**EXPERIMENT 9**

**AIM:** Form handling using express and node js.

1. **Steps to install nodejs in Windows**
2. **Download Node.js Installer:**
   * Go to the official Node.js website.
   * Link - https://nodejs.org/en/download/source-code
   * Download the latest stable version for Windows (use the LTS version if you're unsure).
3. **Run the Installer:**
   * Once the download is complete, run the installer.
   * Follow the prompts in the installer (accept the license agreement, choose the installation directory, etc.).
   * Make sure to check the box that says **"Automatically install the necessary tools"** (includes npm).
4. **Check Installation:**
   * Open **Command Prompt** or **PowerShell**.

Run the following command to check if Node.js and npm were installed successfully:  
bash  
Copy code  
node -v

npm -v

These commands should display the installed versions of Node.js and npm.

**B. Steps to create the project:**

**Initialize Node.js Project:** Run these commands in your terminal:  
  
mkdir form-handling-example

cd form-handling-example

npm init -y

**Install Express:**npm install express

**Project Structure:** Create the following structure:  
  
form-handling-example/

├── public/

│ └── style.css

├── views/

│ └── index.html

├── app.js

└── package.json

**1. app.js (Express Application)**

This is your main Node.js application:

const express = require('express');

const path = require('path');

const bodyParser = require('body-parser');

const app = express();

const port = 3000;

// Middleware to parse the form data

app.use(bodyParser.urlencoded({ extended: false }));

// Serve static files (for serving CSS)

app.use(express.static(path.join(\_\_dirname, 'public')));

// Route to display the form

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

res.sendFile(path.join(\_\_dirname, 'views', 'index.html'));

});

// Route to handle form submission

app.post('/submit-form', (req, res) => {

const { name, email, contact, classname, Branch, Semester, StudentHallticketNumber, ExamDate} = req.body;

res.send(`<h1>Form Submitted</h1>

<p>Name: ${name}</p>

<p>Email: ${email}</p>

<p>Contact: ${contact}</p>

<p>Class: ${classname}</p>

<p>Branch: ${Branch}</p>

<p>Semester: ${Semester}</p>

<p>Student Hallticket Number: ${StudentHallticketNumber}</p>

<p>Exam Date: ${ExamDate}</p>`);

});

// Start the server

app.listen(port, () => {

console.log(`Server running at http://localhost:${port}`);

});

**2. index.html (Form Template)**

This is the form that users will interact with:

**<!DOCTYPE html>**

**<html lang="en">**

**<head>**

**<meta charset="UTF-8">**

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

**<title>Form Handling with Express</title>**

**<link rel="stylesheet" href="/style.css">**

**</head>**

**<body>**

**<div class="form-container">**

**<h1>Exam Registration Form</h1>**

**<form action="/submit-form" method="POST">**

**<label for="name">Student Name:</label>**

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

**<br>**

**<label for="email">Email:</label>**

**<input type="email" id="email" name="email" required>**

**<br>**

**<label for="contact">Contact:</label>**

**<input type="text" id="contact" name="contact" required>**

**<br>**

**<label for="Class">Class:</label>**

**<input type="text" id="class" name="classname" required>**

**<br>**

**<label for="Branch">Branch:</label>**

**<input type="text" id="Branch" name="Branch" required>**

**<br>**

**<label for="Semester">Semester:</label>**

**<input type="number" id="Semester" name="Semester" required>**

**<br>**

**<label for="Student hallticket number">Student Hallticket Number:</label>**

**<input type="text" id="Student Hallticket Number" name="StudentHallticketNumber" required>**

**<br>**

**<label for="Exam Date">Exam Date:</label>**

**<input type="date" id="Exam Date" name="ExamDate" required>**

**<br>**

**<button type="submit">Submit</button>**

**</form>**

**</div>**

**</body>**

**</html>**

**3. style.css (External Stylesheet)**

This is the CSS file to style the form and set the background color:

**body {**

**background-color: #fffc41;**

**font-family: Arial, sans-serif;**

**}**

**.form-container {**

**width: 500px;**

**margin: 200px auto;**

**padding: 35px;**

**background-color: rgb(255, 134, 64);**

**box-shadow: 10px 10px lightblue;**

**}**

**h1 {**

**text-align: center;**

**}**

**label {**

**display: block;**

**margin: 10px 0 5px;**

**color: rgb(4, 0, 255);**

**}**

**input {**

**width: 100%;**

**padding: 8px;**

**margin-bottom: 10px;**

**}**

**button {**

**width: 100%;**

**padding: 10px;**

**background-color: #09ff00;**

**color: rgb(255, 0, 0);**

**border: none;**

**cursor: pointer;**

**}**

**button:hover {**

**background-color: #b30095;**

**}**

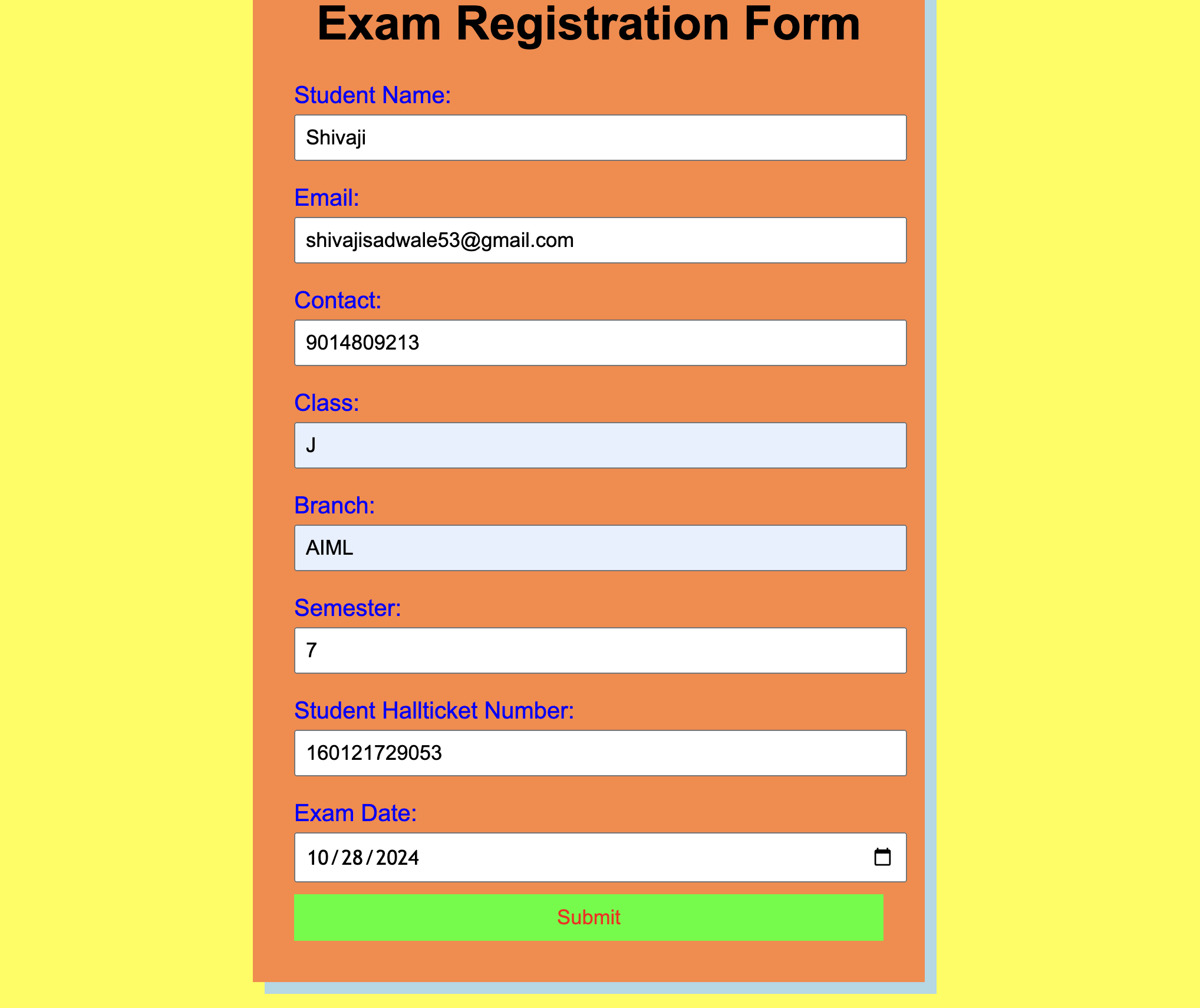
**4. Run the Application:**

1. Save the files.

Start the server by running:  
  
node app.js

1. Open your browser and navigate to http://localhost:3000. You will see a form with a background color applied from the external CSS.
2. Submit the form, and you should see a confirmation page displaying the form data.

**OUTPUT:**

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