**WT Lab**

1, Design an Express application integrated with MongoDB that includes a user registration page and a feature to display all registered users, retrieving and rendering the user data from a MongoDB database.

reg.html

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Details</title>

</head>

<body>

    <h1 align="center">Student Registation Form</h1>

    <hr>

    <form action="http://localhost:8085/regis1" method="post">

        <fieldset>

            <legend align="center"><h2><b>Register</b></h2></legend>

            <lable for="fname">First Name: </lable>

            <input type="text" name="fname" id="fname"><br><br>

            <lable>Last Name: </lable>

            <input type="text" name="lname" id="lname"><br><br>

            <lable>User Name: </lable>

            <input type="text" name="uname" id="uname"><br><br>

            <lable>Hallticket No: </lable>

            <input type="text" name="roll" id="roll"><br><br>

            <lable>Email: </lable>

            <input type="Email" name="mail" id="mail"><br><br>

            <lable>Password: </lable>

            <input type="password" name="pass" id="pass"><br><br>

            <lable>Course: </lable>

            <select name="cname" id="cname">

                <option>AIML</option>

                <option>CSE</option>

                <option>IT</option>

            </select><br><br>

            <label>Gender: </label>

            <label>Male</label>

            <input type="radio" name="gen1" id="gen1" value="male">

            <label>Female</label>

            <input type="radio" name="gen1" id="gen1" value="female"><br><br>

        </fieldset>

        <p align="center">

            <label>Submit</label>

            <input type="submit" name="sub" id="sub">&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;

            <label>Reset</label>

            <input type="reset" name="re" id="re">

        </p>

    </form>

</body>

</html>

index.js

//step-1 create a folder

//step-2 import package.json file (npm init)

//step-3 import express and mongoose (npm i express)(npm i mongoose)

//step-4 import requried modules

let  express=require('express');

let mongoose=require('mongoose');

let PORT=8085;

let app=express();

// to understand the post data in express

app.listen(PORT,(err,data)=>{

    if(err)

    {

        console.log(`Unable to connect to server`)

    }

    else

    {

        console.log(`Server is connected on port ${PORT}`)

    }

})

//step-5 connecting to MongoDB

mongoose.connect('mongodb://127.0.0.1:27017/csmc').then(()=>{

    console.log("MongoDB Server is Connected on Port:27017")

})

//step-6 create a schema

let myschema=new mongoose.Schema({

    fname:String,

    lname:String,

    uname:String,

    roll:String,

    email:String,

    pass:String,

    course:String,

    gender:String

})

//step-7 Create a model

let mymodel=new mongoose.model('children',myschema);

//step-8 create routes

// example

// app.get('/spidey',(req,res)=>{

//     let mydata=new mymodel({fname:'spidey',lname:'koti',rno:'143'});

//     //to store the data into collection

//     mydata.save().then(()=>{

//         res.send('Data inserted')

//     });

// })

app.get('/reg',(req,res)=>{

    res.sendFile(\_\_dirname+'/reg.html')

})

//create

app.get('/regis',(req,res)=>{

    let mydata=new mymodel({

        fname:req.query.fname,

        lname:req.query.lname,

        uname:req.query.uname,

        roll:req.query.roll,

        email:req.query.mail,

        pass:req.query.pass,

        course:req.query.cname,

        gender:req.query.gen1,

    });

    //to store the data into collection

    mydata.save().then(()=>{

        res.send(`<h2>Thank you for Registering <br> <a href='/'> Click Here goto Home page </a> </h2>`);

        //res.send('Registration is successful')

    });

})

//show

app.get('/showdata',(req,res)=>{

    mymodel.find().then((users)=>{

        //res.send(data);

       let tableHTML = `<h1 align="center">User Details</h1><table border="1" align="center"><tr><th>FirstName</th><th>LastName</th><th>Username</th><th>RollNo</th><th>Paasword</th><th>Email</th><th>Course</th><th>Gender</th></tr>`;

        users.forEach((users) => {

            tableHTML += `<tr><td>${users.fname}</td><td>${users.lname}</td><td>${users.uname}</td><td>${users.roll}</td><td>${users.pass}</td><td>${users.email}</td><td>${users.course}</td><td>${users.gender}</td></tr>`;

        });

        tableHTML += '</table>';

        res.send(tableHTML);

    })

})

//read

app.get('/log',(req,res)=>{

    let user=req.query.uname;

    let pass=req.query.pass;

    mymodel.find({uname:user,pass:pass}).then((users)=>{

        if(users)

        {

            res.sendFile(\_\_dirname+'/success.html')

        }

        else

        {

            res.sendFile(\_\_dirname+'/fail.html')

        }

    })

})

app.get('/',(request,response)=>{

    response.sendFile(\_\_dirname+'/home.html');

})

app.get('/login',(request,response)=>{

    response.sendFile(\_\_dirname+'/login.html');

})

app.get('/edit',(request,response)=>{

    response.sendFile(\_\_dirname+'/edit.html');

})

//update

app.get('/ed',(req,res)=>{

    let fn1=req.query.fname;

    let ln1=req.query.lname;

    let un1=req.query.uname;

    let ps1= req.query.pass;

    let em1=req.query.mail;

    let ht1=req.query.roll;

    let cr1=req.query.cname;

    let gn1=req.query.gen1;

    mymodel.updateOne({uname:un1,pass:ps1},{$set:{fname:fn1,lname:ln1,email:em1,roll:ht1,course:cr1,gender:gn1}}).then((users)=>{

        if(users)

        {

            res.send(`<h2> Hello ${un1} <br> Your Profile is successful Changed <br> <a href='/'> Click Here goto Home page </a></h2>`);

        }

        else

        {

            res.send(`<h2>Sorry Invalid Username Or Password <br> <a href='/'> Click Here goto Home page </a> </h2>`)

        }

    })

})

app.get('/delete',(request,response)=>{

    response.sendFile(\_\_dirname+'/delete.html');

})

app.get('/del',(req,res)=>{

    let u=req.query.uname;

    let p=req.query.pass;

    mymodel.deleteOne({uname:u,pass:p}).then((users)=>{

        if(users)

        {

            res.send(`<h2>${u} is Successfully Deleted<br> <a href='/'> Click Here goto Home page </a> </h2>`);

        }

        else

        {

            res.send(`<h2>Invalid Details<br> <a href='/'> Click Here goto Home page </a> </h2>`);

        }

    })

})

//step-9 Run server

//step-10 give request from browser

home.html

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Home Page</title>

</head>

<body>

    <h1>Welcome to CRUD Applications</h1>

    <hr>

    <a href="http://localhost:8085/login">Login</a>

    <a href="http://localhost:8085/reg">Register</a>

    <a href="http://localhost:8085/reg1">Register with Post</a>

    <a href="http://localhost:8085/edit">Edit Profile</a>

    <a href="http://localhost:8085/delete">Delete Profile</a>

    <a href="http://localhost:8085/showdata">Show Users</a>

    <hr>

</body>

</html>

2,a.Write a JavaScript program that takes name, rollno, marks(sub1 and sub2) from user from a form and on form submission displays them in a tabular format, with total marks(sub1+sub2) ( like a marks sheet)

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Marks Sheet</title>

    <!-- <style>

        table {

            border-collapse: collapse;

            width: 50%;

            margin: 20px;

        }

        th, td {

            border: 1px solid #dddddd;

            text-align: left;

            padding: 8px;

        }

    </style> -->

</head>

<body>

<form id="marksForm" align="center">

    <h2><b>Marks Sheet</b></h2><br>

    <label for="name">Name:</label>

    <input type="text" id="name" name="name" required><br><br>

    <label for="rollNo">Roll Number:</label>

    <input type="text" id="rollNo" name="rollNo" required><br><br>

    <label for="sub1">Marks in Subject 1:</label>

    <input type="number" id="sub1" name="sub1" required><br><br>

    <label for="sub2">Marks in Subject 2:</label>

    <input type="number" id="sub2" name="sub2" required><br><br>

    <input type="submit" value="Submit">

</form>

<div id="result"></div>

<script>

    document.getElementById("marksForm").addEventListener("submit", function(event) {

        event.preventDefault();

        // Get form values

        var name = document.getElementById("name").value;

        var rollNo = document.getElementById("rollNo").value;

        var sub1 = parseInt(document.getElementById("sub1").value);

        var sub2 = parseInt(document.getElementById("sub2").value);

        // Calculate total marks

        var totalMarks = sub1 + sub2;

        // Display information in a table

        var resultTable = `<table border=1 align="center">`;

        resultTable += "<tr><th>Name</th><th>Roll Number</th><th>Subject 1</th><th>Subject 2</th><th>Total Marks</th></tr>";

        resultTable += "<tr><td>" + name + "</td><td>" + rollNo + "</td><td>" + sub1 + "</td><td>" + sub2 + "</td><td>" + totalMarks + "</td></tr>";

        resultTable += "</table>";

        // Display the result

        document.getElementById("result").innerHTML = resultTable;

    });

</script>

</body>

</html>

2,b.Create a Webpage of your current semester TimeTable, it should be in center (Apply rowspan,colspan when it needed)

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>CSM-C</title>

</head>

<body>

    <pre><b>                                 with Effect From</b>:11-09-2-23                                     <b>SECTION:</b>C                                        <b>ROOM NO:</b>B-413</pre>

    <table border="1" align="center" cellpadding="10">

        <tr>

            <td><b>Hour</b></td>

            <td>1</td>

            <td>2</td>

            <td rowspan="2">11:10-11:25</td>

            <td>3</td>

            <td>4</td>

            <td rowspan="2">1:05-2:00</td>

            <td>5</td>

            <td>6</td>

            <td>7</td>

        </tr>

        <tr>

            <td><b>Day</b></td>

            <td>9:30-10:20</td>

            <td>10:20-11:10</td>

            <td>11:25-12:15</td>

            <td>12:15-1:05</td>

            <td>2:00-2:50</td>

            <td>2:50-3:40</td>

            <td>3:40-4:30</td>

        </tr>

        <tr>

            <td><b>Monday</b></td>

            <td colspan="2" align="center">DLVS</td>

            <td rowspan="6"><b>Short Break</b></td>

            <td>PP</td>

            <td>SE</td>

            <td rowspan="6"><b>Lunch Break</b></td>

            <td>WT</td>

            <td colspan="2">DLVS/SE LAB</td>

        </tr>

        <tr>

            <td><b>Tuesday</b></td>

            <td colspan="2" align="center">DAA</td>

            <td>WT</td>

            <td>SE</td>

            <td>AI</td>

            <td colspan="2">DLVS/SE LAB</td>

        </tr>

        <tr>

            <td><b>Wednesday</b></td>

            <td colspan="2" align="center">DAA</td>

            <td>WT</td>

            <td>PP</td>

            <td>AI</td>

            <td colspan="2">WT LAB</td>

        </tr>

        <tr>

            <td><b>Thursday</b></td>

            <td colspan="2" align="center">DAA</td>

            <td>SE</td>

            <td>DLVS</td>

            <td>WT</td>

            <td>Mentoring</td>

            <td>PP</td>

        </tr>

        <tr>

            <td><b>Friday</b></td>

            <td colspan="2" align="center">DAA</td>

            <td>SE</td>

            <td>WT</td>

            <td>PP</td>

            <td colspan="2">DLVS</td>

        </tr>

        <tr>

            <td><b>Saturday</b></td>

            <td colspan="2" align="center">DAA</td>

            <td>PP</td>

            <td>AI</td>

            <td>SE</td>

            <td>DLVS</td>

            <td>WT</td>

        </tr>

    </table>

</body>

</html>

3. Design an Express application integrated with MongoDB that includes a user registration page and integrate a functionality to modify user data in an Express application using MongoDB, ensuring that the changes are reflected in the database.

Refer index.js for update

edit.html

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Details</title>

</head>

<body>

    <h1 align="center">Student Registation Form</h1>

    <hr>

    <form action="http://localhost:8085/ed">

        <fieldset>

            <legend align="center"><h2><b>Register</b></h2></legend>

            <lable for="fname">First Name: </lable>

            <input type="text" name="fname" id="fname"><br><br>

            <lable>Last Name: </lable>

            <input type="text" name="lname" id="lname"><br><br>

            <lable>User Name: </lable>

            <input type="text" name="uname" id="uname"><br><br>

            <lable>Hallticket No: </lable>

            <input type="text" name="roll" id="roll"><br><br>

            <lable>Email: </lable>

            <input type="Email" name="mail" id="mail"><br><br>

            <lable>Password: </lable>

            <input type="password" name="pass" id="pass"><br><br>

            <lable>Course: </lable>

            <select name="cname" id="cname">

                <option>AIML</option>

                <option>CSE</option>

                <option>IT</option>

            </select><br><br>

            <label>Gender: </label>

            <label>Male</label>

            <input type="radio" name="gen1" id="gen1">

            <label>Female</label>

            <input type="radio" name="gen1" id="gen1"><br><br>

        <p align="center">

            <label>Submit</label>

            <input type="submit" name="sub" id="sub">&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;

            <label>Reset</label>

            <input type="reset" name="re" id="re">

        </p>

    </form>

</body>

</html>

Refer home.html for update link

4, a.Write a JavaScript program to remove duplicate items from an array (ignore case sensitivity)

function removeDuplicatesIgnoreCase(arr) {

  // Create a set to store unique lowercase versions of array elements

  const uniqueSet = new Set();

  // Filter the array to remove duplicates (ignore case)

  const uniqueArray = arr.filter(item => {

    const lowercaseItem = item.toLowerCase(); // Convert to lowercase

    if (!uniqueSet.has(lowercaseItem)) {

      uniqueSet.add(lowercaseItem);

      return true;

    }

    return false;

  });

  return uniqueArray;

}

// Example usage:

const inputArray = ["apple", "Orange", "banana", "orange", "APPLE"];

const resultArray = removeDuplicatesIgnoreCase(inputArray);

console.log(resultArray);

4,b.Create a Wegpage contains all type of text formats, all elements, typography, form, table, footer, images, links, lists,

<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

  <meta name="viewport" content="width=device-width, initial-scale=1.0">

  <title>Your Webpage</title>

  <!-- Add Bootstrap CSS link -->

  <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">

  <style>

    body {

      padding-top: 60px; /\* Adjusted for fixed navbar \*/

    }

  </style>

</head>

<body>

  <!-- Navbar -->

  <nav class="navbar navbar-expand-lg navbar-dark bg-dark fixed-top">

    <a class="navbar-brand" href="#">Your Webpage</a>

    <button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#navbarNav" aria-controls="navbarNav" aria-expanded="false" aria-label="Toggle navigation">

      <span class="navbar-toggler-icon"></span>

    </button>

    <div class="collapse navbar-collapse" id="navbarNav">

      <ul class="navbar-nav ml-auto">

        <li class="nav-item">

          <a class="nav-link" href="#text">Text Formats</a>

        </li>

        <li class="nav-item">

          <a class="nav-link" href="#elements">Elements</a>

        </li>

        <li class="nav-item">

          <a class="nav-link" href="#typography">Typography</a>

        </li>

        <li class="nav-item">

          <a class="nav-link" href="#forms">Forms</a>

        </li>

        <li class="nav-item">

          <a class="nav-link" href="#tables">Tables</a>

        </li>

        <li class="nav-item">

          <a class="nav-link" href="#footer">Footer</a>

        </li>

        <li class="nav-item">

          <a class="nav-link" href="#images">Images</a>

        </li>

        <li class="nav-item">

          <a class="nav-link" href="#links">Links</a>

        </li>

        <li class="nav-item">

          <a class="nav-link" href="#lists">Lists</a>

        </li>

      </ul>

    </div>

  </nav>

  <!-- Text Formats -->

  <div class="container mt-5" id="text">

    <h2>Text Formats</h2>

    <p><strong>Bold Text</strong></p>

    <p><em>Italic Text</em></p>

    <p><u>Underlined Text</u></p>

    <p>This is <sub>subscript</sub> text.</p>

    <p>This is <sup>superscript</sup> text.</p>

  </div>

  <!-- Elements -->

  <div class="container mt-5" id="elements">

    <h2>Elements</h2>

    <p>This is a paragraph.</p>

    <blockquote class="blockquote">

      <p class="mb-0">This is a blockquote.</p>

      <footer class="blockquote-footer">Someone famous</footer>

    </blockquote>

    <code>This is inline code.</code>

    <pre><code>This is a code block.</code></pre>

  </div>

  <!-- Typography -->

  <div class="container mt-5" id="typography">

    <h2>Typography</h2>

    <h1>Heading 1</h1>

    <h2>Heading 2</h2>

    <h3>Heading 3</h3>

    <h4>Heading 4</h4>

    <h5>Heading 5</h5>

    <h6>Heading 6</h6>

  </div>

  <!-- Forms -->

  <div class="container mt-5" id="forms">

    <h2>Forms</h2>

    <form>

      <div class="form-group">

        <label for="exampleFormControlInput1">Email address</label>

        <input type="email" class="form-control" id="exampleFormControlInput1" placeholder="name@example.com">

      </div>

      <div class="form-group">

        <label for="exampleFormControlSelect1">Example select</label>

        <select class="form-control" id="exampleFormControlSelect1">

          <option>Option 1</option>

          <option>Option 2</option>

          <option>Option 3</option>

        </select>

      </div>

      <div class="form-group">

        <label for="exampleFormControlTextarea1">Example textarea</label>

        <textarea class="form-control" id="exampleFormControlTextarea1" rows="3"></textarea>

      </div>

      <button type="submit" class="btn btn-primary">Submit</button>

    </form>

  </div>

  <!-- Tables -->

  <div class="container mt-5" id="tables">

    <h2>Tables</h2>

    <table class="table">

      <thead>

        <tr>

          <th scope="col">#</th>

          <th scope="col">First</th>

          <th scope="col">Last</th>

          <th scope="col">Handle</th>

        </tr>

      </thead>

      <tbody>

        <tr>

          <th scope="row">1</th>

          <td>Mark</td>

          <td>Otto</td>

          <td>@mdo</td>

        </tr>

        <tr>

          <th scope="row">2</th>

          <td>Jacob</td>

          <td>Thornton</td>

          <td>@fat</td>

        </tr>

        <tr>

          <th scope="row">3</th>

          <td>Larry</td>

          <td>the Bird</td>

          <td>@twitter</td>

        </tr>

      </tbody>

    </table>

  </div>

  <!-- Footer -->

  <div class="container mt-5" id="footer">

    <footer class="text-center">

      <p>&copy; 2024 Your Webpage. All Rights Reserved.</p>

    </footer>

  </div>

  <!-- Images -->

  <div class="container mt-5" id="images">

    <h2>Images</h2>

    <img src="https://via.placeholder.com/300" alt="Placeholder Image" class="img-fluid">

  </div>

  <!-- Links -->

  <div class="container mt-5" id="links">

    <h2>Links</h2>

    <p><a href="https://www.example.com" target="\_blank">Visit Example.com</a></p>

  </div>

  <!-- Lists -->

  <div class="container mt-5" id="lists">

    <h2>Lists

5,a.Write a JavaScript program to find the most frequent item of an array

function findMostFrequentItem(arr) {

  // Create an object to store the frequency of each element

  const frequencyMap = {};

  // Iterate through the array and count the frequency of each element

  arr.forEach(item => {

    frequencyMap[item] = (frequencyMap[item] || 0) + 1;

  });

  // Find the element with the maximum frequency

  let mostFrequentItem;

  let maxFrequency = 0;

  for (const key in frequencyMap) {

    if (frequencyMap[key] > maxFrequency) {

      mostFrequentItem = key;

      maxFrequency = frequencyMap[key];

    }

  }

  return mostFrequentItem;

}

// Example usage:

const array = [1, 2, 3, 2, 2, 4, 5, 2, 6];

const mostFrequent = findMostFrequentItem(array);

console.log(`Most frequent item: ${mostFrequent}`);

b.Create a Responsive E-Commerce website for mobiles using bootstrap Cards & Grids

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap.min.css" rel="stylesheet" integrity="sha384-T3c6CoIi6uLrA9TneNEoa7RxnatzjcDSCmG1MXxSR1GAsXEV/Dwwykc2MPK8M2HN" crossorigin="anonymous">

</head>

<body>

    <div class="container">

        <h1 class="text-center">Card Example </h1> <hr>

        <form action="">

            <div class="row">

                <div class="col-sm-12 col-md-6 col-lg-3">

                    <div class="card">

                        <img src="./Oppo-A57-Smart-Phones-492850647-i-492850647-1-1200Wx1200H-300Wx300H.jpg">

                        <div class="card-body">

                            <div class="card-title"> <b>Oppo 5.X</b></div>

                            <div class="card-text"> Lorem ipsum dolor sit amet consectetur adipisicing elit. Animi veniam sed impedit, repellendus dolore quae provident, quisquam voluptate quos molestiae placeat rerum ipsam, in id unde asperiores est sint tempora!</div>

                            <h1 class="btn btn-info" >Add to card</h1>

                        </div>

                    </div>

                </div>

                <div class="col-sm-12 col-md-6 col-lg-3">

                    <div class="card">

                        <img src="./1663134441\_w8Q.jpg" >

                        <div class="card-body">

                            <div class="card-title"> <b>Oppo 5.X</b></div>

                            <div class="card-text"> Lorem ipsum dolor sit amet consectetur adipisicing elit. Animi veniam sed impedit, repellendus dolore quae provident, quisquam voluptate quos molestiae placeat rerum ipsam, in id unde asperiores est sint tempora!</div>

                            <h1 class="btn btn-info" >Add to card</h1>

                        </div>

                    </div>

                </div>

                <div class="col-sm-12 col-md-6 col-lg-3">

                    <div class="card">

                        <img src="./Oppo-A57-Smart-Phones-492850647-i-492850647-1-1200Wx1200H-300Wx300H.jpg">

                        <div class="card-body">

                            <div class="card-title"> <b>Oppo 5.X</b></div>

                            <div class="card-text"> Lorem ipsum dolor sit amet consectetur adipisicing elit. Animi veniam sed impedit, repellendus dolore quae provident, quisquam voluptate quos molestiae placeat rerum ipsam, in id unde asperiores est sint tempora!</div>

                            <h1 class="btn btn-info" >Add to card</h1>

                        </div>

                    </div>

                </div>

                <div class="col-sm-12 col-md-6 col-lg-3">

                    <div class="card">

                        <img src="./1663134441\_w8Q.jpg">

                        <div class="card-body">

                            <div class="card-title"> <b>Oppo 5.X</b></div>

                            <div class="card-text"> Lorem ipsum dolor sit amet consectetur adipisicing elit. Animi veniam sed impedit, repellendus dolore quae provident, quisquam voluptate quos molestiae placeat rerum ipsam, in id unde asperiores est sint tempora!</div>

                            <h1 class="btn btn-info" >Add to card</h1>

                        </div>

                    </div>

                </div>

                <div class="col-sm-12 col-md-6 col-lg-3">

                    <div class="card">

                        <img src="./Oppo-A57-Smart-Phones-492850647-i-492850647-1-1200Wx1200H-300Wx300H.jpg">

                        <div class="card-body">

                            <div class="card-title"> <b>Oppo 5.X</b></div>

                            <div class="card-text"> Lorem ipsum dolor sit amet consectetur adipisicing elit. Animi veniam sed impedit, repellendus dolore quae provident, quisquam voluptate quos molestiae placeat rerum ipsam, in id unde asperiores est sint tempora!</div>

                            <h1 class="btn btn-info" >Add to card</h1>

                        </div>

                    </div>

                </div>

                <div class="col-sm-12 col-md-6 col-lg-3">

                    <div class="card">

                        <img src="./1663134441\_w8Q.jpg">

                        <div class="card-body">

                            <div class="card-title"> <b>Oppo 5.X</b></div>

                            <div class="card-text"> Lorem ipsum dolor sit amet consectetur adipisicing elit. Animi veniam sed impedit, repellendus dolore quae provident, quisquam voluptate quos molestiae placeat rerum ipsam, in id unde asperiores est sint tempora!</div>

                            <h1 class="btn btn-info" >Add to card</h1>

                        </div>

                    </div>

                </div>

            </div>

        </form>

    </div>

</body>

</html>

6. Design an Express application integrated with MongoDB that includes a user registration page and integrating a delete user page, ensuring that user data is removed from the database upon deletion.

Refer index.js for deletion

delete.html

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Details</title>

</head>

<body>

    <h2>Enter the Username to delete the details</h2>

    <form action="http://localhost:8085/del">

        <lable>User Name: </lable>

        <input type="text" name="uname" id="uname"><br><br>

        <lable>Password: </lable>

        <input type="password" name="pass" id="pass"><br><br>

        <label>Delete</label>

        <input type="submit" name="sub" id="sub">

    </form>

</body>

</html>

Refer home.html for delete link

7,a.Write a JavaScript program to read the employee data(name,id,salary and commision) from form and display the data in a table with total salary(salary+commision) (HTML page)

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Employee</title>

</head>

<body>

    <form id="employeeForm" align="center">

        <h2>Employee Data Form</h2>

      <label for="name">Name:</label>

      <input type="text" id="name" name="name" required><br><br>

      <label for="id">ID:</label>

      <input type="text" id="id" name="id" required><br><br>

      <label for="salary">Salary:</label>

      <input type="number" id="salary" name="salary" required><br><br>

      <label for="commission">Commission:</label>

      <input type="number" id="commission" name="commission" required><br><br>

      <input type="submit" value="Submit">

    </form>

<div id="result"></div>

<script>

    document.getElementById("employeeForm").addEventListener("submit", function(event) {

        event.preventDefault();

        // Get form values

        const name = document.getElementById("name").value;

        const id = document.getElementById("id").value;

        const salary = parseFloat(document.getElementById("salary").value);

        const commission = parseFloat(document.getElementById("commission").value);

        // Calculate total salary

        const totalSalary = salary + commission;

        // Calculate total marks

        // Display information in a table

        var resultTable = `<table border=1 align="center">`;

        resultTable += "<tr><th>Name</th><th>ID</th><th>Salary</th><th>Commission</th><th>Total salary</th></tr>";

        resultTable += "<tr><td>" + name + "</td><td>" + id + "</td><td>" + salary + "</td><td>" + commission + "</td><td>" + totalSalary + "</td></tr>";

        resultTable += "</table>";

        // Display the result

        document.getElementById("result").innerHTML = resultTable;

    });

</script>

</body>

</html>

7,b.Create a Static Student Registration form using set of form components like text fields, passwords, radio buttons, check boxes, textarea, selections, formfield with legend, etc.

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Details</title>

</head>

<body>

    <h1 align="center">Student Registation Form</h1>

    <hr>

    <form>

        <fieldset>

            <legend align="center"><h2><b>Register</b></h2></legend>

            <lable for="fname">First Name: </lable>

            <input type="text" name="fname" id="fname"><br><br>

            <lable>Last Name: </lable>

            <input type="text" name="lname" id="lname"><br><br>

            <lable>Hallticket No: </lable>

            <input type="text" name="roll" id="roll"><br><br>

            <lable>Email: </lable>

            <input type="Email" name="mail" id="mail"><br><br>

            <lable>Password: </lable>

            <input type="password" name="pass" id="pass"><br><br>

            <lable>Confirm password </lable>

            <input type="password" name="lname" id="lname"><br><br>

            <lable>Course: </lable>

            <select name="cname" id="cname">

                <option>AIML</option>

                <option>CSE</option>

                <option>IT</option>

            </select><br><br>

            <label>Gender: </label>

            <label>Male</label>

            <input type="radio" name="gen1" id="gen1">

            <label>Female</label>

            <input type="radio" name="gen1" id="gen1"><br><br>

            <label>Favorite color:</label>

            <input type="color" name="c" id="c"><br><br>

            <label>I am Spiderman</label>

            <input type="checkbox" name="b" id="b"><br><br>

        </fieldset>

        <p align="center">

            <label>Submit</label>

            <input type="submit" name="sub" id="sub">&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;

            <label>Reset</label>

            <input type="reset" name="re" id="re">

        </p>

    </form>

</body>

</html>

8, a.Write a JavaScript program which accepts a string as input and swaps the case of each character. For example, if you input 'The Quick Brown Fox' the output should be 'tHEqUICKbROWNfOX'.

function swapCase(inputString) {

  return inputString.replace(/[a-zA-Z]/g, function(char) {

    return char === char.toUpperCase() ? char.toLowerCase() : char.toUpperCase();

  });

}

// Example usage:

const inputString = 'The Quick Brown Fox';

const swappedString = swapCase(inputString);

console.log(`Original String: ${inputString}`);

console.log(`Swapped String: ${swappedString}`);

b.Create menubar for your index.html webpage that contains the menu items like Home, Projects, Education, Assignments

with bootstrap

<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

  <meta name="viewport" content="width=device-width, initial-scale=1.0">

  <title>Your Webpage with Bootstrap</title>

  <!-- Add Bootstrap CSS link -->

  <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">

</head>

<body>

  <nav class="navbar navbar-expand-lg navbar-light bg-light">

    <a class="navbar-brand" href="#">Your Webpage</a>

    <button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#navbarNav" aria-controls="navbarNav" aria-expanded="false" aria-label="Toggle navigation">

      <span class="navbar-toggler-icon"></span>

    </button>

    <div class="collapse navbar-collapse" id="navbarNav">

      <ul class="navbar-nav">

        <li class="nav-item">

          <a class="nav-link" href="#home">Home</a>

        </li>

        <li class="nav-item">

          <a class="nav-link" href="#projects">Projects</a>

        </li>

        <li class="nav-item">

          <a class="nav-link" href="#education">Education</a>

        </li>

        <li class="nav-item">

          <a class="nav-link" href="#assignments">Assignments</a>

        </li>

      </ul>

    </div>

  </nav>

  <div class="container mt-3">

    <!-- Your webpage content goes here -->

    <p>Welcome to your webpage!</p>

  </div>

  <!-- Add Bootstrap JS and Popper.js scripts (required for Bootstrap functionality) -->

  <script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"></script>

  <script src="https://cdn.jsdelivr.net/npm/@popperjs/core@2.11.6/dist/umd/popper.min.js"></script>

  <script src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js"></script>

</body>

</html>

Or

Without bootstrap

<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

  <meta name="viewport" content="width=device-width, initial-scale=1.0">

  <title>Your Webpage</title>

  <style>

    body {

      font-family: Arial, sans-serif;

      margin: 0;

      padding: 0;

    }

    header {

      background-color: #333;

      padding: 15px;

      text-align: center;

    }

    nav {

      background-color: #eee;

      overflow: hidden;

    }

    nav a {

      float: left;

      display: block;

      color: #333;

      text-align: center;

      padding: 14px 16px;

      text-decoration: none;

    }

    nav a:hover {

      background-color: #ddd;

      color: #333;

    }

  </style>

</head>

<body>

  <header>

    <h1>Your Webpage</h1>

  </header>

  <nav>

    <a href="#home">Home</a>

    <a href="#projects">Projects</a>

    <a href="#education">Education</a>

    <a href="#assignments">Assignments</a>

  </nav>

  <div>

    <!-- Your webpage content goes here -->

    <p>Welcome to your webpage!</p>

  </div>

</body>

</html>

9, Design an Express application integrated with MongoDB that includes a user registration page and a login page to securely store user credentials and authenticate users.

Refer index.js for login code

login.html

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

    <form action="http://localhost:8085/log">

        <lable for="uname">User Name: </lable>

        <input type="text" name="uname" id="uname"><br><br>

        <lable>Password: </lable>

        <input type="password" name="pass" id="pass"><br><br>

        <label>Submit</label>

        <input type="submit" name="sub" id="sub">

    </form>

</body>

</html>

Refer home.html for links

success.html

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

    <h1>Your Login is Success</h1>

    <a href="http://localhost:8085/">Home</a>

</body>

</html>

fail.html

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

    <h1>Your Login is Failed</h1>

    <a href="http://localhost:8085/">Home</a>

</body>

</html>