {transform: rotate(-360deg);left:0px;}
}
@-webkit-keyframes animated_div
{
    0% {-webkit-transform: rotate(0deg);left:0px;}

```

```
25% {-webkit-transform: rotate(20deg);left:0px;}  
50% {-webkit-transform: rotate(0deg);left:500px;}  
55% {-webkit-transform: rotate(0deg);left:500px;}  
70% {-webkit-transform: rotate(0deg);left:500px;background:#1ec7e6;}  
100% {-webkit-transform: rotate(-360deg);left:0px;}  
}  
  
@-moz-keyframes animated_div  
{  
0% {-moz-transform: rotate(0deg);left:0px;}  
25% {-moz-transform: rotate(20deg);left:0px;}  
50% {-moz-transform: rotate(0deg);left:500px;}  
55% {-moz-transform: rotate(0deg);left:500px;}  
70% {-moz-transform: rotate(0deg);left:500px;background:#1ec7e6;}  
100% {-moz-transform: rotate(-360deg);left:0px;}  
}  
  
@-o-keyframes animated_div  
{  
0% {transform: rotate(0deg);left:0px;}  
25% {transform: rotate(20deg);left:0px;}  
50% {transform: rotate(0deg);left:500px;}  
55% {transform: rotate(0deg);left:500px;}  
70% {transform: rotate(0deg);left:500px;background:#1ec7e6;}  
100% {transform: rotate(-360deg);left:0px;}  
}
```

---

---

## PHP Code (action.php)

```
<?php
    $con = mysqli_connect('localhost:3306','root','','portfolio');
    $title = $_POST['title'];
    $firstname = $_POST['firstname'];
    $lastname = $_POST['lastname'];
    $mobilenumber = $_POST['mobilenumber'];
    $emailid = $_POST['emailid'];
    $message = $_POST['message'];
    $sql = "INSERT INTO
        `portfolio`(`TITLE`, `FIRSTNAME`, `LASTNAME`, `PHONENUMBER`, `EMAIL`, `MESSAGE`)
        VALUES
        ('$title','$firstname','$lastname','$mobilenumber','$emailid','$message')";
    $rs = mysqli_query($con, $sql);
    if($rs)
    {
        echo "Records Inserted";
    }
?>
```

---

## PHP Code (display.php)

```
<?php
$host      = "localhost:3306";
$user      = "root";
$pass      = "";
$db_name   = "portfolio";

//create connection
$connection = mysqli_connect($host, $user, $pass, $db_name);

//test if connection failed
if(mysqli_connect_errno())
{
    die("connection failed: "
        . mysqli_connect_error()
        . " (" . mysqli_connect_errno()
        . ")");
}

//get results from database
$result = mysqli_query($connection,"SELECT * FROM portfolio");
$array_property = array(); //declare an array for saving property

//showing property
echo '<table border cellpadding="5" class="data-table">
    <tr class="data-heading">'; //initialize table tag
while ($property = mysqli_fetch_field($result))
{
    echo '<td>' . $property->name . '</td>'; //get field name for header
    array_push($array_property, $property->name); //save those to array
}
echo '</tr>'; //end tr tag

//showing all data
while ($row = mysqli_fetch_array($result))
```

```

{
    echo "<tr>";
    foreach ($all_property as $item)
    {
        echo '<td>' . $row[$item] . '</td>'; //get items using property value
    }
    echo '</tr>';
}
echo "</table>";
?>

```

---

## Output

Figure 51: Output Pic1

The screenshot shows a resume website with a dark header bar containing the name "M Badri Narayanan". Below the header, there is a navigation bar with links: About, Education, Work Experience, Projects, Contact Form, and Animation. The main content area starts with a section titled "About" which contains a brief bio. Below that is a "My Social Networking Sites" section with links to GitHub and LinkedIn. A "My Skills" section lists programming languages (Python, C, C++, LATEX), web development (HTML5, CSS3, JavaScript), and software/tools (Git, TensorFlow, Keras, PyTorch, scikit, NLTK, spaCy, OpenCV). The background of the page has a light gradient.

Figure 52: Output Pic2

This screenshot shows the same resume website as Figure 51, but with different content visible. It includes a "My Education Details" section with a table showing three rows of information: SSN College of Engineering (Grade: BTech Information Technology, Marks Obtained: Current GPA: 8.828 (V Semester)), Vidyamandir Senior Secondary School (Grade: 12<sup>th</sup> Grade, Computer Science Group, Marks: 94.4 %), and Vidyamandir Senior Secondary School (Grade: 10<sup>th</sup> Grade, Marks: 8.8). Below this is an "Extra Curricular" section with a list of activities: volunteering with Chennai Volunteers to teach spoken English classes for Tamil medium students, captaining the school cricket team, and representing the college cricket team. At the bottom is an "Awards" section with a list: winning the 2<sup>nd</sup> best project in Computer Science in 12<sup>th</sup> grade and standing 3<sup>rd</sup> in Chemistry in 12<sup>th</sup> grade.

Figure 53: Output Pic3

**M Badri Narayanan**

**Work Experience**

**Machine Learning Intern, MAD STREET DEN, Chennai**

- Duration : March 2021 - Present
- Worked in clustering of catalogue items using Artificial Neural Networks.

**Undergraduate Research Assistant, SOLARILLION FOUNDATION, Chennai**

- Duration : February 2020 - Present
- Research on sign language translation.

**Freelance Projects**

- Duration : October 2020 - Present
- Undertook projects via Freelancer.com.
- Classification of ICD Code using state of art Transformer Model.
- Malware Detection using Deep Learning and Artificial Neural Networks.
- Arabic Tweet Rumor Detection using NLP and LSTMs.

**ML / AI Intern, APPCILIOUS PVT LTD, Bangalore**

- Duration : August 2020 - September 2020
- Data preprocessing, data cleaning.
- Developed a chat bot using modern NLP architectures and techniques.

Figure 54: Output Pic4

**M Badri Narayanan**

**Projects**

**Clickbait Classification**

- Done in August 2020
- [GitHub Link](#)
- Classifying clickbaits using modern NLP techniques and architectures.

**Object Detection Using YOLO v3**

- Done in August 2020
- [GitHub Link](#)
- Object detection using YOLO v3 Algorithm with custom dataset.

**Machine Translator**

- Done in August 2020
- [GitHub Link](#)
- English to French neural machine translator built using Transformer architecture in NLP.

**Object Detection Using YOLO v3**

- Done in February 2020 - April 2020
- [GitHub Link](#)
- Developed a two stage machine learning model to predict if flights will be delayed upon arrival and if so, the delay in minutes based on the weather data at

Figure 55: Output Pic5

**M Badri Narayanan**

[About](#) [Education](#) [Work Experience](#) [Projects](#) [Contact Form](#) [Animation](#)

**Freelance Projects**

- Duration : February 2020 - Present
  - Research on sign language translation.

**ML / AI Intern, APPCILIOUS PVT LTD, Bangalore**

- Duration : October 2020 - Present
  - Undertook projects via Freelancer.com.
  - Classification of ICD Code using state of art Transformer Model.
  - Malware Detection using Deep Learning and Artificial Neural Networks.
  - Arabic Tweet Rumor Detection using NLP and LSTMs.

**Summer Intern, PRODIAN INFOTECH PVT LTD, Chennai**

- Duration : August 2020 - September 2020
  - Data preprocessing, data cleansing of cricket match data and feature analysis.
  - Developed a chat bot using modern NLP architectures and techniques.
  - Feature extraction and feature comparison using SIFT and OpenCV.

Figure 56: Output Pic6

**M Badri Narayanan**

[About](#) [Education](#) [Work Experience](#) [Projects](#) [Contact Form](#) [Animation](#)

**Contact Form**

Title  
Mr

First Name  
John

Last Name  
Doe

Phone Number  
8220584258

Email  
johndoe@gmail.com

Subject  
Very good website !!

Figure 57: Output Pic7

M Badri Narayanan

About Education Work Experience Projects Contact Form Animation

### Contact Form

Title  
Mrs

First Name  
Jane

Last Name  
Doe

Phone Number  
1234567890

Email  
janedoe@gmail.com

Subject  
Create website !!

Figure 58: Output Pic8

M Badri Narayanan

About Education Work Experience Projects Contact Form Animation

Click the check box to view the animation

Profile



Languages

- English
- Tamil
- Hindi
- Sanskrit

Figure 59: Output Pic9

M Badri Narayanan

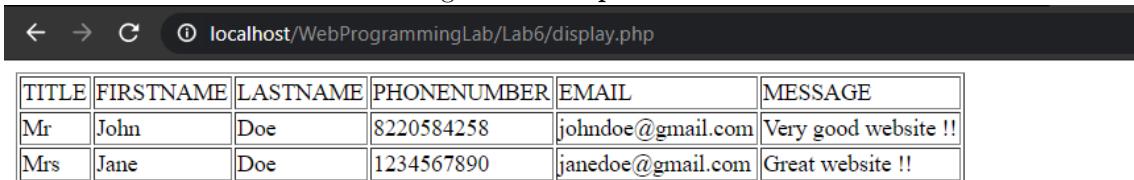
About Education Work Experience Projects Contact Form Animation

Click the check box to view the animation

Figure 60: Output Pic10



Figure 61: Output Pic11



A screenshot of a web browser window. The address bar shows the URL "localhost/WebProgrammingLab/Lab6/display.php". The main content area displays a table with six columns: TITLE, FIRSTNAME, LASTNAME, PHONENUMBER, EMAIL, and MESSAGE. There are two rows of data:

TITLE	FIRSTNAME	LASTNAME	PHONENUMBER	EMAIL	MESSAGE
Mr	John	Doe	8220584258	johndoe@gmail.com	Very good website !!
Mrs	Jane	Doe	1234567890	janedoe@gmail.com	Great website !!

---

## Result

Hence a form is created with real time updations using Angular JS.

---

---

## Video Player using Angular JS

<b>Name:</b> M Badri Narayanan
<b>Reg No:</b> 185002018
<b>Semester:</b> VI
<b>Exercise Number:</b> 7
<b>Date:</b> April 6, 2021

---

### Aim

To create a video player using AngularJS.

---

### Procedure

- Include the styles required in the body tag.
  - Include the **ng-app** and **ng-controller** for the angular components.
  - Use the **<video>** tag to include the video.
  - Create different buttons for play, pause, mute, and to vary the speed of the video.
  - Call the respective JS functions of the buttons.
- 

### Code

```
<!DOCTYPE html>
<html>
    <head>

        <meta charset="UTF-8">
        <meta name="description" content="Portfolio Web Page">
        <meta name="keywords" content="HTML5, CSS3, JavaScript">
        <meta name="author" content="M Badri Narayanan">
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
            <title>Video Player</title>
        <link rel="icon" type="image/x-icon" href="images/favicon.ico" />
        <script
            ↵ src="https://ajax.googleapis.com/ajax/libs/angularjs/1.6.9/angular.min.js"></scr
        <script
            ↵ src="https://cdnjs.cloudflare.com/ajax/libs/angular.js/1.8.2/angular.js"></scrip
        <script src="https://kit.fontawesome.com/2d6fc4f13c.js"
            ↵ crossorigin="anonymous"></script>

    </head>
    <body>
        <div style="display: flex; flex-flow: column; align-items:
            ↵ center;" ng-app = "myApp" ng-controller = "myCtrl">
            <video ng-click = "count = count+1;toggle(count);">
                ↵ style="width: 500px; height: 400px;" id="myVideo">
                    <source id="mp4_src" src="Video.mp4"
                        ↵ type="video/mp4">
```

```

        </video>

        <div>
            <button id = "play" ng-click="playVid()" type="button"><i class="fas fa-play fa-2x"></i></button>
            <button ng-click="pauseVid()" type="button"><i class="fas fa-pause fa-2x"></i></button>
            <button ng-click="rate(+0.5)" type="button"><i class="fas fa-fast-forward fa-2x"></i></button>
            <button ng-click="rate(-0.5)" type="button"><i class="fas fa-fast-backward fa-2x"></i></button>
            <button ng-click="forwardVid(10)" type="button"><i class="fas fa-forward fa-2x"></i></button>
            <button ng-click="rewindVid(10)" type="button"><i class="fas fa-backward fa-2x"></i></button>
            <button ng-click="replay()" type="button"><i class="fas fa-redo fa-2x"></i></button>
            <button ng-click="mute()"><i class="fas fa-volume-mute fa-2x"></i></button>
            <button ng-click="unmute()"> <i class="fas fa-volume-up fa-2x"></i> </button>
        </div>

        </div>

<script>

    var x = document.getElementById("myVideo");
    var app = angular.module('myApp', []);

    app.controller('myCtrl', function ($scope)
    {

        $scope.playVid = function()
        {
            $scope.count = 0;
            x.play();
        }
        $scope.rate = function(y)
        {
            x.playbackRate += y;
        }
        $scope.pauseVid = function()
        {
            $scope.count = 1;
            x.pause();
        }
        $scope.toggle = function(c)
        {
            console.log("hel");
            c = c%2;
            if(c==1) x.pause();
            else x.play();
        }
        $scope.rewindVid = function(time)

```

```

{
    x.currentTime-=time;
    x.currentTime = max1(x.currentTime,0);
}

$scope.forwardVid = function(time)
{
    x.currentTime+=time;
    x.currentTime =
        ↪ min1(x.currentTime,x.duration);
}
$scope.mute = function()
{
    x.muted = true;
}
$scope.unmute = function()
{
    x.muted = false;
}
min1 = function(x,y)
{
    return x>y?y:x;
}
max1 = function(x,y)
{
    return x>y?x:y;
}

$scope.replay = function()
{
    x.pause();
    x.currentTime = 0;
    $scope.count = 0;
    x.load();
    x.play();
}

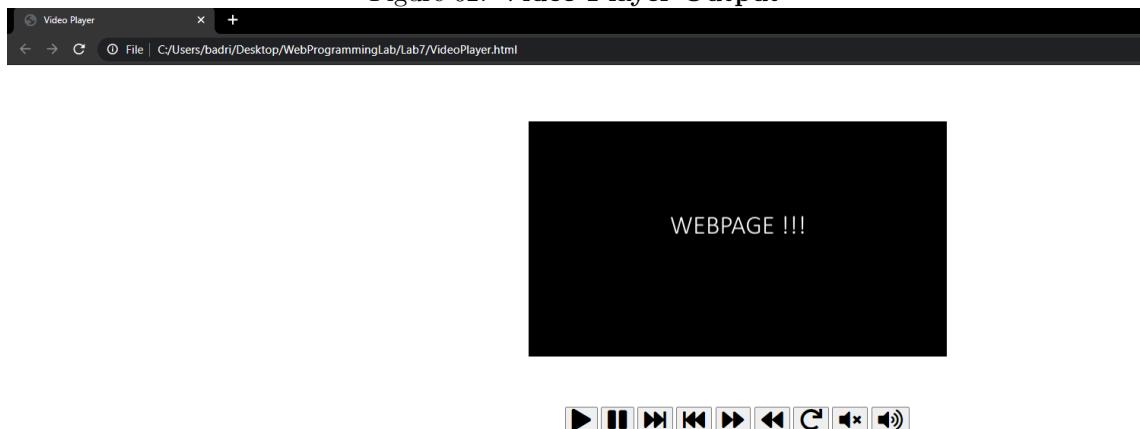
});
</script>
</body>
</html>

```

---

## Output

Figure 62: Video Player Output



---

## Result

Thus the video player was created and the output was verified successfully.

---

---

## Text Editor using Angular JS

<b>Name:</b>	M Badri Narayanan
<b>Reg No:</b>	185002018
<b>Semester:</b>	VI
<b>Exercise Number:</b>	8
<b>Date:</b>	April 6, 2021

---

### Aim

To create a text editor using AngularJS.

---

### Procedure

- Import angular js script.
  - Have options such as cut, copy, paste and new, open, save in a dropdown navigation bar.
  - On clicking these buttons, their respective functions are called angular controller using ng-click.
  - Below this is an area given where text is to be entered.
  - For cut function the string in the text area is copied to the clipboard and replaced by an empty string in the text area.
  - For copy function the string selected is copied in to the clipboard.
  - For paste function the string in the clipboard is pasted on the text area.
  - For save function, the data in the text area is stored as a plaintext file with the provided name.
- 

### Code

```
<!DOCTYPE html>
<html>
<head>
    <title> Text Editor </title>
    <script
        src="https://cdnjs.cloudflare.com/ajax/libs/angular.js/1.8.2/angular.js"></script>
    <style type="text/css">
        .dropbtn
        {
            background-color: #4CAF50;
            color: white;
            padding: 16px;
            font-size: 16px;
            border: none;
            cursor: pointer;
        }
        .dropdown
        {
```

```

        position: relative;
        display: inline-block;
    }

.dropdown-content
{
    display: none;
    position: absolute;
    background-color: #f9f9f9;
    min-width: 160px;
    box-shadow: 0px 8px 16px 0px rgba(0,0,0,0.2);
    z-index: 1;
}

/* Links inside the dropdown */
.dropdown-content a
{
    color: black;
    padding: 12px 16px;
    text-decoration: none;
    display: block;
}

/* Change color of dropdown links on hover */
.dropdown-content a:hover
{
    background-color: #f1f1f1
}

/* Show the dropdown menu on hover */
.dropdown:hover .dropdown-content
{
    display: block;
}

```

</style>

</head>

<body ng-controller = "app" ng-app = "myapp">

```

<div style="display: flex; text-align: center; align-items: center; flex-flow:
  column;">
    <div style="width: 500px">
        <h3> All Files</h3>
    </div>
    <table ng-repeat = "x in list track by $index" >
        <tr> <td style="width: 500px"> <span style="float:left;"> {{ x.fileName }} </span>
            <button style = "float:right" ng-click = "x.show =
              toggle(x.show); x.text = toggle2(x.text); save(); " >
              {{ x.text }} </button>
            <button style = "float:right"
              ng-click="downloadFile(x.fileName, x.data); "
              >Download </button>
            <button style = "float:right" ng-click="open(x.data,
              x.fileName); " >Open</button>
        </td> </tr>
        <tr> <td> <textarea ng-hide = "x.show" style=" height: 300px;
          width: 500px;" ng-model = "x.data" readonly="true">
          </textarea> </td> </tr>
    </table>
    <div style="width: 500px;">

```

```


    <button class="dropbtn">File</button>
    <div class="dropdown-content">
        <a href="#" ng-click = "upload_show=false;
        ↪ newfile_show = true; newFileName ='';
        ↪ newFileData=''">New</a>
        <a href="#" ng-click =
        ↪ "Save(newFileName,newFileData);">Save</a>
        <a href="#" ng-click = "upload_show=true;
        ↪ newfile_show = false;">Upload</a>
    </div>

    </span>
    <span class = "dropdown" style="float: left;">
        <button class="dropbtn">Edit</button>
        <div class="dropdown-content">
            <a href="#" onclick = "cutit()">Cut</a>
            <a href="#" onclick = "copyit()">Copy</a>
            <a href="#" ng-click="pasteit()">Paste</a>
        </div>

    </span>
    <div class = "upload_cont" ng-show = "upload_show">
        <h3> Upload File </h3>
        <table>
            <tr>
                <td>Upload : </td>
                <td><input type="file"
                ↪ id="fileToLoad"></td>
                <td><button ng-click =
                ↪ "loadFileAsText()";
                ↪ "Open"></button></td>
            </tr>
        </table>
    </div>
    <div class ="newFile" ng-show = "newfile_show">
        <h3> Create New File </h3>
        <form>
            <div style="text-align: left;"> File Name :
            ↪ <input ng-model = "newFileName"> </div>
            <br>
            <textarea class="js-cuttextarea" ng-model =
            ↪ "newFileData" style="padding:0px; height:
            ↪ 200px; width: 500px;" placeholder="Enter
            ↪ Text">
            </textarea>
        </form>

        </div>
    </div>
</div>
<script type="text/javascript">

    var cutTextareaBtn = document.querySelector('.js-textareacutbtn');
    function cutit()
    {
        var cutTextarea = document.querySelector('.js-cuttextarea');

        var successful = document.execCommand('cut');
        var msg = successful ? 'successful' : 'unsuccessful';
        console.log('Cutting text command was ' + msg);

```

```

        }
    }

    function copyit()
    {
        var cutTextarea = document.querySelector('.js-cuttextarea');
        var successful = document.execCommand('copy');
        var msg = successful ? 'successful' : 'unsuccessful';
        console.log('Cutting text command was ' + msg);
    }

    angular.module("myapp", []).controller('app', function($scope)
    {
        $scope.list = JSON.parse(localStorage.getItem('Array'));
        if($scope.list==null)
        {
            $scope.list = [];
        }
        $scope.pasteit =  function()
        {
            var cutTextarea =
                ↪ document.querySelector('.js-cuttextarea');
            navigator.clipboard.readText().then(
                ↪ function(clipText)
            {
                prev = "";
                if(cutTextarea.selectionStart!=0)
                    prev =
                        ↪ cutTextarea.value.substring(0,
                        ↪ cutTextarea.selectionStart);
                next = "";

                ↪ if(cutTextarea.selectionEnd!=cutTextarea.value.length)
                    next =
                        ↪ cutTextarea.value.substring(cutTextarea.selectionStart,
                        ↪ cutTextarea.value.length);
                console.log(prev+ clipText +next);
                console.log("Clip :" + clipText);
                cutTextarea.value = prev + clipText + next;
                $scope.newFileData = cutTextarea.value;
                $scope.$apply();
            });
        }
        $scope.loadFileAsText = function()
        {
            let fileToLoad =
                ↪ document.getElementById("fileToLoad").files[0];
            let fileReader = new FileReader();
            let new_obj =
            {
                fileName : fileToLoad.name,
                data :"",
                show : true,
                text : "Show"
            };
            fileReader.onload = function(fileLoadedEvent)
            {
                let textFromFileLoaded =
                    ↪ fileLoadedEvent.target.result;
                new_obj.data = textFromFileLoaded;
                $scope.upload_show = false;
                $scope.newfile_show = true;
            }
        }
    })
}

```

```

        $scope.newFileData = new_obj.data;
        $scope.newFileName = new_obj.fileName;
        $scope.$apply();
        console.log(new_obj);
    };
    fileReader.readAsText(fileToLoad, "UTF-8");
}
$scope.Save = function(fileName, fileData)
{
    if(fileName==null)
    {
        alert("Enter File Name");
        return false;
    }
    let new_obj =
    {
        fileName : fileName,
        data : fileData,
        show : true,
        text : "Show"
    };
    $scope.list.push(new_obj);
    save();
    $scope.$apply();
}

}
$scope.open = function(fileName,data)
{
    $scope.upload_show = false;
    $scope.newfile_show = true;

    $scope.newFileData = fileName;
    $scope.newFileName = data;
}
$scope.downloadFile = function(fileName,data)
{

    var textToSendAsBlob = new Blob([data],
    {type:"text/plain"});
    var textToSendAsURL =
    window.URL.createObjectURL(textToSendAsBlob);
    var fileNameToSendAs = fileName;
    var downloadLink = document.createElement("a");
    downloadLink.download = fileNameToSendAs;
    downloadLink.innerHTML = "Download File";
    downloadLink.href = textToSendAsURL;
    downloadLink.style.display = "none";
    downloadLink.click();
}
$scope.save = function()
{
    localStorage.setItem("Array",
    JSON.stringify($scope.list));
}
save = function()
{
    localStorage.setItem("Array",
    JSON.stringify($scope.list));
}
$scope.toggle = function(x)
{

```

```

                    return (x^true);
    }
$scope.toggle2 = function(x)
{
    if(x==='Show') return 'Hide';
    else return 'Show';

}
})
</script>
</body>
</html>

```

---

## Output

Figure 63: Text Editor Output

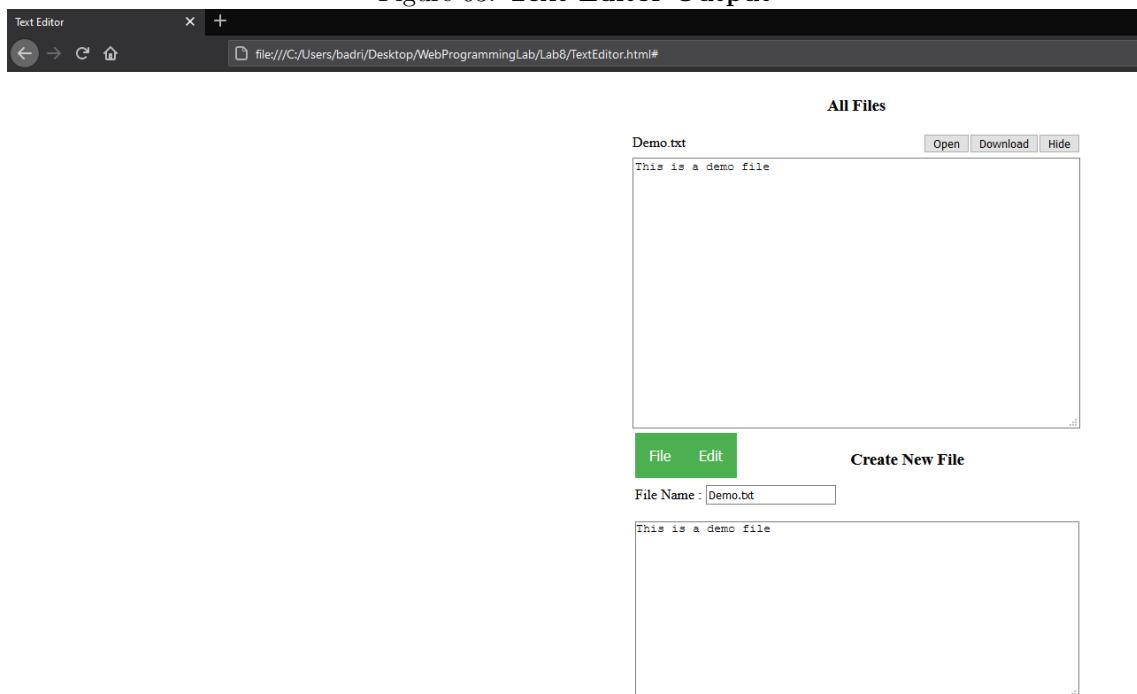


Figure 64: Text Editor Output

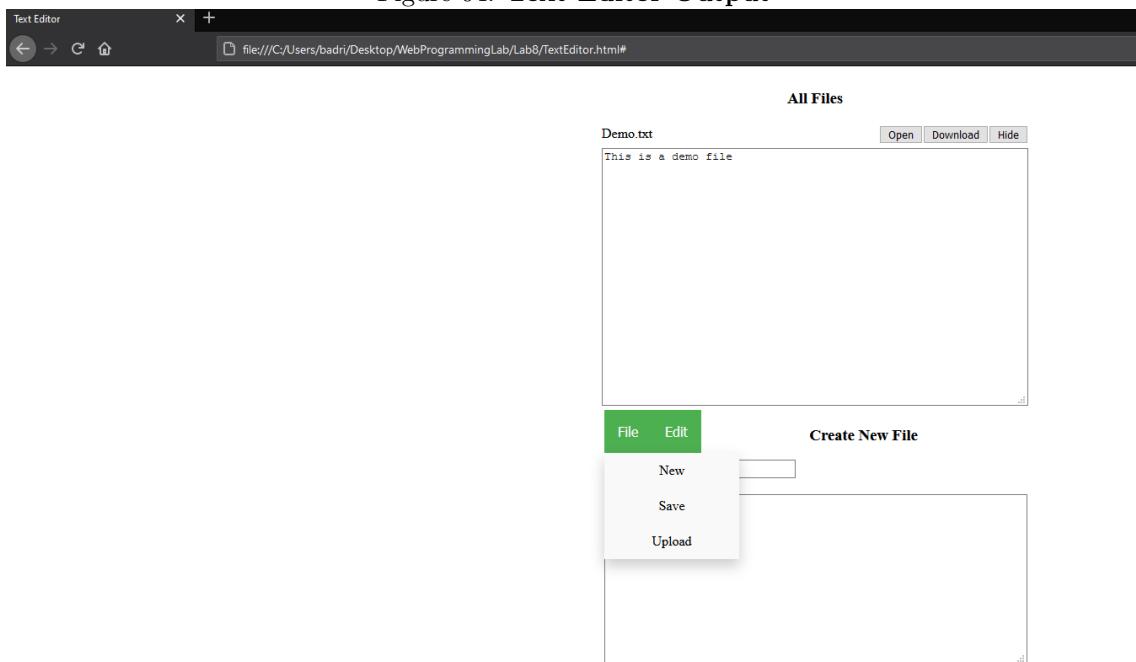
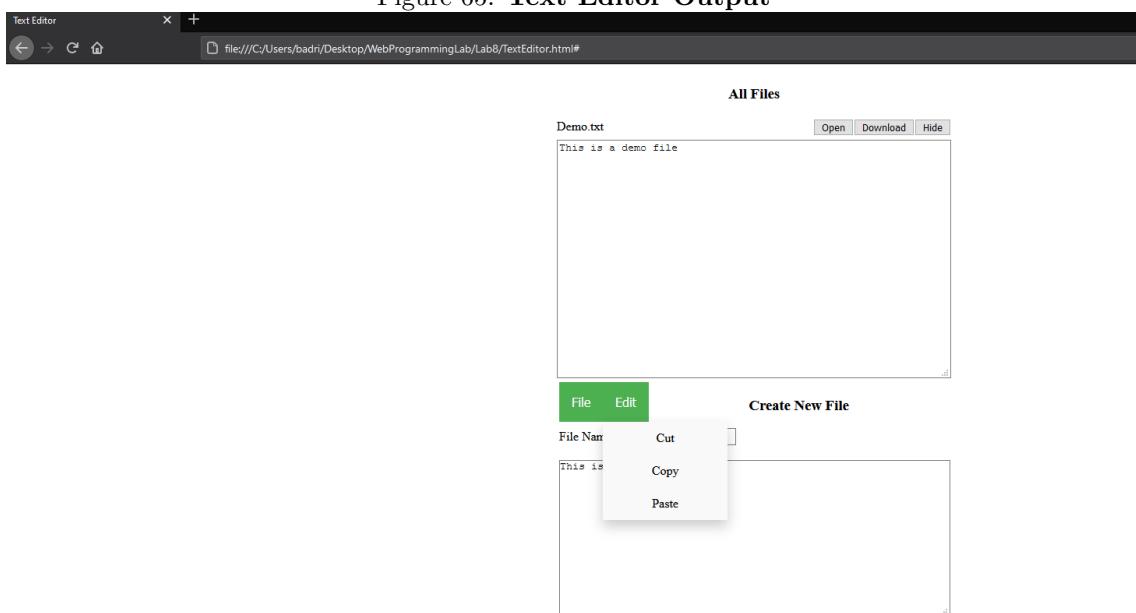


Figure 65: Text Editor Output



---

## Result

Thus the text editor was created and the output was verified successfully.

---

---

## Dynamic website using Node JS and Express

<b>Name:</b>	M Badri Narayanan
<b>Reg No:</b>	185002018
<b>Semester:</b>	VI
<b>Exercise Number:</b>	9
<b>Date:</b>	April 13, 2021

---

### Aim

To create a dynamic backend application using NodeJS, Express and MongoDB using javascript.

---

### Procedure

- Initially, we have to create a Mongo Database. To create a database in MongoDB using javascript, start by creating a MongoClient object, then specify a connection URL with the correct IP address and the name of the database you want to create.
  - MongoDB will create the database if it does not exist, and make a connection to it.
  - Then create a collection using the **createCollection()** method.
  - To insert a record, or document as it is called in MongoDB, into a collection, we use the **insertOne()** method.
  - To insert multiple records use **insertMany()** method. The first parameter of the **insertMany()** method is an array of objects, containing the data you want to insert.
  - Sort() method can be used along **toArray()** function to sort the records based on a parameter as well as view the records.
  - To delete a record, or document as it is called in MongoDB, we use the **deleteOne()** method.
  - The first parameter of the **deleteOne()** method is a query object defining which document to delete.
  - To update a record, or document as it is called in MongoDB, we use the **updateOne()** method.
  - The first parameter of the **updateOne()** method is a query object defining which document to update.
  - To get the data from the user we use the **prompt()** command.
-

---

## Functions Used

```
const prompt = require('prompt');

prompt.start();

prompt.get([Collection_Schema_1, Collection_Schema_2], function (err, result)
{

});

MongoClient.connect("Database URL", {useUnifiedTopology: true}, function(err, db)
{

dbo.createCollection("Collection Name", function(err, res)
{
});

var dbo = db.db("Database Name");
dbo.collection("Collection Name").drop(function(err, delOK)
{
});

var dbo = db.db("Database Name");
var myobj = {Collection_Schema_1: Variable_To_Be_Inserted_1, Collection_Schema_2:
↪ Variable_To_Be_Inserted_2};
dbo.collection("Collection Name").insertOne(myobj, function(err, res)
{

});

var dbo = db.db("Database Name");
var myquery = {Collection_Schema: Variable_To_Be_Deleted};
dbo.collection("Collection Name").deleteOne(myquery, function(err, obj)
{

});

var dbo = db.db("Database Name");
dbo.collection("Collection Name").find({}).toArray(function(err, result)
{

});

var dbo = db.db("Database Name");
var myquery = {Collection_Schema : Variable_To_Be_Updated};
var newvalues = { $set: {Collection_Schema_1: New_Variable_1, Collection_Schema_2 :
↪ New_Variable_2}};
dbo.collection("Collection Name").updateOne(myquery, newvalues, function(err, res)
{

});
```

---

## Create Database Code

```
var MongoClient = require('mongodb').MongoClient;
var url = "mongodb://localhost:27017/webprogramming";

MongoClient.connect(url, {useUnifiedTopology: true}, function(err, db)
{
  if (err) throw err;
  console.log("Database created!");
  db.close();
});
```

---

## Create Collection Code

```
var MongoClient = require('mongodb').MongoClient;
var url = "mongodb://localhost:27017/";

MongoClient.connect(url, {useUnifiedTopology: true}, function(err, db)
{
  if (err) throw err;
  var dbo = db.db("webprogramming");
  dbo.createCollection("webprogramming", function(err, res)
  {
    if (err) throw err;
    console.log("Collection created!");
    db.close();
  });
});
```

---

## Insertion Code

```
const prompt = require('prompt');

prompt.start();

prompt.get(['name', 'phonenumber'], function (err, result)
{
  if (err) { return onErr(err); }
  console.log('\n Data to be inserted \n');
  console.log(' Name: ' + result.name);
  console.log(' Phone Number: ' + result.phonenumber);
  name = result.name;
  phonenumber = result.phonenumber;
  var MongoClient = require('mongodb').MongoClient;
  var url = "mongodb://localhost:27017/";
  MongoClient.connect(url, {useUnifiedTopology: true}, function(err, db)
  {
    if (err) throw err;
    var dbo = db.db("webprogramming");
    var myobj = { name: name, phonenumber: phonenumber};
    dbo.collection("webprogramming").insertOne(myobj, function(err, res)
    {
      if (err) throw err;
      console.log("1 document inserted");
      db.close();
    });
  });
});
```

```
});  
});
```

---

## Display Code

```
var MongoClient = require('mongodb').MongoClient;  
var url = "mongodb://localhost:27017/";  
  
MongoClient.connect(url, {useUnifiedTopology: true}, function(err, db)  
{  
    if (err) throw err;  
    var dbo = db.db("webprogramming");  
    dbo.collection("webprogramming").find({}).toArray(function(err, result)  
    {  
        if (err) throw err;  
        console.log(result);  
        db.close();  
    });  
});
```

---

## Update Code

```
const prompt = require('prompt');  
  
prompt.start();  
  
prompt.get(['name', 'newname', 'newphonenumbers'], function (err, result)  
{  
    if (err) { return onErr(err); }  
    console.log('\n Name to be changed \n');  
    console.log(' Name: ' + result.name);  
    console.log(' Changed Name: ' + result.newname);  
    console.log(' Changed Number: ' + result.newphonenumbers);  
    name = result.name;  
    newname = result.newname;  
    newphonenumbers = result.newphonenumbers;  
    var MongoClient = require('mongodb').MongoClient;  
    var url = "mongodb://localhost:27017/";  
    MongoClient.connect(url, {useUnifiedTopology: true}, function(err, db)  
    {  
        if (err) throw err;  
        var dbo = db.db("webprogramming");  
        var myquery = {name : name};  
        var newvalues = { $set: {name: newname, phonenumbers :  
            newphonenumbers}};  
        dbo.collection("webprogramming").updateOne(myquery, newvalues,  
            function(err, res)  
        {  
            if (err) throw err;  
            console.log("1 document updated");  
            db.close();  
        });  
    });  
});
```

---

## Deletion Code

```
const prompt = require('prompt');

prompt.start();

prompt.get(['name'], function (err, result)
{
    if (err) { return onErr(err); }
    console.log('\n Name to be deleted \n');
    console.log(' Name: ' + result.name);
    name = result.name;
    var MongoClient = require('mongodb').MongoClient;
    var url = "mongodb://localhost:27017/";
    MongoClient.connect(url, {useUnifiedTopology: true}, function(err, db)
    {
        if (err) throw err;
        var dbo = db.db("webprogramming");
        var myquery = {name: name};
        dbo.collection("webprogramming").deleteOne(myquery, function(err,
            obj)
        {
            if (err) throw err;
            console.log("1 document deleted");
            db.close();
        });
    });
});
```

---

---

## Output

Figure 66: Node JS, Express and Mongo DB Pic1



```
Windows PowerShell      + ->

PS C:\Users\badri\Desktop\WebProgrammingLab\Lab9> node create_db.js
Database created!
PS C:\Users\badri\Desktop\WebProgrammingLab\Lab9> node create_collection.js
Collection created!
PS C:\Users\badri\Desktop\WebProgrammingLab\Lab9> node insert.js
prompt: name: Badri

Data to be inserted

Name: Badri
Phone Number: 8220584258
1 document inserted
prompt: name: Aadhi
prompt: phonenumber: 8939820980

Data to be inserted

Name: Aadhi
Phone Number: 8939820980
PS C:\Users\badri\Desktop\WebProgrammingLab\Lab9> node show.js
[
  {
    _id: 608e52303a7bdd3d20f5b341,
    name: 'Badri',
    phonenumber: '8220584258'
  },
  {
    _id: 608e5256e969ae29a8fab1d4,
    name: 'Aadhi',
  }
]
PS C:\Users\badri\Desktop\WebProgrammingLab\Lab9> node delete.js
prompt: name: Aadhi

Name to be deleted

Name: Aadhi
1 document deleted
```

Figure 67: Node JS, Express and Mongo DB Pic2

```
PS C:\Users\badri\Desktop\WebProgrammingLab\Lab9> node show.js
[
  {
    _id: 608e52303a7bdd3d20f5b341,
    name: 'Badri',
    phononenumber: '8220584258'
  }
]
PS C:\Users\badri\Desktop\WebProgrammingLab\Lab9> node update.js
prompt: name: Badri
prompt: newname: MBadri
prompt: newphononenumber: 918220584258

Name to be changed

Name: Badri
Changed Name: MBadri
Changed Number: 918220584258
1 document updated
PS C:\Users\badri\Desktop\WebProgrammingLab\Lab9> node show.js
[
  {
    _id: 608e52303a7bdd3d20f5b341,
    name: 'MBadri',
    phononenumber: '918220584258'
  }
]
PS C:\Users\badri\Desktop\WebProgrammingLab\Lab9> |
```

---

## Result

Hence, a dynamic backend website has been implemented using NodeJS and MongoDB.

---

---

## Simple web application using MEAN Stack

<b>Name:</b>	M Badri Narayanan
<b>Reg No:</b>	185002018
<b>Semester:</b>	VI
<b>Exercise Number:</b>	10
<b>Date:</b>	April 13, 2021

---

### Aim

To design a Simple web application using MEAN Stack.

---

### Procedure

- Create an instance of express framework using Node JS.
  - Include body parser to handling form requests.
  - Connect to MongoDB.
  - Render the angular js form to be validated.
  - Create Angular JS forms.
  - Route the action of the form.
  - Perform Insertion operation using Mongo DB client.
- 

### Angular Code (app.js)

```
const express = require('express');
var bodyParser = require("body-parser");
var mongoose = require("mongoose");

const app=express();

app.listen(3000);

app.use(express.static('public'));

app.use(bodyParser.urlencoded({ extended:true, useNewUrlParser: true,
→ useUnifiedTopology: true}));

mongoose.connect("mongodb+srv://Badri:BadriWebProgrammingLab@cluster0.hn5pf.mongodb.net/WebProgrammi

const account={
  title:String,
  firstname:String,
  lastname:String,
  mobilenumber: String,
  emailid: String,
  message: String
```

```

}

const portfolio = mongoose.model("Portfolio",account);

app.get('/',(req,res)=>{
    res.sendFile('./views/MyWebPage.html',{root:__dirname});
})
app.get('/contact',(req,res)=>{
    res.sendFile('./views/contact.html',{root:__dirname});
})
app.post('/contact',(req,res)=>{
    let newaccount=new portfolio({
        title:req.body.title,
        firstname:req.body.firstname,
        lastname:req.body.lastname,
        mobilenumber: req.body.mobilenumber,
        emailid: req.body.emailid,
        message: req.body.message
    })
    newaccount.save();
    res.redirect('/done');
});
app.get('/done',(req,res)=>{
    res.sendFile('public/insertion.html',{root:__dirname});
})

app.use((req,res)=>{
    res.sendFile('./views/404.html',{root:__dirname});
})

```

---

## HTML Code (MyWebPage.html)

```

<!DOCTYPE>
<html lang = "en">
<head>

    <meta charset="UTF-8">
    <meta name="description" content="Portfolio Web Page">
    <meta name="keywords" content="HTML5, CSS3, JavaScript">
    <meta name="author" content="M Badri Narayanan">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <title>My Web Page</title>
    <link rel="icon" type="image/x-icon" href="images/favicon.ico" />
    <link rel="stylesheet" href=".style.css">

<body>

    <h1 style="text-align:center">M Badri Narayanan</h1>

    <img src = "./Profile.png" alt = "My Profile Picture"
        usemap="#profile" height = "200" width = "200"></img><br>

    <map name="profile">
        <area shape = "rect" coords="0,0,100,100" alt = "My GitHub
        Profile" href="https://github.com/MBadriNarayanan"
        target="_blank">

```

```

        <area shape = "rect" coords="100,100,200,200" alt = "My
        ↵   LinkedIn Profile"
        ↵   href="https://www.linkedin.com/in/mbadrinarayanan"
        ↵   target="_blank">
    </map>

<h3>My Social Networking Sites</h3>
<ol>
    <li><a href="https://github.com/MBadriNarayanan"
    ↵   target="_blank">GitHub</a></li>
    <li><a href="https://www.linkedin.com/in/mbadrinarayanan"
    ↵   target="_blank">LinkedIn</a></li>
</ol>

<h3>Summary</h3>

<p class = "static">I am currently pursuing my bachelors in
    ↵ Information Technology from SSN College of Engineering, Chennai. I
    ↵ am interested in the fields of Machine Learning , Deep Learning,
    ↵ Natural Language Processing, Computer Vision and Data Science.I
    ↵ would like to work in the aforementioned fields and develop real
    ↵ world solutions. I am also an avid sports fan and my hobbies
    ↵ include playing cricket, listening to music, watching movies and
    ↵ reading books.</p>

<a href = "#EducationDetails">My Education Details</a><br>
<a href = "#ExtraCurricular">Extra Curricular</a><br>
<a href = "#Awards">Awards</a><br>
<a href = "#Contact">Contact Form</a><br>

<a name = "EducationDetails"></a>
<h4>My Education Details</h4>
<table border="1" align="left" width="40%">
    <tr><td>College / School</td><td>Grade</td><td>Marks
    ↵   Obtained</td></tr>
    <tr><td>SSN College of Engineering, Chennai</td><td>BTech
    ↵   Information Technology</td><td>Current GPA : 8.828 (V
    ↵   Semester)</td></tr>
    <tr><td>Vidya Mandir Senior Secondary School,
    ↵   Chennai</td><td>12th</sup> Grade, Computer Science
    ↵   Group</td><td>94.4 %</td></tr>
    <tr><td>Vidya Mandir Senior Secondary School,
    ↵   Chennai</td><td>10th</sup>
    ↵   Grade</td><td>8.8</td></tr>
</table>

<a name = "ExtraCurricular"></a>
<h4>Extra Curricular</h4>
<ul>
    <li>Volunteering with Chennai Volunteers to teach spoken
    ↵   English classes for Tamil medium students.</li>
    <li>Captained the school cricket team</li>
    <li>Represented the college cricket team</li>
</ul>

<a name = "Awards"></a>
<h4>Awards</h4>
<ul>
    <li>Won the 2nd best project in Computer Science in
    ↵   12th grade.</li>

```

```

        <li>Stood school 3rd in Chemistry in
        ↵ 12th grade.</li>
    </ul>

    <a name = "Contact"></a>
    <h2>Contact Form</h2>
    <a href = "/contact" target="_blank">Click here to view the contact
    ↵ form.</a>
</body>
</html>

```

---

## HTML Code (contact.html)

```

<style>
body
{
    font-family: Arial, Helvetica, sans-serif;
}
*
{
    box-sizing: border-box;
}

input[type=text], select, textarea
{
    width: 100%;
    padding: 12px;
    border: 1px solid #ccc;
    border-radius: 4px;
    box-sizing: border-box;
    margin-top: 6px;
    margin-bottom: 16px;
    resize: vertical;
}

input[type=tel], select, textarea
{
    width: 100%;
    padding: 12px;
    border: 1px solid #ccc;
    border-radius: 4px;
    box-sizing: border-box;
    margin-top: 6px;
    margin-bottom: 16px;
    resize: vertical;
}

input[type=email], select, textarea
{
    width: 100%;
    padding: 12px;
    border: 1px solid #ccc;
    border-radius: 4px;
    box-sizing: border-box;
    margin-top: 6px;
    margin-bottom: 16px;
    resize: vertical;
}

```

```

input[type=submit]
{
    background-color: #4CAF50;
    color: white;
    padding: 12px 20px;
    border: none;
    border-radius: 4px;
    cursor: pointer;
}

input[type=submit]:hover
{
    background-color: #45a049;
}

.container
{
    border-radius: 5px;
    background-color: #f2f2f2;
    padding: 20px;
}
</style>
<script
    ↪ src="https://ajax.googleapis.com/ajax/libs/angularjs/1.6.9/angular.min.js"></script>
<h2 style="text-align: center;">Contact Form</h2>
<div ng-app="">
    <div class="container">
        <form action="" method="post">
            <label for = "desc">Title</label>
            <input type = "text" name = "title" placeholder = "Mr" pattern =
                ↪ "^[a-zA-Z\s]*$" required ng-model="title">
            <h3>You Entered: {{title}}</h3><br><br>
            <label for = "fname">First Name</label>
            <input type = "text" name = "firstname" placeholder = "John"
                ↪ pattern = "^[a-zA-Z\s]*$" required ng-model="firstname">
            <h3>You Entered: {{firstname}}</h3><br><br>
            <label for = "lname">Last Name</label>
            <input type = "text" name = "lastname" placeholder = "Doe" pattern =
                ↪ "^[a-zA-Z\s]*$" required ng-model="lastname">
            <h3>You Entered: {{lastname}}</h3><br><br>
            <label for = "mobile">Phone Number</label><br>
            <input type = "tel" name = "mobilenumber" placeholder =
                ↪ "9876543210" pattern="[0-9]{10}" required
                ↪ ng-model="mobilenumber">
            <h3>You Entered: {{mobilenumber}}</h3><br><br>
            <label for = "email">Email</label><br>
            <input type = "email" name = "emailid" placeholder =
                ↪ "johndoe@xyz.com" pattern =
                ↪ "[a-z0-9._%+-]+@[a-z0-9.-]+\.[a-z]{2,}$$" required
                ↪ ng-model="emailid">
            <h3>You Entered: {{emailid}}</h3><br><br>
            <label for="subject">Subject</label>
            <textarea name = "message" placeholder = "Write your message...">
                ↪ style = "height:200px" required ng-model="message"></textarea>
            <h3>You Entered: {{message}}</h3><br><br>
            <button type="submit" name="submit" value="Submit">Submit</button>
        </form>
    </div>
</div>

```

---

---

## HTML Code (insertion.html)

```
<h1>Record Inserted !!</h1>
```

---

## HTML Code (404.html)

```
<h1>404 Error !!</h1>
```

---

## Output

Figure 68: Output Pic1

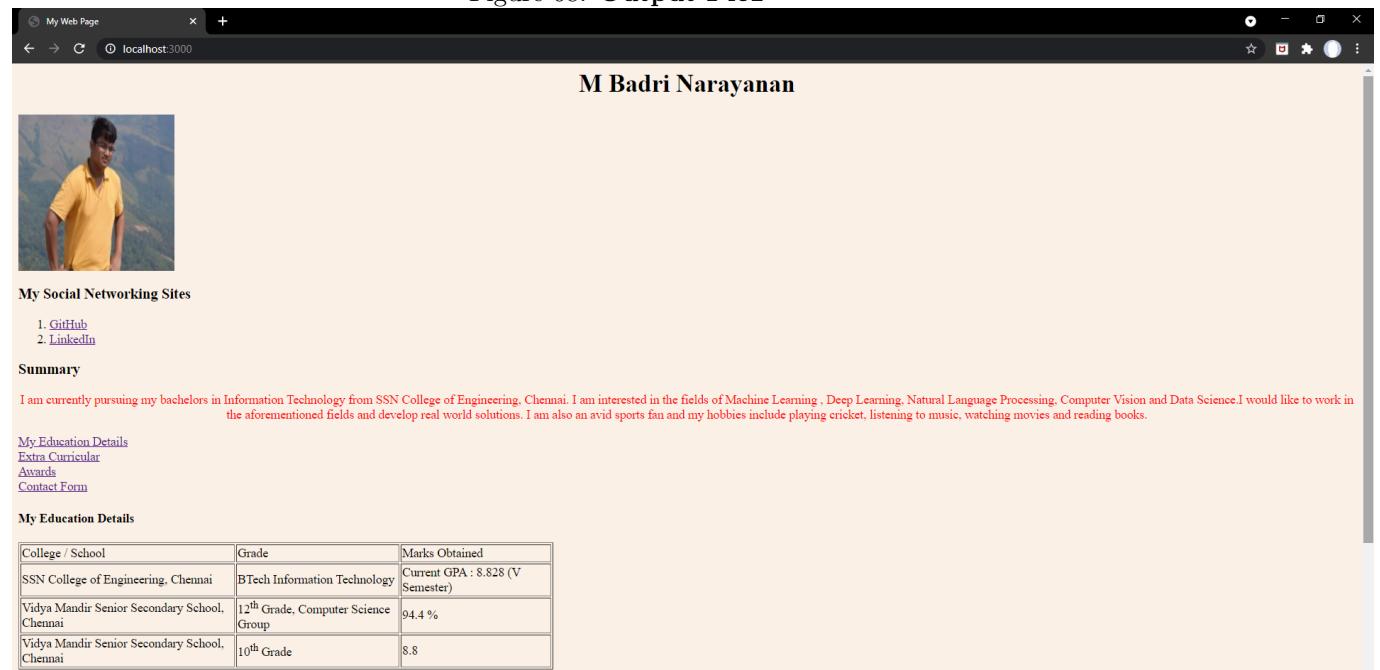


Figure 69: Output Pic2

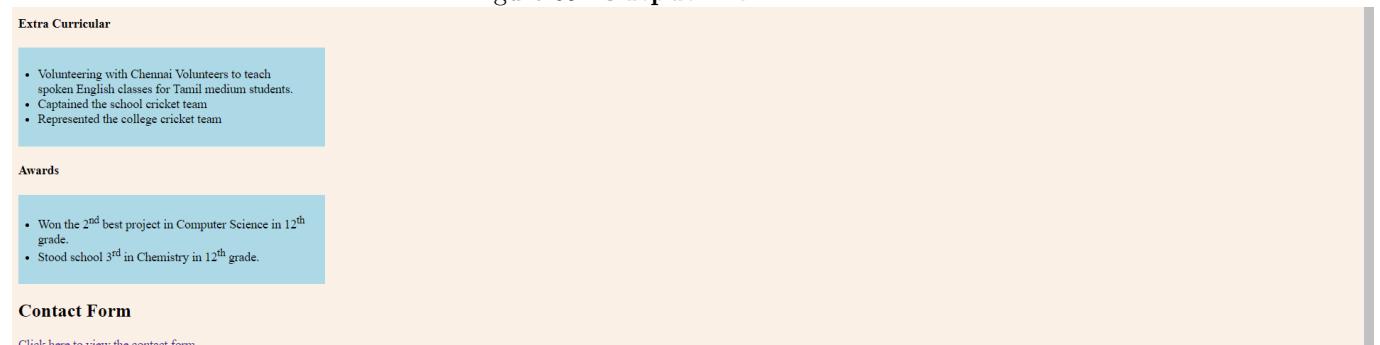


Figure 70: Output Pic3

A screenshot of a web browser displaying a contact form at the URL `localhost:3000/contact`. The page title is "Contact Form". The form fields and their values are:

- Title**: M
- You Entered: M**
- First Name**: Badri
- You Entered: Badri**
- Last Name**: Narayanan
- You Entered: Narayanan**
- Phone Number**: 8220584258
- You Entered: 8220584258**
- Email**: badri@gmail.com

Figure 71: Output Pic4

You Entered: Narayanan

Phone Number

8220584258

You Entered: 8220584258

Email

badri@gmail.com

You Entered: badri@gmail.com

Subject

Very good website !!

You Entered: Very good website !!

Submit

Figure 72: Output Pic5

← → C ⓘ localhost:3000/done

**Record Inserted !!**

Figure 73: Output Pic6

```
_id: ObjectId("608ff95e70d4f048a87cbf70")
title: "M"
firstname: "Badri"
lastname: "Narayanan"
mobilenumber: "8220584258"
emailid: "badri@gmail.com"
message: "Very good website !!"
__v: 0
```

---

## Result

The MEAN Stack simple webpage was implemented and the Insertion operation was performed.

---

---

## Chat application using Node and Express

<b>Name:</b>	M Badri Narayanan
<b>Reg No:</b>	185002018
<b>Semester:</b>	VI
<b>Exercise Number:</b>	11
<b>Date:</b>	April 20, 2021

---

### Aim

To create a chat application using Node and Express.

---

### Procedure

- First initialise the express framework using require() call, and declare a variable app to use the express framework.
  - Similarly, instantiate two variables for HTTP server and Socket connection.
  - Then, render index.ejs when we got to localhost:8080.
  - Now, when the socket first receives a connection(listening on 8080), it prompts for a username and declares that username is online.
  - When the connection is disconnected, the application declares that the user has left the room.
  - Then listen on port 8080.
- 

### EJS Code (index.ejs)

```
<!DOCTYPE html>
<html>
  <head>
    <title>Simple Group Chat on Node.js</title>
    <style>
      * { margin: 0; padding: 0; box-sizing: border-box; }
      body { font: 13px Helvetica, Arial; }
      form { background: #fff; padding: 3px; position: fixed; bottom: 0; width:
        100%; border-color: #000; border-top-style: solid; border-top-width: 1px; }
      form input { border-style: solid; border-width: 1px; padding: 10px; width:
        85%; margin-right: .5%; }
      form button { width: 9%; background: rgb(130, 224, 255); border: none;
        padding: 10px; margin-left: 2%; }
      #messages { list-style-type: none; margin: 0; padding: 0; }
      #messages li { padding: 5px 10px; }
      #messages li:nth-child(odd) { background: #eee; }
    </style>
    <script src="../../socket.io/socket.io.js"></script>
    <script src="http://code.jquery.com/jquery-1.10.1.min.js"></script>
  </head>
  <body>
```

```

<ul id="messages"></ul>
<form action="/" method="POST" id="chatForm">
    <input id="txt" autocomplete="off" autofocus="on" oninput="isTyping()" 
    ↵ placeholder="type your message here..." /><button>Send</button>
</form>
<script>
    var socket = io.connect('http://localhost:8080');

    // submit text message without reload/refresh the page
    $('form').submit(function(e){
        e.preventDefault(); // prevents page reloading
        socket.emit('chat_message', $('#txt').val());
        $('#txt').val('');
        return false;
    });

    // append the chat text message
    socket.on('chat_message', function(msg){
        $('#messages').append($('- ').html(msg));
    });

    // append text if someone is online
    socket.on('is_online', function(username) {
        $('#messages').append($('- ').html(username));
    });

    // ask username
    var username = prompt('Please tell me your name');
    socket.emit('username', username);

</script>
</body>
</html>

```

---

### Java Script Code (index.js)

```

const express = require('express');
const app = express();
const http = require('http').Server(app);
const io = require('socket.io')(http);

app.get('/', function(req, res) {
    res.render('index.ejs');
});

io.sockets.on('connection', function(socket) {
    socket.on('username', function(username) {
        socket.username = username;
        io.emit('is_online', ' <i>' + socket.username + ' joined the chat..</i>');
    });

    socket.on('disconnect', function(username) {
        io.emit('is_online', ' <i>' + socket.username + ' left the chat..</i>');
    })

    socket.on('chat_message', function(message) {
        io.emit('chat_message', '<strong>' + socket.username + '</strong>: ' +
        ↵ message);
    });
}

```

```
});  
  
const server = http.listen(8080, function() {  
  console.log('listening on *:8080');  
});
```

---

## Output

Figure 74: Output Pic1

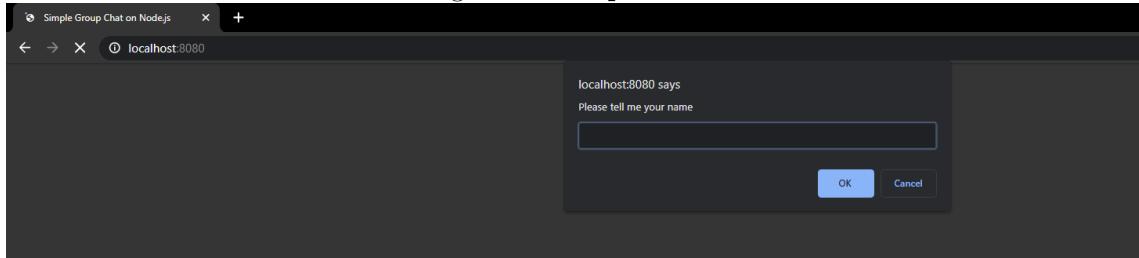


Figure 75: Output Pic2

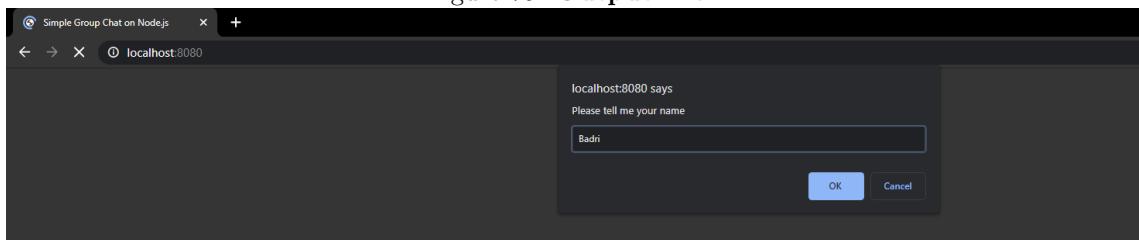


Figure 76: Output Pic3

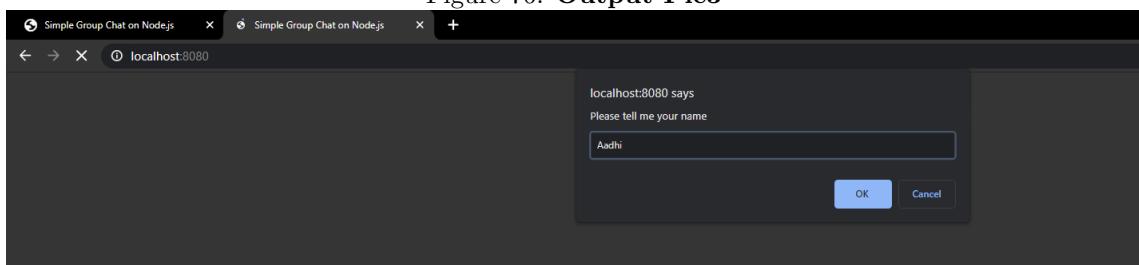


Figure 77: Output Pic4

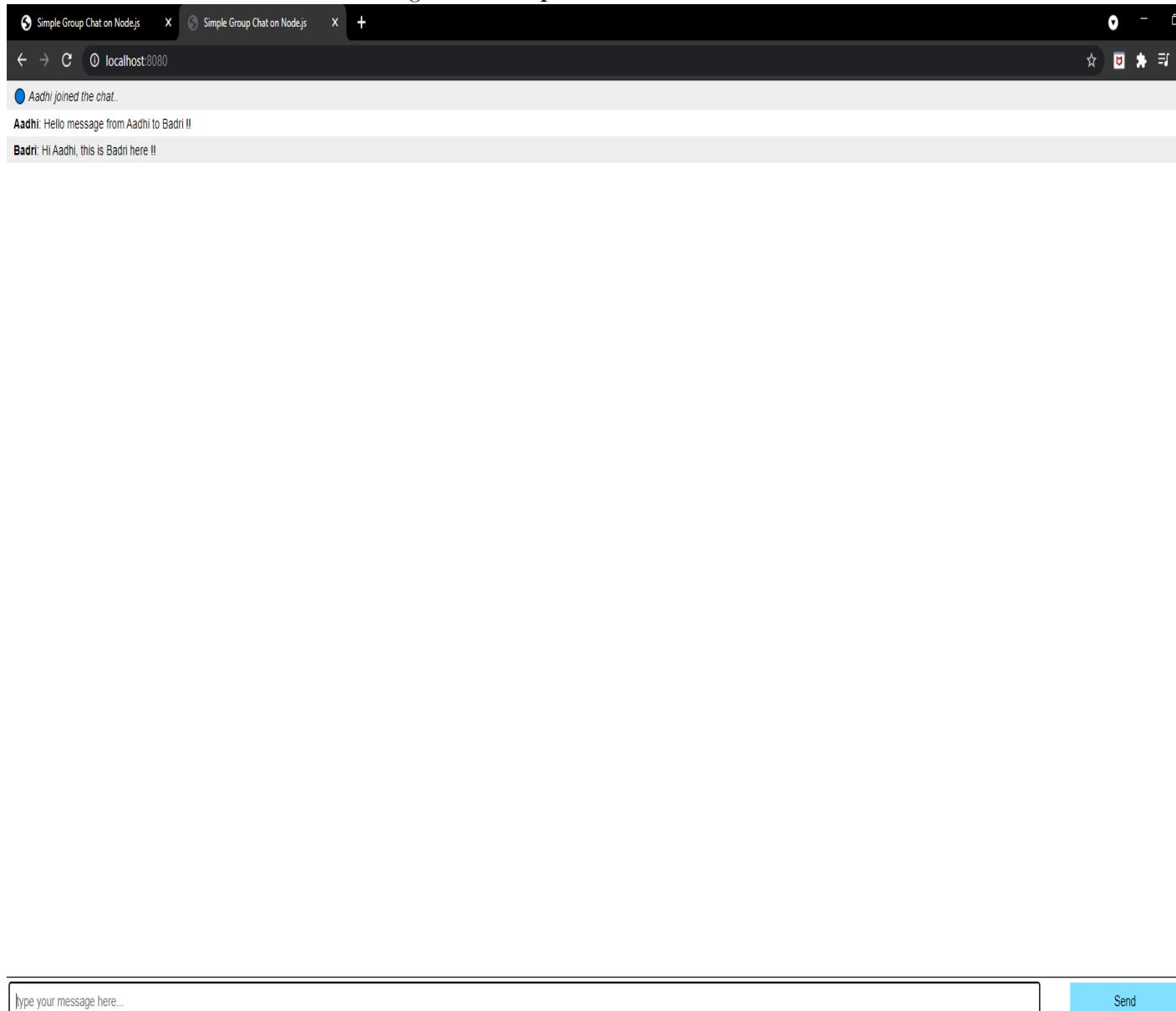
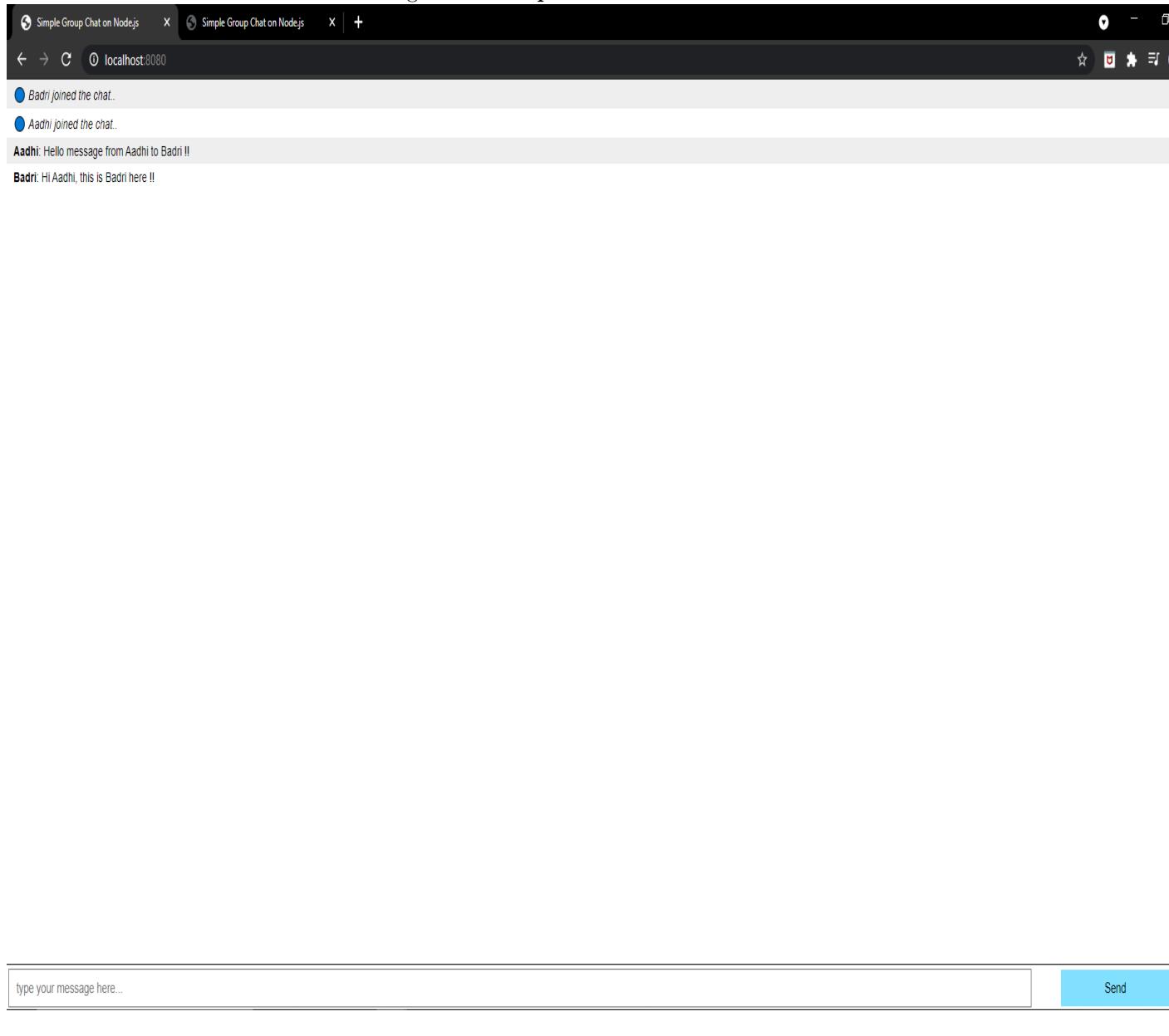


Figure 78: Output Pic5



## Result

Hence a Chat application has been created using Node and Express.

---

## RESTful web service for Calculator Application

<b>Name:</b>	M Badri Narayanan
<b>Reg No:</b>	185002018
<b>Semester:</b>	VI
<b>Exercise Number:</b>	12
<b>Date:</b>	April 27, 2021

---

### Aim

To write a program to implement RESTful web service for calculator application.

---

### Procedure

- Get the operands using input tag and the operator using option tag.
  - The div enclosing the calculator is directed to the corresponding ng-app and ng-controller.
  - Have a calculate button whose ng-click is directed to the calculate function in the controller.
  - Have a tag for answer which is linked to the result passed by the controller.
  - Inside the controller get the operator and pass it to the \$http.get function and pass the first and second operands as query params in the get function.
  - Store the result in \$scope.answer.
- 

### For the Server

- Connect to express.
  - Based on different paths, route app.get and perform the respective operations.
  - Store query first and query second in two variables.
  - Convert the variables to numbers.
  - Perform the required operation using the two numbers and send the result.
-

---

## Java Script Code (Calc.js)

```
const express = require("express");
const app = express();
app.use(express.static("public"));
app.get("/", (req, res) => {
    res.sendFile(__dirname + "/RESTCalc.html");
});
app.get("/add", (req, res) => {
    var first = req.query.first;
    var second = req.query.second;
    var value = Number(first) + Number(second);
    var result = {result: value};
    res.send(result);
});
app.get("/subtract", (req, res) => {
    var first = req.query.first;
    var second = req.query.second;
    var value = Number(first) - Number(second);
    var result = {result: value};
    res.send(result);
});
app.get("/multiply", (req, res) => {
    var first = req.query.first;
    var second = req.query.second;
    var value = Number(first) * Number(second);
    var result = {result: value};
    res.send(result);
});
app.get("/divide", (req, res) => {
    var first = req.query.first;
    var second = req.query.second;
    var value = Number(first) / Number(second);
    var result = {result: value};
    res.send(result);
});
app.listen(7000);
```

---

## HTML Code (RESTCalc.html)

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Calculator</title>
    <style>
        body{
        }
    </style>
</head>
<body>
<script
    src="https://ajax.googleapis.com/ajax/libs/angularjs/1.3.14/angular.min.js"></script>
<center><h3>CALCULATOR</h3>
<div ng-app="CalculatorApp" ng-controller="CalculatorController">
    <p><b>Operand 1</b></p>
    <p><input type="number" ng-model="first"></p>
```

```

<p><b>Operand 2</b></p>
<p><input type="number" ng-model="second"></p>
<p><b>Choose operation</b></p>
<p><select ng-model="operator">
    <option value="add">+</option>
    <option value="subtract">-</option>
    <option value="multiply">*</option>
    <option value="divide">/</option>
</select></p>
<button ng-click="calculate()">CALCULATE</button>
<p><b>ANSWER</b></p>
<p ng-model="answer">{{answer}}</p>
</div>
</center>
<script>
    angular.module('CalculatorApp', [])
        .controller('CalculatorController', function ($scope, $http) {
            $scope.calculate = function () {
                ops = $scope.operator;
                $http.get(ops,
                {
                    params: {
                        first: $scope.first,
                        second: $scope.second
                    }
                }).success(function (res) {
                    console.log('Exit status ' + JSON.stringify(res));
                    $scope.answer = res.result;
                });
            };
        });
</script>
</body>
</html>

```

---

## Output

Figure 79: Output Pic1

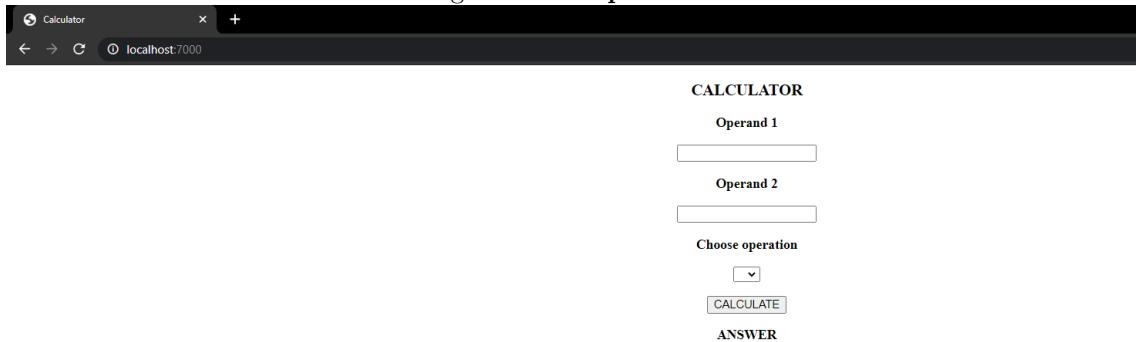


Figure 80: Output Pic2

A screenshot of a web browser window titled "Calculator". The URL bar shows "localhost:7000". The page contains a form titled "CALCULATOR". It has two input fields labeled "Operand 1" and "Operand 2" containing the values "18" and "12" respectively. Below these is a dropdown menu labeled "Choose operation" with "+ ▾" selected. A "CALCULATE" button is present. The result is displayed in a "ANSWER" section below, showing the value "30".

Figure 81: Output Pic3

A screenshot of a web browser window titled "Calculator". The URL bar shows "localhost:7000". The page contains a form titled "CALCULATOR". It has two input fields labeled "Operand 1" and "Operand 2" containing the values "18" and "12" respectively. Below these is a dropdown menu labeled "Choose operation" with "- ▾" selected. A "CALCULATE" button is present. The result is displayed in a "ANSWER" section below, showing the value "6".

---

## Result

A RESTful web service for calculator application was implemented successfully using node and express.

---