**PROGRAM-1**

**Write a program to develop a static website using HTML tables.**

**Program:**

***index.html***

```
<!DOCTYPE html>
<html>
<head>
  <title>Home</title>
</head>
<body>
<center>
  <img src="mj_logo.jpg" width="500">
</center>
<br><br>
<center>
<table border="1" width="70%" cellpadding="10" cellspacing="5">
  <tr align="center">
    <td><a href="index.html">Home</a></td>
    <td><a href="about.html">About</a></td>
    <td><a href="vision.html">Vision</a></td>
    <td><a href="mission.html">Mission</a></td>
    <td><a href="register.html">Register</a></td>
  </tr>
</table>
</center>
<br><br>
<center>
  <img src="cse.jpg" width="700">
```

```
    <h1>CSE Department</h1>
    <p>Welcome to the Computer Science And Engineering Department.</p>
    <br>
    <p>Designed by 1604-22-733-121</p>
</center>
</body>
</html>
```

---

***about.html***

```
<!DOCTYPE html>
<html>
<head>
    <title>About</title>
</head>
<body>
<center><h1>About Us</h1></center>
<center>
<table border="1" width="70%" cellpadding="10" cellspacing="5">
    <tr align="center">
        <td><a href="index.html">Home</a></td>
        <td><a href="about.html">About</a></td>
        <td><a href="vision.html">Vision</a></td>
        <td><a href="mission.html">Mission</a></td>
        <td><a href="register.html">Register</a></td>
    </tr>
</table>
</center>
<br><br>
```

<img src="about.png" width="400">

Established in 1980, Muffakham Jah College of Engineering and Technology is a premier institute of its kind, offering four year B.E. degree courses in 7 Engineering branches, namely, Civil Engineering, Computer Science Engineering, Computer Science Engineering (Artificial Intelligence), Computer Science Engineering (Artificial Intelligence & Machine Learning), Computer Science Engineering (Data Science), Electronics and Communication Engineering, Mechanical Engineering and four post graduate courses in M.E. (CAD/CAM), M.E. (Structural Engineering), M.E. (Embedded Systems & VLSI Design), M. Tech. (Computer Science) of two years duration. The College is a Minority Autonomous Educational Insitution affiliated to Osmania University and is approved by the AICTE and accredited by the NAAC with Grade A+ and four UG programs Civil Engineering, Computer Science and Engineering, Electronics and Communication Engineering and Mechanical Engineering are accredited by NBA for a period of 3 years from 2024-25 to 2026-27 up to 30-6-2027.

</body>

</html>

---

***vision.html***

```
<!DOCTYPE html>

<html>

<head>

<title>Vision</title>

</head>

<body>

<center><h1>Vision</h1></center>

<center>

<table border="1" width="70%" cellpadding="10" cellspacing="5">

<tr align="center">

<td><a href="index.html">Home</a></td>

<td><a href="about.html">About</a></td>
```

```
      <td><a href="vision.html">Vision</a></td>
      <td><a href="mission.html">Mission</a></td>
      <td><a href="register.html">Register</a></td>
   </tr>
</table>
</center>
<br><br>
<center>
   <img src="vm.png" width="500">
   <p>To empower the faculty and students in the area of Research & Development by providing seed funds for implementing their innovative research and product development ideas.</p>
</center>
</body>
</html>
```

---

***mission.html***

```
<!DOCTYPE html>
<html>
<head>
   <title>Mission</title>
</head>
<body>
<center><h1>Mission</h1></center>
<center>
<table border="1" width="70%" cellpadding="10" cellspacing="5">
   <tr align="center">
      <td><a href="index.html">Home</a></td>
      <td><a href="about.html">About</a></td>
```

```
      <td><a href="vision.html">Vision</a></td>
      <td><a href="mission.html">Mission</a></td>
      <td><a href="register.html">Register</a></td>
   </tr>
</table>
</center>
<br><br>
<center>
   <img src="vm.png" width="500">
        <p>
          To motivate faculty and students to undertake Research and Development activities
          as a means of nourishing innovative thought process.
        </p>
        <p>
          To encourage interdisciplinary Research and Development projects leading to
          solutions for real world problems through the synthesis of diverse ideas and skills.
        </p>
        <p>
          To serve as a medium for three-way interaction between the Institute,
          Research and Development organizations, and Industry.
        </p>
        <p>
          To assist faculty, Ph.D. scholars, and students to apply for funding under
          various Government, Professional Chapter, or Private Sector schemes.
        </p>
        <p>
          To encourage publication of technical papers in National and International
          refereed journals and conferences based on research carried out by faculty
```

```
        and students.
      </p>
      <p>
        To register outcomes of Research and Development work under Intellectual
        Property Rights such as patents and copyrights.
      </p>
      <p>
        To facilitate signing of Memorandum of Understanding (MoU) with industries
        and Research and Development organizations for research and product
development.
      </p>
</center>
</body>
</html>
```

---

***register.html***

```
<!DOCTYPE html>
<html>
<head>
  <title>Registration</title>
</head>
<body>
<center><h1>Student Registration</h1></center>
<center>
<table border="1" width="70%" cellpadding="10" cellspacing="5">
  <tr align="center">
    <td><a href="index.html">Home</a></td>
    <td><a href="about.html">About</a></td>
```

```
        <td><a href="vision.html">Vision</a></td>
        <td><a href="mission.html">Mission</a></td>
        <td><a href="register.html">Register</a></td>
    </tr>
</table>
</center>
<br><br>   <!-- GAP HERE -->
<center>
<form>
    Name: <input type="text"><br><br>
    Email: <input type="text"><br><br>
    <input type="submit" value="Submit">
</form>
</center>
</body>
</html>
```

**Output:**

# About Us

| Home | About | Vision | Mission | Register |
|---|---|---|---|---|

Established in 1980, Muffakham Jah College of Engineering and Technology is a premier institute of its kind, offering four year B.E. degree courses in 7 Engineering branches, namely, Civil Engineering, Computer Science Engineering, Computer Science Engineering (Artificial Intelligence), Computer Science Engineering (Artificial Intelligence & Machine Learning), Computer Science Engineering (Data Science), Electronics and Communication Engineering, Mechanical Engineering and four post graduate courses in M.E. (CAD/CAM), M.E. (Structural Engineering), M.E. (Embedded Systems & VLSI Design), M. Tech. (Computer Science) of two years duration. The College is a Minority Autonomous Educational Insitution affiliated to Osmania University and is approved by the AICTE and accredited by the NAAC with Grade A+ and four UG programs Civil Engineering, Computer Science and Engineering, Electronics and Communication Engineering and Mechanical Engineering are accredited by NBA for a period of 3 years from 2024-25 to 2026-27 up to 30-6-2027.

# Vision

| Home | About | Vision | Mission | Register |
|---|---|---|---|---|

To empower the faculty and students in the area of Research & Development by providing seed funds for implementing their innovative research and product development ideas.

# Mission

| Home | About | Vision | Mission | Register |
|---|---|---|---|---|

To motivate faculty and students to undertake Research and Development activities as a means of nourishing innovative thought process.

To encourage interdisciplinary Research and Development projects leading to solutions for real world problems through the synthesis of diverse ideas and skills.

To serve as a medium for three-way interaction between the Institute, Research and Development organizations, and Industry.

To assist faculty, Ph.D. scholars, and students to apply for funding under various Government, Professional Chapter, or Private Sector schemes.

To encourage publication of technical papers in National and International refereed journals and conferences based on research carried out by faculty and students.

To register outcomes of Research and Development work under Intellectual Property Rights such as patents and copyrights.

To facilitate signing of Memorandum of Understanding (MoU) with industries and Research and Development organizations for research and product development.

# Student Registration

| Home | About | Vision | Mission | Register |
|---|---|---|---|---|

Name:

Email:

Submit

**Program-2**

**Develop a static website using DIV and CSS**

***Index.html***

```
<!DOCTYPE html>
<html>
<head>
   <title>Home Page</title>
   <!-- External CSS -->
   <link rel="stylesheet" href="style.css">
   <!-- Internal CSS -->
   <style>
      #mainTitle {
         color: darkblue;
         text-decoration: underline;
      }
   </style>
</head>
<body>
<div class="content">
   <img src="mj_logo.jpg" width="450">
</div>
<br>
<div class="nav">
   <div><a href="index.html">Home</a></div>
   <div><a href="about.html">About</a></div>
   <div><a href="vision.html">Vision</a></div>
   <div><a href="mission.html">Mission</a></div>
   <div><a href="register.html">Register</a></div>
```

```
</div>
<br>
<div class="content">
   <img src="cse.jpg" width="650">
   <h1 id="mainTitle">Computer Science Engineering</h1>
   <p style="color: darkgreen;">
      Welcome to the Computer Science Engineering Department.
   </p>
   <p>
      Designed by <b>1604-22-733-121</b>
   </p>
</div>
</body>
</html>
```

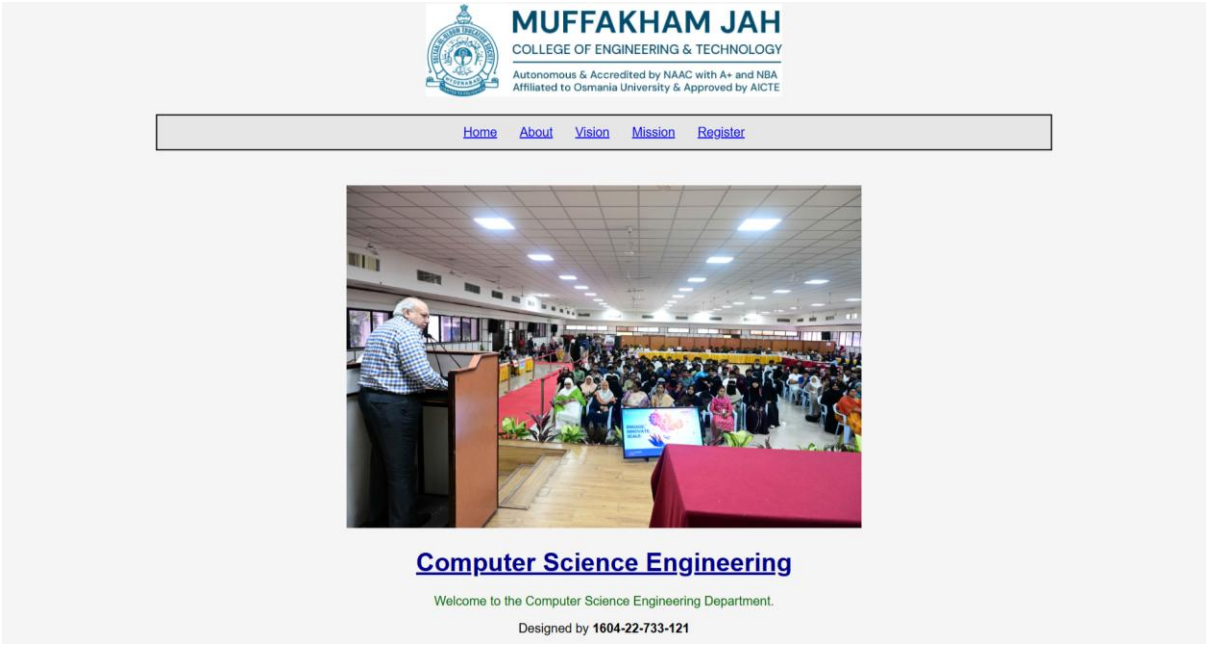
---

***style.css***

```
body {
   font-family: Arial, sans-serif;
   background-color: #f5f5f5;
}
.nav {
   width: 75%;
   margin: auto;
   border: 2px solid black;
   text-align: center;
   background-color: #e6e6e6;
}
.nav div {
```

```
    display: inline-block;
    padding: 12px;
}
.content {
    text-align: center;
    margin-top: 25px;
}
```

**Output:**



**Program-3**

**Develop a registration page using HTML forms**

***Index.html***

```
<!DOCTYPE html>
<html>
<head>
   <!-- Title of the webpage -->
   <title>Registration Form</title>
   <!-- Linking external CSS file -->
   <link rel="stylesheet" href="form.css">
</head>
<body>
<!-- Main container to center the form -->
<div class="container">
   <!-- Form heading -->
   <h2>Student Registration Form</h2>
   <!-- Form starts here -->
   <form>
      <!-- TEXT FIELD: Name -->
      <label>Name</label>
      <input type="text" placeholder="Enter your name">
      <!-- PASSWORD FIELD -->
      <label>Password</label>
      <input type="password" placeholder="Enter password">
      <!-- DROPDOWN LIST -->
      <label>Branch</label>
      <select>
         <option>Select Branch</option>
```

```
    <option>CSE</option>
    <option>ECE</option>
    <option>MECH</option>
    <option>CIVIL</option>
</select>
<!-- LIST BOX (Multiple selection using Ctrl key) -->
<label>Subjects (Hold Ctrl to select multiple)</label>
<select multiple size="4">
    <option>DSA</option>
    <option>DBMS</option>
    <option>OS</option>
    <option>AI</option>
</select>
<!-- RADIO BUTTONS (Select only one) -->
<label>Gender</label>
<div class="options">
    <input type="radio" name="gender"> Male
    <input type="radio" name="gender"> Female
</div>
<!-- CHECKBOXES (Select one or more) -->
<label>Skills</label>
<div class="options">
    <input type="checkbox"> Python
    <input type="checkbox"> Java
    <input type="checkbox"> C
</div>
<!-- TEXT AREA -->
<label>Address</label>
```

```
        <textarea rows="4"></textarea>
        <!-- SUBMIT & RESET BUTTONS (Inline CSS used here) -->
        <div class="buttons">
            <input type="submit" value="Submit"
                style="background-color: navy; color: white;">
            <input type="reset" value="Reset"
                style="background-color: gray; color: white;">
        </div>
    </form>
    <!-- Form ends here -->
</div>
<!-- Container ends here -->
</body>
</html>
```

---

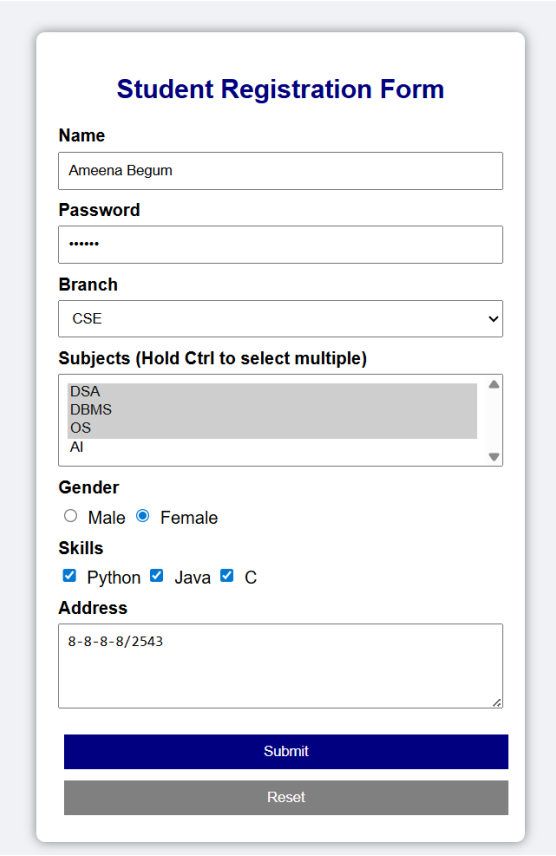
***form.css***

```
/* Style applied to entire page */
body {
    font-family: Arial, sans-serif;
    background-color: #f0f2f5;
}
/* Container div to center the form */
.container {
    width: 450px;
    background-color: white;
    padding: 20px;
    margin: 50px auto;
    border-radius: 8px;
```

```
    box-shadow: 0 0 10px gray;
    box-sizing: border-box;
}
/* Heading style */
h2 {
    text-align: center;
    color: navy;
}
/* Label styling */
label {
    font-weight: bold;
    display: block;
    margin-top: 10px;
}
/* Common style for inputs, dropdowns, textarea */
input, select, textarea {
    width: 100%;
    padding: 8px;
    margin-top: 5px;
    box-sizing: border-box;
}
/* Radio & checkbox input size correction */
.options input {
    width: auto;
    margin-right: 5px;
}
/* Space above option groups */
.options {
```

```
    margin-top: 5px;
}
/* Button container */
.buttons {
    text-align: center;
    margin-top: 15px;
}
/* Button styling */
.buttons input {
    padding: 8px 20px;
    margin: 5px;
    border: none;
    cursor: pointer;
}
```

**Output:**



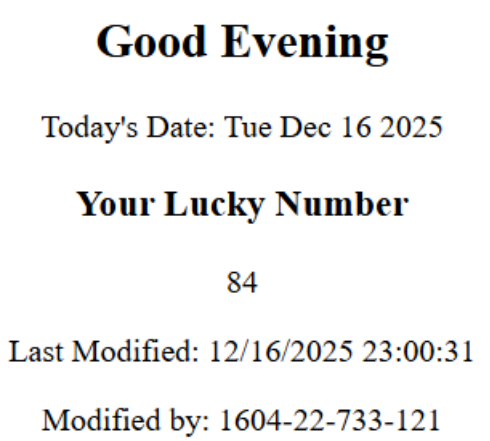
**Program-4**

**Develop a dynamic web page using JavaScript**

```
<!DOCTYPE html>
<html>
<head>
   <title>Dynamic Web Page</title>
</head>
<body>
<center>
   <h2 id="greeting"></h2>
   <p id="date"></p>
   <h3>Your Lucky Number</h3>
   <p id="lucky"></p>
   <p id="modified"></p>
   <p> Modified by: 1604-22-733-121</p>
</center>

<script>
   // Date object
   var today = new Date();
   var hour = today.getHours();

   // Greeting based on time
   var greet;
   if (hour < 12) {
      greet = "Good Morning";
   } else if (hour < 18) {
      greet = "Good Afternoon";
```

```
    } else {
        greet = "Good Evening";
    }
    // Display greeting and date
    document.getElementById("greeting").innerHTML = greet;
    document.getElementById("date").innerHTML = "Today's Date: " + today.toDateString();
    // Math object - random lucky number
    var luckyNumber = Math.floor(Math.random() * 100) + 1;
    document.getElementById("lucky").innerHTML = luckyNumber;
    // Last modified information
    document.getElementById("modified").innerHTML =
        "Last Modified: " + document.lastModified;
</script>
</body>
</html>
```

**Output:**



**Program-5**

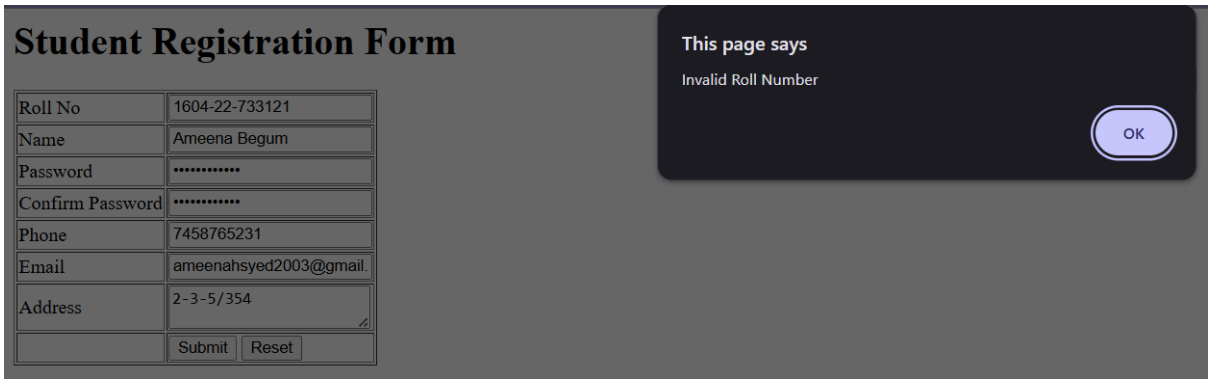
**Write a JavaScript program to validate the registration**

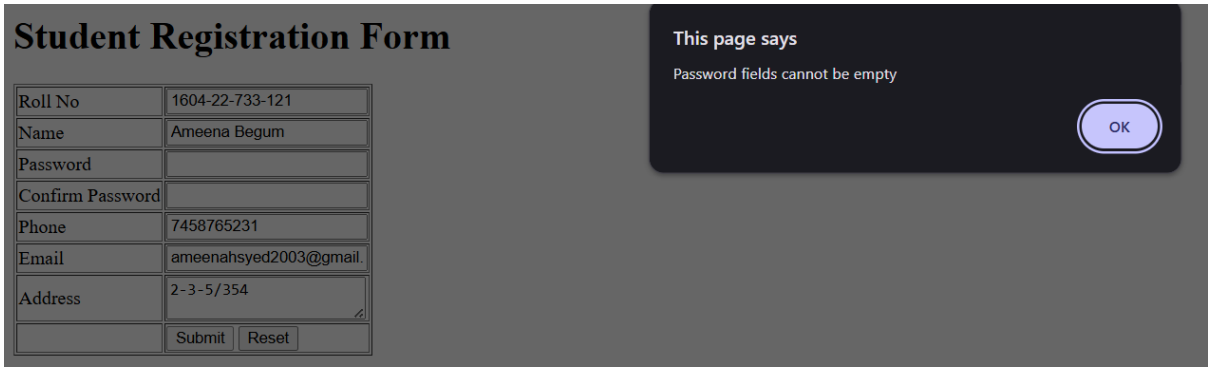
```
<html>
<head>
   <title>Registration Form Validation</title>
   <script>
      function validate() {
         /* Roll Number validation */
         var rn = document.getElementById("roll");
         if (rn.value == "") {
            alert("Roll Number cannot be empty");
            return false;
         }
         if (rn.value.search(/[0-9]{4}-[0-9]{2}-[0-9]{3}-[0-9]{3}$/) == -1) {
            alert("Invalid Roll Number");
            return false;
         }
         /* Name validation */
         var sn = document.getElementById("sname");
         if (sn.value == "") {
            alert("Name cannot be empty");
            return false;
         }
         if (sn.value.search(/[A-Z a-z]*$/) == -1) {
            alert("Invalid Name");
            return false;
         }
         /* Password match validation */
```

```
    var pass = document.getElementById("pwd");
    var cpass = document.getElementById("cpwd");
    if (pass.value == "" || cpass.value == "") {
        alert("Password fields cannot be empty");
        return false;
    }
    if (pass.value != cpass.value) {
        alert("Passwords do not match");
        return false;
    }
    /* Phone number validation */
    var pho = document.getElementById("ph");
    if (pho.value == "") {
        alert("Phone number cannot be empty");
        return false;
    }
    if (pho.value.search(/[0-9]{10}$/) == -1) {
        alert("Invalid Phone Number");
        return false;
    }
    /* Email validation */
    var em = document.getElementById("email");
    if (em.value.search(/[A-Z a-z 0-9._]*@[A-Z a-z]*\.[A-Z a-z]*$/) == -1) {
        alert("Invalid Email Address");
        return false;
    }
    return true;
}
```

```
    </script>
</head>
<body>
    <h1>Student Registration Form</h1>
    <form onsubmit="return validate();">
        <table border="1">
            <tr><td>Roll No</td><td><input type="text" id="roll"></td></tr>
            <tr><td>Name</td><td><input type="text" id="sname"></td></tr>
            <tr><td>Password</td><td><input type="password" id="pwd"></td></tr>
            <tr><td>Confirm Password</td><td><input type="password" id="cpwd"></td></tr>
            <tr><td>Phone</td><td><input type="text" id="ph"></td></tr>
            <tr><td>Email</td><td><input type="text" id="email"></td></tr>
            <tr><td>Address</td><td><textarea id="addr"></textarea></td></tr>
            <tr>
                <td></td>
                <td>
                    <input type="submit">
                    <input type="reset">
                </td>
            </tr>
        </table>
    </form>
</body>
</html>
```

**Output:**


Student Registration Form
Roll No
1604-22-733121
Name
Ameena Begum
Password
Confirm Password
Phone
7458765231
Email
ameenahsyed2003@gmail.
Address
2-3-5/354
Submit
Reset
This page says
Invalid Roll Number
OK


Student Registration Form
Roll No
1604-22-733-121
Name
Ameena Begum
Password
Confirm Password
Phone
7458765231
Email
ameenahsyed2003@gmail.
Address
2-3-5/354
Submit
Reset
This page says
Password fields cannot be empty
OK

**Program-6**

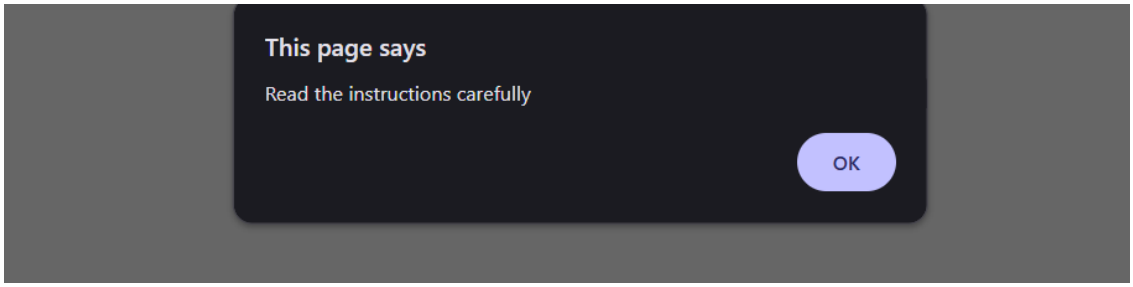
**Create a dynamic web page using JavaScript event handling and DOM manipulation.**

```
<!DOCTYPE html>
<html>
<head>
  <title>JavaScript Event Handling</title>
  <script>
    function showInstructions() {
      alert("Read the instructions carefully");
    }
    function validateForm() {
      alert("Form submitted successfully");
    }
    function clearForm() {
      alert("Form cleared");
    }
    /* onclick event + DOM manipulation */
    function copyAddress() {
      var contact = document.getElementById("cta").value;
      document.getElementById("pta").value = contact;
    }
    function focusPhone() {
      document.getElementById("phone").style.color = "red";
    }
    function blurPhone() {
      document.getElementById("phone").style.color = "black";
    }
  </script>
```

```
</head>
<body onload="showInstructions()">
<center>
  <h1>JavaScript Event Handling Demo</h1>
  <form onsubmit="validateForm()" onreset="clearForm()">
    Name:
    <input type="text" id="sname" onblur="alert('Name field left')">
    <br><br>
    Phone No:
    <input type="text" id="phone"
        onfocus="focusPhone()"
        onblur="blurPhone()">
    <br><br>
    Contact Address:
    <textarea id="cta"></textarea>
    <br><br>
    Permanent Address:
    <textarea id="pta"></textarea>
    <br><br>
    <input type="button"
        value="Same as Contact Address"
        onclick="copyAddress()">
    <br><br>
    <!-- Mouseover & Mouseout demo -->
    <p id="hoverText">Move mouse over this text</p>
    <input type="submit" value="Submit">
    <input type="reset" value="Reset">
    <br><br>
```

```
        <input type="button" value="Button-3" id="btn3">
    </form>
</center>
<!-- DOM handling using addEventListener -->
<script>
    /* mouseover & mouseout using DOM */
    var txt = document.getElementById("hoverText");
    txt.onmouseover = function () {
        txt.style.color = "blue";
        alert("Mouse Over Event");
    };
    txt.onmouseout = function () {
        txt.style.color = "black";
        alert("Mouse Out Event");
    };
    /* click event using addEventListener */
    var btn = document.getElementById("btn3");
    btn.addEventListener("click", function () {
        alert("Button-3 Clicked Listener 1");
    });
    btn.addEventListener("click", function () {
        alert("Button-3 Clicked Listener 2");
    });
</script>
</body>
</html>
```

**Output:**




# JavaScript Event Handling Demo

Name: Ameena Begum

Phone No: 4512874569

Contact Address: 2-3-6-/101

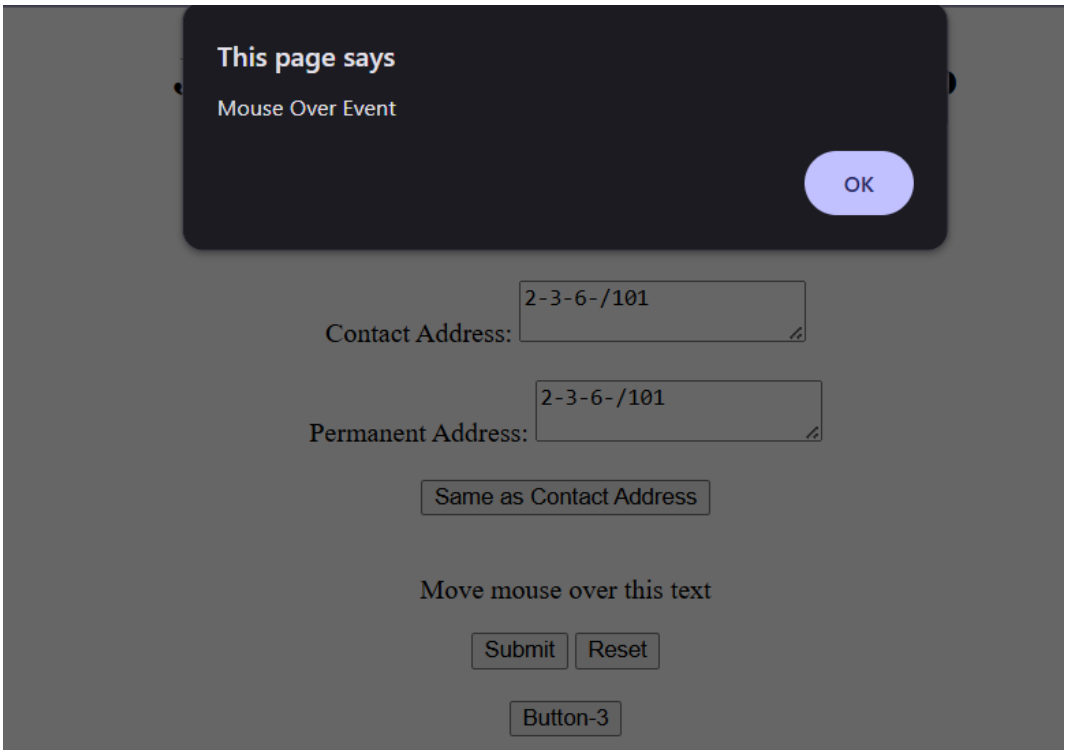
Permanent Address: 2-3-6-/101

Same as Contact Address

Move mouse over this text

Submit Reset

Button-3



**Program-7**

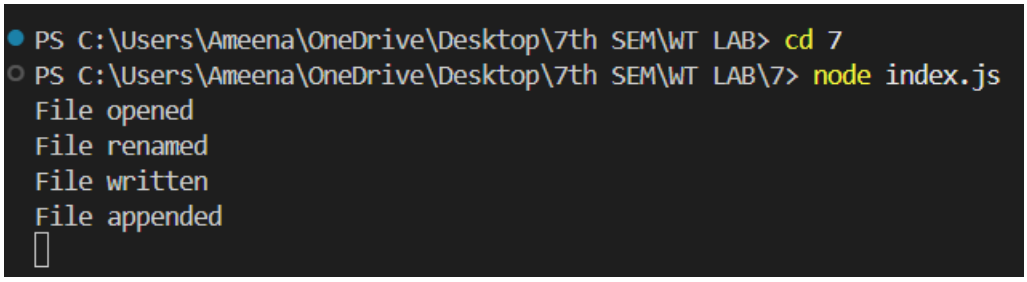
**Demonstrate working of built-in node.js modules and file system.**

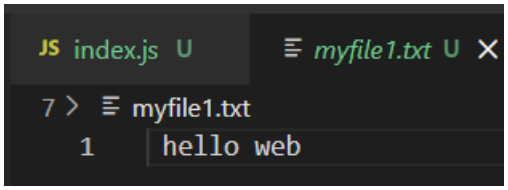
***index.js***

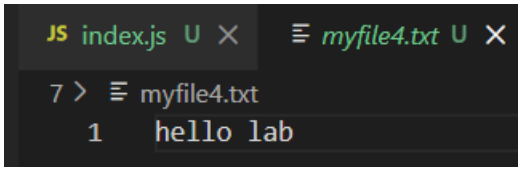
```
var http = require('http');
var os = require('os');
var fs = require('fs');
// HTTP Server
var server = http.createServer(function (req, res) {
   res.writeHead(200, { 'Content-Type': 'text/html' });
   res.write('Hello Web Technologies Lab <br>');
   res.write('Date: ' + Date() + '<br>');
   res.write('Platform: ' + os.platform() + '<br>');
   res.write('Architecture: ' + os.arch() + '<br>');
   res.write('Host Name: ' + os.hostname() + '<br>');
   res.write('OS Type: ' + os.type() + '<br>');
   var text = fs.readFileSync('content.txt', 'utf8');
   res.write('<br>File Content:<br>' + text);
   res.end();
});
server.listen(8080);
// File System Operations
fs.open('myfile1.txt', 'w', function (err, file) {
   if (err) throw err;
   console.log('File opened');
});
fs.writeFile('myfile3.txt', 'hello lab', function (err) {
   if (err) throw err;
   console.log('File written');
```

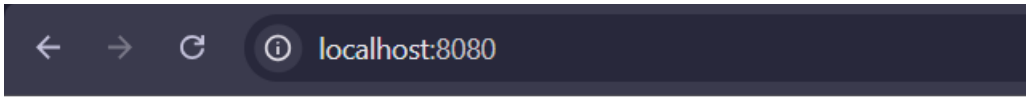
```
});
fs.appendFile('myfile1.txt', ' hello web', function (err) {
   if (err) throw err;
   console.log('File appended');
});
fs.rename('myfile3.txt', 'myfile4.txt', function (err) {
   if (err) throw err;
   console.log('File renamed');
});
```

**Output:**




Hello Web Technologies Lab
Date: Thu Dec 18 2025 22:20:01 GMT+0530 (India Standard Time)
Platform: win32
Architecture: x64
Host Name: LAPTOP-0OBP2H49
OS Type: Windows_NT

File Content:

**Program-8**

**Demonstrate routes and parameter handling in Express.js**

***login.js***

```
var express=require('express');
var router=express.Router();
router.get('/',(req,res)=>{
res.send('Login Page');
});
router.post('/',(req,res)=>{
res.send('Login Page');
});
module.exports=router;
```

---

***signup.js***

```
var express=require('express');
var router=express.Router();
router.get('/',(req,res)=>{
res.send('Sign Up Page');
});
router.post('/',(req,res)=>{
res.send('Signup page');
});
module.exports=router;
```

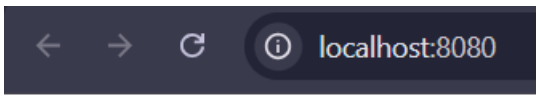
---

***index.js***

```
var express=require('express')
var app=express();
var loginroute=require('./Routes/login');
```

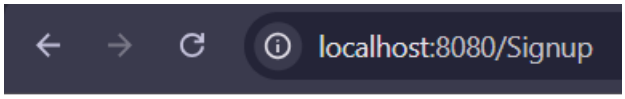
```
var signuproute=require('./Routes/signup');
app.get('/',(req,res)=>{
res.send('Hello Lab');
});
app.use('/login',loginroute);
app.use('/signup',signuproute);
app.get('/display/:uname/:pwd',(req,res)=>{
var values=req.params;
console.log(values);
console.log(req.query);
res.send('Values Received :'+req.params.uname);
});
app.listen(8080);
```

**Output**



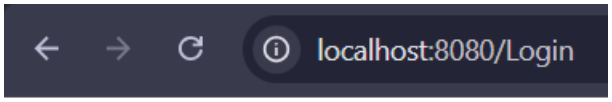

Hello Lab

---



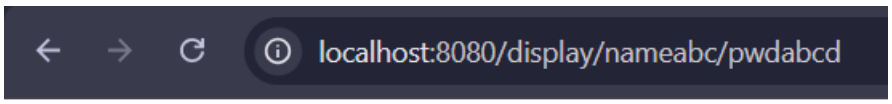

Sign Up Page

---




Login Page

---




Values Received : nameabc

---

**PROGRAM-9**

**Write a program to implement the MVC Architecture**

***Memo.ejs***

```
<html>
<head>
<title>
Marks Memo
</title>
</head>
<body>
<center>
<h1>Marks Memo</h1>
<h2> 1604-22-733-121</h2>
<table width="60%" border="1">
<tr>
<th>S.No</th>
<th>Code</th>
<th>Subject</th>
<th>Internal Marks</th>
<th>External Marks</th>
</tr>
<% data.forEach(function(data){ %>
<tr align="center">
<td><%= data.id %></td>
<td><%= data.code %></td>
<td align="left"><%= data.sub %></td>
<td><%= data.imarks %></td>
<td><%= data.emarks %></td>
```

```
</tr>
<% }) %>
</table>
</center>
</body>
</html>
```

---

***index.js***

```
var express = require("express");
var app = express();
app.set("view engine", "ejs");
app.set("views", __dirname + "/views");
var data = [
  { id: 1, code: "CS401", sub: "DAA", imarks: 28, emarks: "S" },
  { id: 2, code: "CS402", sub: "CN", imarks: 30, emarks: "A" },
  { id: 3, code: "CS403", sub: "OS", imarks: 22, emarks: "B" },
  { id: 4, code: "CS404", sub: "Java", imarks: 25, emarks: "C" }
];
app.get("/", (req, res) => {
  res.render("memo", { data });
});
app.listen(8080, () => {
  console.log("Server running on port 8080");
});
```

**Output:**


# Marks Memo

## 1604-22-733-121

| S.No | Code | Subject | Internal Marks | External Marks |
|---|---|---|---|---|
| 1 | CS401 | DAA | 28 | S |
| 2 | CS402 | CN | 30 | A |
| 3 | CS403 | OS | 22 | B |
| 4 | CS404 | Java | 25 | C |

**PROGRAM 10**

**Demonstrate rendering HTML and JSX using React.js**

```
import './App.css';
function App() {
  const collegeName = "Muffakham Jah College";
  const links = (
    <div>
      <a href="#">Faculty</a><br />
      <a href="#">Staff</a><br />
      <a href="#">Students</a><br />
    </div>
  );
  const today = new Date();
  return (
    <div className="App">
      <h1>{collegeName}</h1>
      <h2 style={{ color: "blue" }}>CSE Department</h2>
      {links}
      <p>{today.toDateString()}</p>
      <h3>Mission</h3>
      <p>
        To mentor students towards a successful professional career in a
        global environment through quality education.
      </p>
      <p style={{ fontStyle: "italic", marginTop: "20px" }}>
        Designed by: 1604-22-733-121
      </p>
    </div>
```

```
  );
}
export default App;
```

**Output:**

**PROGRAM 11**

**Demonstrate use of props, events, lists, forms using React.js**

```
import logo from './logo.svg';
import './App.css';
function App() {
return (
<div className="App">
<GetUser name="ABC" uid={100} />
<GetUser name="XYZ" uid={101} />
<MyForm />
<StudentsData />
<EventDemo />
</div>
);
}
function GetUser(props) {
return(
<div>
<p>{props.name}</p>
<p>{props.uid}</p>
</div> )
}
function MyForm() {
return (
<form>
Name: <input type='text'></input><br></br>
Email: <input type='text'></input><br></br>
Password: <input type='text'></input><br></br>
```

```
<input type='Submit'></input><br></br>
<input type='Reset'></input><br></br>
</form>
)
}
function StudentsData()
{
var list=[
{roll:1,name:'AAA'},
{roll:2,name:'BBB'},
{roll:3,name:'CCC'},
{roll:4,name:'DDD'}
];
return(
<>
<h1>Students List</h1>
<ul>
{list.map((row) => <li key={row.roll}>{row.name}</li>)}
</ul>
</>
)
}
function EventDemo()
{
var display=() =>{
alert('Hello');
}
return(
```

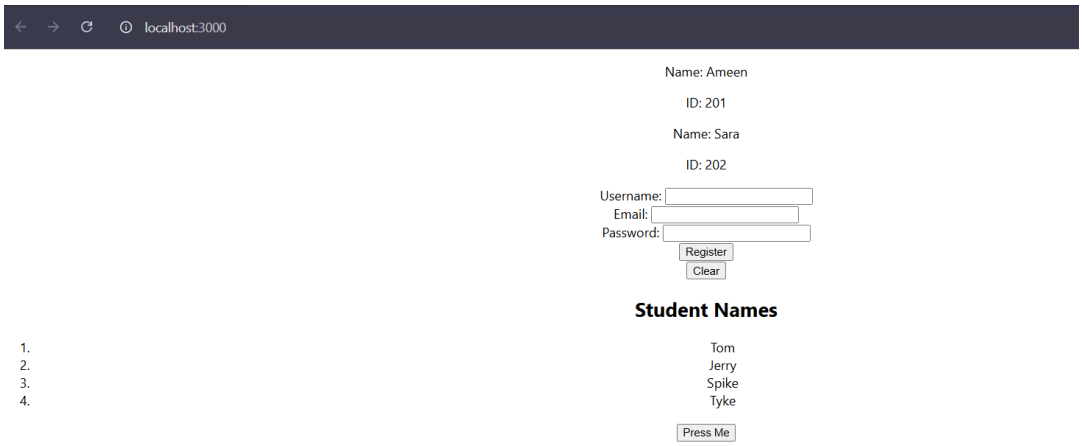
<button onClick={display}>Click Here</button>

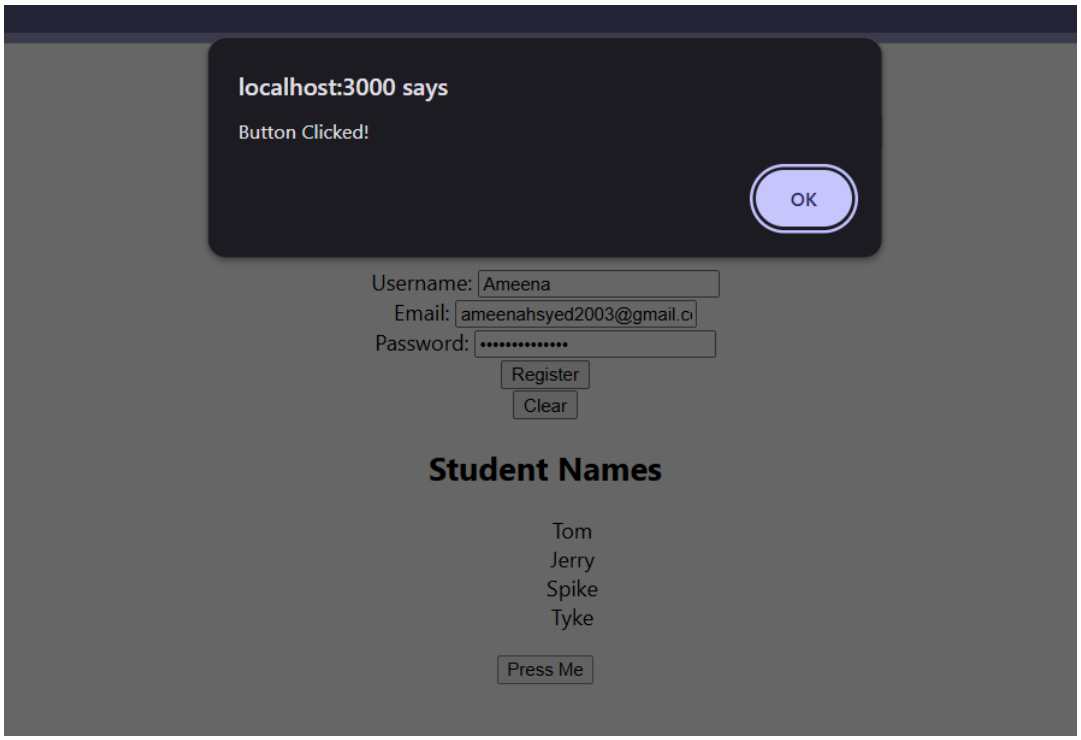
);

}

export default App;

**Output:**



**PROGRAM-12**

**Create a Single Page Application (SPA) using REST service.**

***RestServices/Index.js***

```
var express = require('express');
var cors = require('cors');
var fs = require("fs");
var app = express();
app.use(cors());
app.get('/students', function(req, res) {
  fs.readFile(__dirname + "/students.json", 'utf8', function(err, data) {
    res.end(data);
  });
});
app.get('/imarks', function(req, res) {
  fs.readFile(__dirname + "/imarks.json", 'utf8', function(err, data) {
    res.end(data);
  });
});
app.get('/emarks', function(req, res) {
  fs.readFile(__dirname + "/emarks.json", 'utf8', function(err, data) {
    res.end(data);
  });
});
app.listen(5000, () => {
  console.log("REST Service running on port 8080");
});
```

**JSON -----**

***emarks.json***

```
[
  { "id": 2001, "marks": 85 },
  { "id": 2002, "marks": 78 },
  { "id": 2003, "marks": 90 },
  { "id": 2004, "marks": 88 },
  { "id": 2005, "marks": 92 }
]
```

***imarks.json***

```
[
  { "id": 2001, "marks": 28 },
  { "id": 2002, "marks": 26 },
  { "id": 2003, "marks": 30 },
  { "id": 2004, "marks": 27 },
  { "id": 2005, "marks": 29 }
]
```

***students. Json***

```
[
  { "id": 2001, "name": "Ayesha" },
  { "id": 2002, "name": "Sara" },
  { "id": 2003, "name": "Rahul" },
  { "id": 2004, "name": "Neha" },
  { "id": 2005, "name": "Kiran" }
]
```

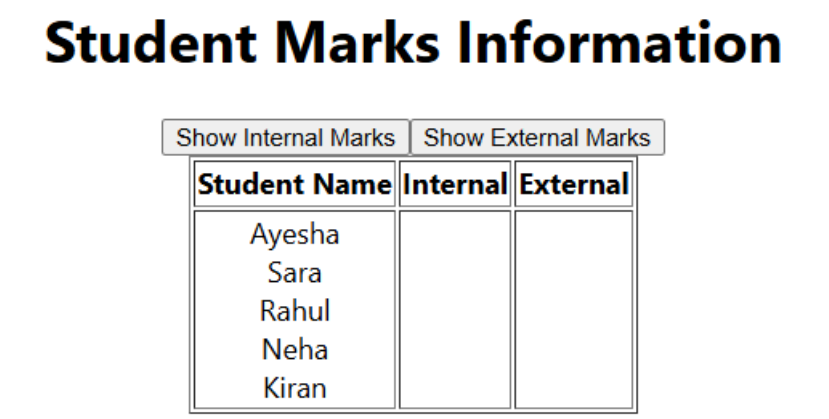
***Spa/App.js***

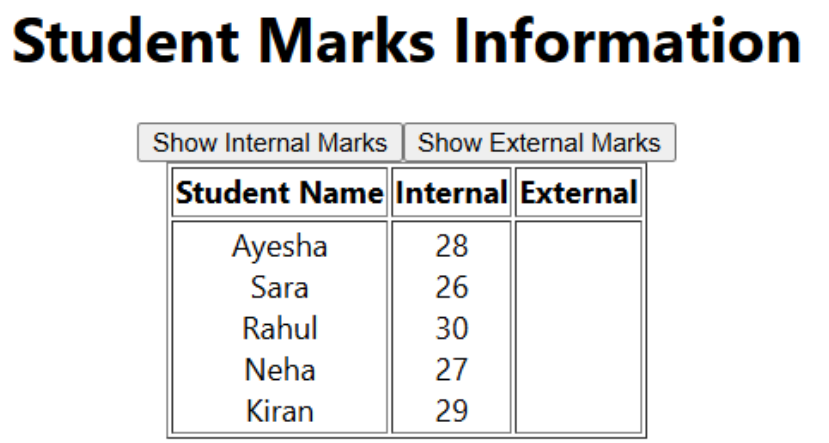
```
 import React, { Component } from 'react';
import './App.css';


class App extends Component {
  constructor(props) {
    super(props);
    this.state = {
      studentData: [],
      internalMarks: [],
      externalMarks: []
    };
  }
  componentDidMount() {
    this.loadStudents();
  }
  loadStudents() {
    fetch("http://localhost:8080/students")
      .then(res => res.json())
      .then(result => {
        this.setState({ studentData: result });
      });
  }
  showInternalMarks() {
    fetch("http://localhost:8080/imarks")
      .then(res => res.json())
      .then(result => {
        this.setState({ internalMarks: result });
```

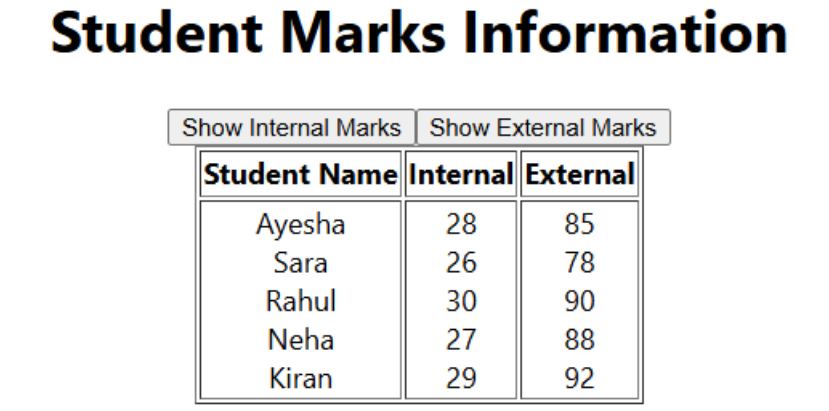
```
    });
}
showExternalMarks() {
  fetch("http://localhost:8080/emarks")
    .then(res => res.json())
    .then(result => {
      this.setState({ externalMarks: result });
    });
}
render() {
  const { studentData, internalMarks, externalMarks } = this.state;
  return (
    <div className="App">
      <h1>Student Marks Information</h1>
      <button onClick={() => this.showInternalMarks()}>
        Show Internal Marks
      </button>
      <button onClick={() => this.showExternalMarks()}>
        Show External Marks
      </button>
      <table border="1" align="center">
        <tr>
          <th>Student Name</th>
          <th>Internal</th>
          <th>External</th>
        </tr>
        <tr>
          <td>
```

```
            {studentData.map(s => (
              <div key={s.id}>{s.name}</div>
            ))}
          </td>
          <td>
            {internalMarks.map(i => (
              <div key={i.id}>{i.marks}</div>
            ))}
          </td>
          <td>
            {externalMarks.map(e => (
              <div key={e.id}>{e.marks}</div>
            ))}
          </td>
        </tr>
      </table>
    </div>
  );
 }
}

export default App;
```

**Output:**


Student Marks Information
Show Internal Marks
Show External Marks
Student Name
Internal
External
Ayesha
Sara
Rahul
Neha
Kiran


Student Marks Information
Show Internal Marks
Show External Marks
Student Name
Internal
External
Ayesha 28
Sara 26
Rahul 30
Neha 27
Kiran 29


Student Marks Information
Show Internal Marks
Show External Marks
Student Name
Internal
External
Ayesha 28 85
Sara 26 78
Rahul 30 90
Neha 27 88
Kiran 29 92

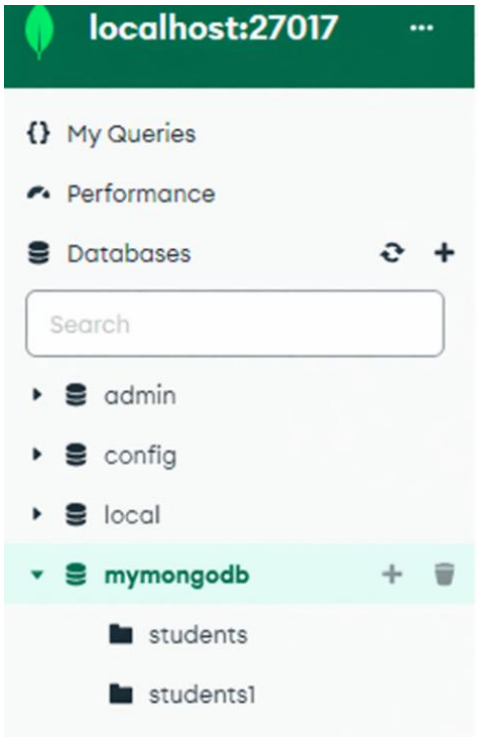
**PROGRAM-13**

**Write a Node.js program to create DB and Collections in MongoDB**

***index.js***

```
var MongoClient=require('mongodb').MongoClient;
var url="mongodb://localhost:27017/mymongodb";
MongoClient.connect(url,function(err,db){
if(err) throw WriteError;
console.log("Database created!");
db.close();
});
MongoClient.connect(url,function(err,db){
if(err) throw err;
var dbo=db.db("mymongodb");
dbo.createCollection("students1",function(err,res) {
if(err) throw err;
console.group("Collection created!");
db.close();
});
});
```

**Output:**




```
PS C:\Users\Ameena\OneDrive\Desktop\7th SEM\WT LAB
13> node index.js
Database created!
Collection created!
```

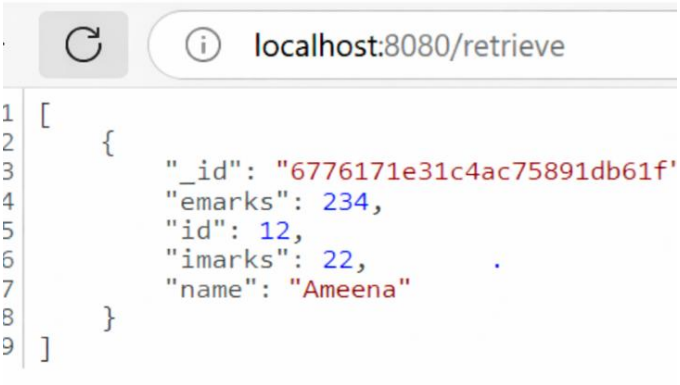
**PROGRAM-14**

**Write a react.js program to retrieve data from MongoDB**

***Restservice index.js***

```
var express = require('express');
var MongoClient = require('mongodb').MongoClient;
var cors = require('cors');
var app = express();
app.use(cors());
var port = 8080;
var url = 'mongodb://127.0.0.1:27017/mymongodb';
var databasename = 'mymongodb';
var database;
app.get('/retrieve', function (req, res) {
database.collection("students121").find({}).toArray((err, result) => {
if (err) throw err;
console.log(result);
res.send(result);
});
})
app.listen(port, ()=>{
console.log('Mongo Connection Initiated...');
MongoClient.connect(url, function (err, client) {
database = client.db(databasename);
console.log('Mongo Connected');
});
});
```

**Output:**


localhost:8080/retrieve
[
{
"_id": "6776171e31c4ac75891db61f"
"emarks": 234,
"id": 12,
"imarks": 22,
"name": "Ameena"
}
]