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ROLL NO. : 18

SEM : 7th

SUBJECT : FULL STACK – 705

ASSIGNMENT : 2

1) - Develop a user registration form and store its data in any database using Express. Form should also contain file upload (single, multiple) with validations.

- In a page list all the uploaded files and allow the user to download that file using Express. Develop route for file download.

User.js

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

const userSchema = new mongoose.Schema({
   username: { type: String, required: true },
   email: { type: String, required: true },
   files: [{ type: String }]
});

module.exports = mongoose.model('User', userSchema);
```

app.js

```
const express = require('express');
const mongoose = require('mongoose');
const multer = require('multer');
const path = require('path');

const app = express();
const PORT = process.env.PORT || 3000;
```

```
// Update this with your actual connection string
const mongoURI = 'mongodb://localhost:27017/upload';

mongoose.connect(mongoURI, { useNewUrlParser: true, useUnifiedTopology: true })
  .then(() => console.log('MongoDB connected!'))
  .catch(err => console.error('MongoDB connection error:', err));

// Middleware
app.use(express.urlencoded({ extended: true }));
app.use('/uploads', express.static('uploads')); // Serve uploaded files
app.set('view engine', 'ejs');

app.listen(PORT, () => {
  console.log(`Server is running on http://localhost:${PORT}`);
});
const storage = multer.diskStorage({
  destination: (req, file, cb) => {
    cb(null, 'uploads/');
  },
  filename: (req, file, cb) => {
    cb(null, Date.now() + path.extname(file.originalname)); // Appending extension
  }
});

const upload = multer({
  storage: storage,
  limits: { fileSize: 1 * 1024 * 1024 }, // Limit file size to 1MB
  fileFilter: (req, file, cb) => {
    const filetypes = /jpeg|jpg|png|gif|pdf/;
```

```
        const mimetype = filetypes.test(file.mimetype);
        const extname = filetypes.test(path.extname(file.originalname).toLowerCase());
        if (mimetype && extname) {
            return cb(null, true);
        }
        cb("Error: File type not supported");
    }
});
const User = require('./User');

// Render registration form
app.get('/register', (req, res) => {
    res.render('register');
});

// Handle user registration
app.post('/register', upload.array('files'), async (req, res) => {
    const { username, email } = req.body;
    const files = req.files.map(file => file.filename);

    const user = new User({ username, email, files });
    await user.save();
    res.redirect('/files');
});

// List uploaded files
app.get('/files', async (req, res) => {
    const users = await User.find();
    res.render('files', { users });
```

```
});

// Download file
app.get('/files/download/:filename', (req, res) => {
  const file = path.join(__dirname, 'uploads', req.params.filename);
  res.download(file);
});
```

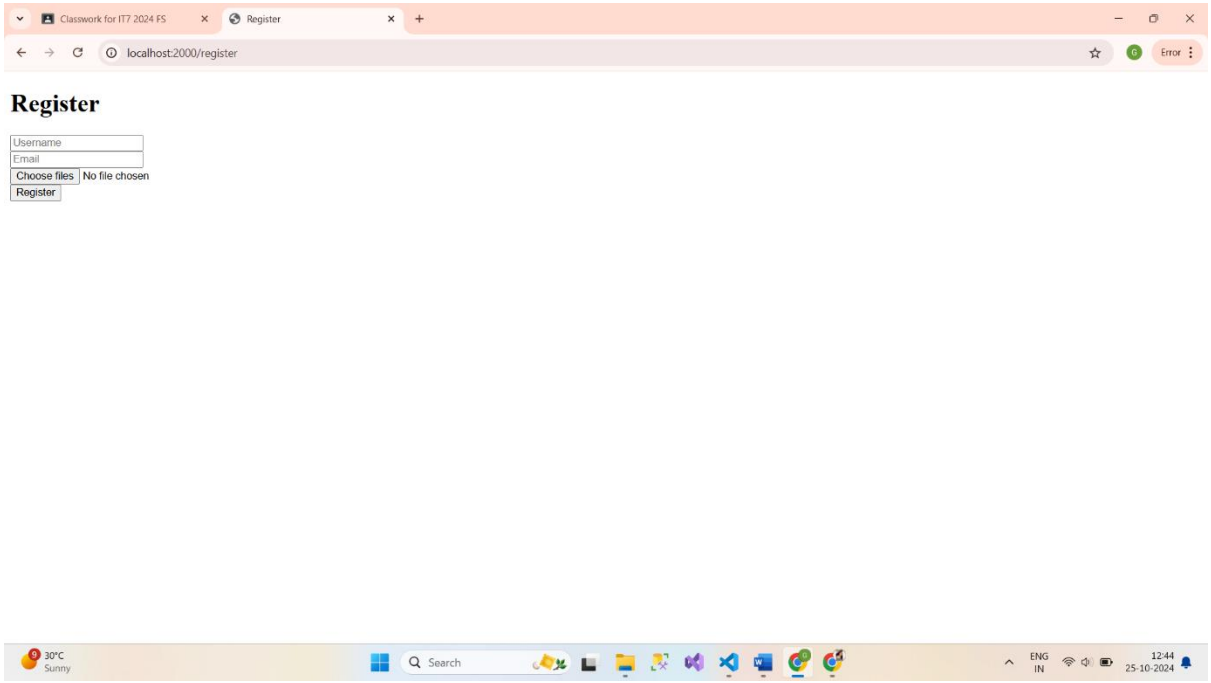
files.ejs

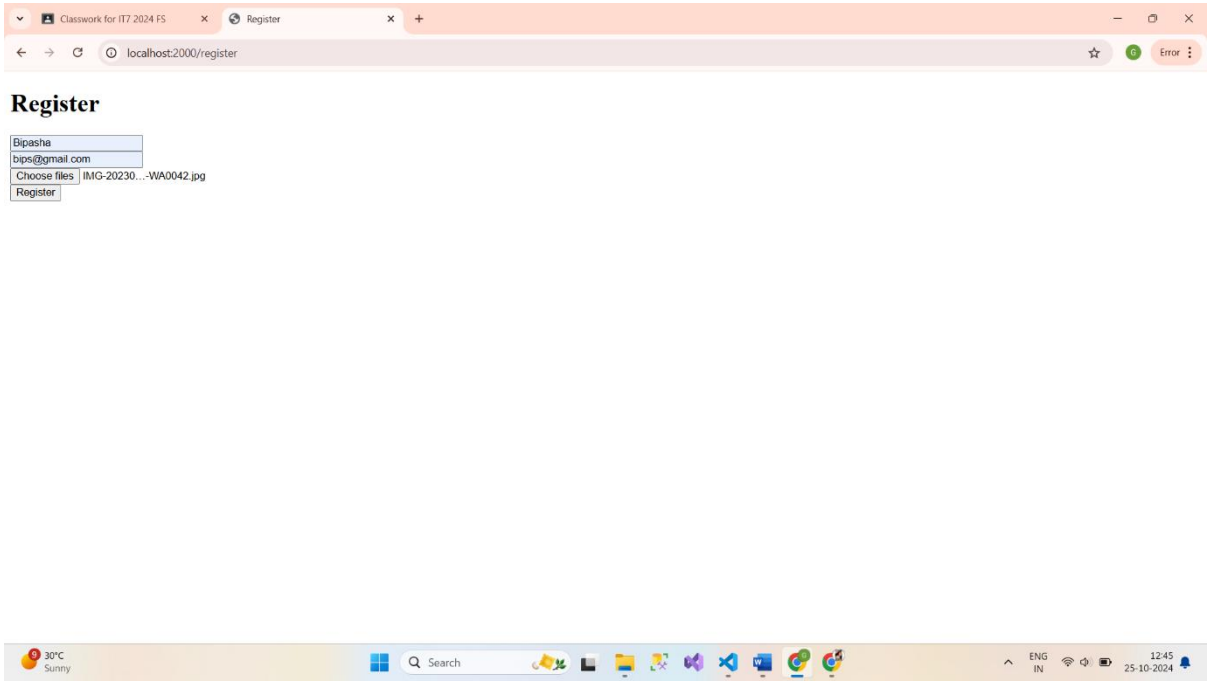
```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Uploaded Files</title>
</head>
<body>
  <h1>Uploaded Files</h1>
  <ul>
    <% users.forEach(user => { %>
      <li><strong><%= user.username %></strong> (<%= user.email %>):
        <% user.files.forEach(file => { %>
          <a href="/files/download/<%= file %>"><%= file %></a>
        <% }) %>
      </li>
    <% }) %>
  </ul>
</body>
</html>
```

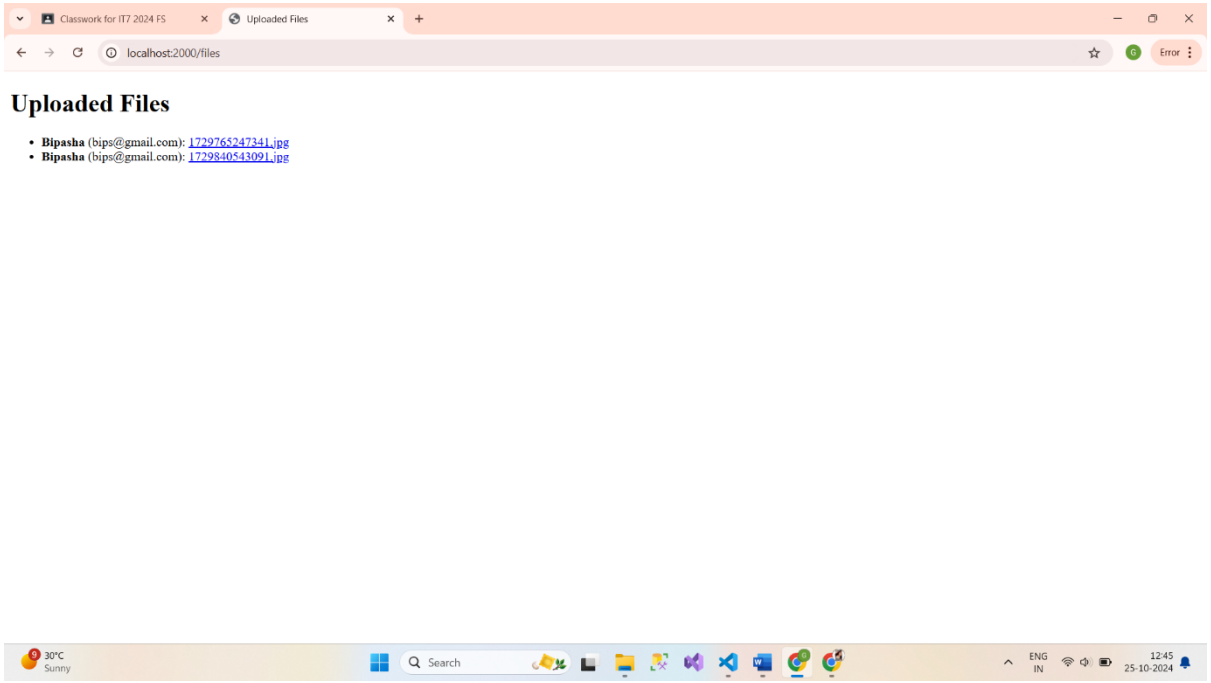
Register.ejs

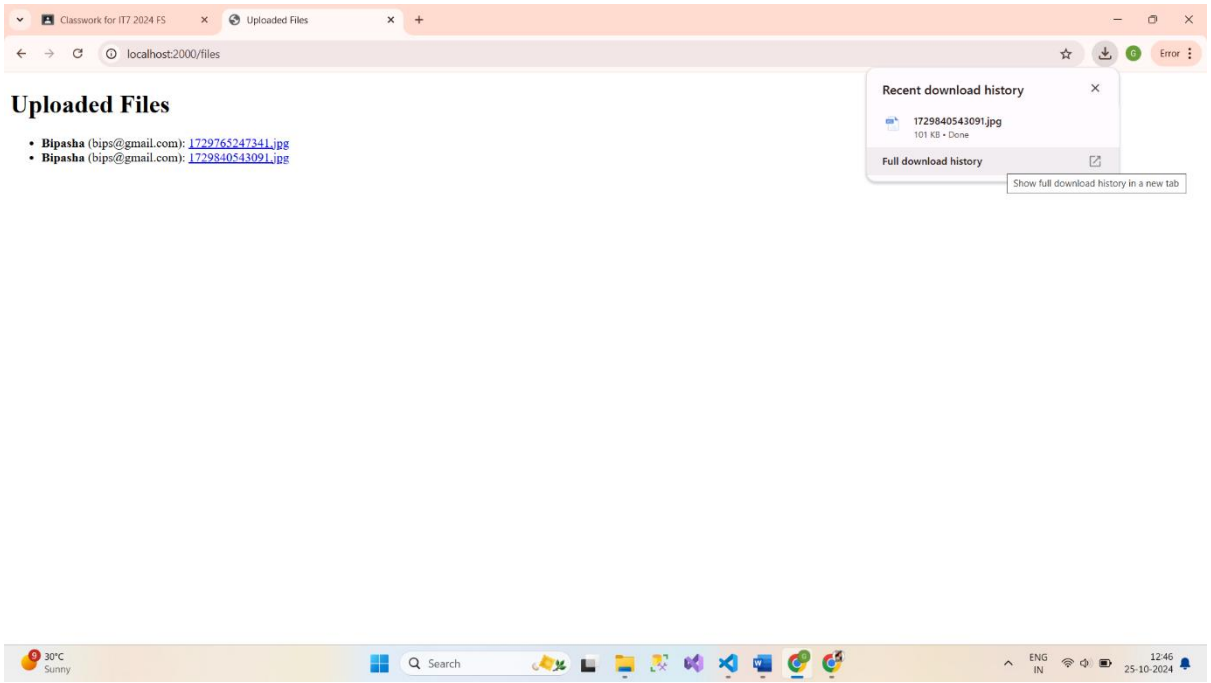
```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Register</title>
</head>
<body>
  <h1>Register</h1>
  <form action="/register" method="POST" enctype="multipart/form-data">
    <input type="text" name="username" placeholder="Username" required><br>
    <input type="email" name="email" placeholder="Email" required><br>
    <input type="file" name="files" multiple required><br>
    <button type="submit">Register</button>
  </form>
</body>
</html>
```

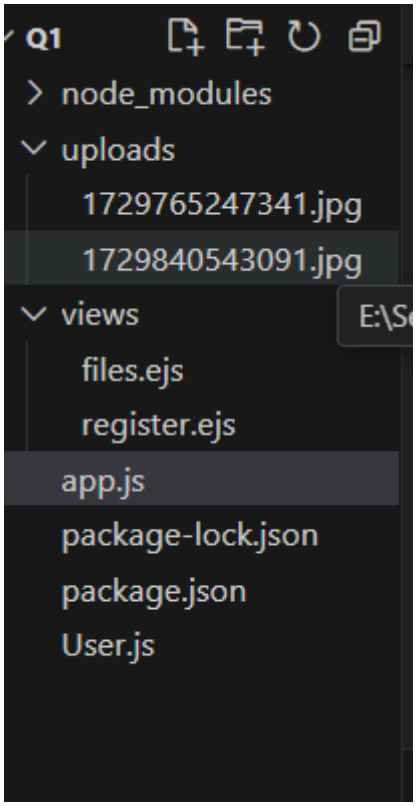
Output :-


Classwork for IT7 2024 FS
Register
localhost:2000/register
Error
Register
Username
Email
Choose files
No file chosen
Register
30°C
Sunny
Search
ENG
IN
12:44
25-10-2024


Classwork for IT7 2024 FS
Register
localhost:2000/register
Error
Register
Bipasha
bips@gmail.com
Choose files
IMG-20230...-WA0042.jpg
Register
30°C
Sunny
Search
ENG
IN
12:45
25-10-2024


Classwork for IT7 2024 FS
Uploaded Files
localhost:2000/files
Error
Uploaded Files
Bipasha (bips@gmail.com): 1729765247341.jpg
Bipasha (bips@gmail.com): 1729840543091.jpg
30°C
Sunny
Search
ENG
IN
12:45
25-10-2024


Classwork for IT7 2024 FS
Uploaded Files
localhost:2000/files
Error
Uploaded Files
Bipasha (bips@gmail.com): 1729765247341.jpg
Bipasha (bips@gmail.com): 1729840543091.jpg
Recent download history
1729840543091.jpg
101 KB • Done
Full download history
Show full download history in a new tab
30°C
Sunny
Search
ENG
IN
12:46
25-10-2024


Q1
node_modules
uploads
1729765247341.jpg
1729840543091.jpg
views
files.ejs
register.ejs
app.js
package-lock.json
package.json
User.js

2) Express Login application with file session store.

app.js

```
const express = require('express');
const session = require('express-session');
const flash = require('connect-flash');
const bodyParser = require('body-parser');
const path = require('path');

const app = express();
const PORT = process.env.PORT || 3000;

// Simple in-memory user store for demonstration purposes
const users = [{ username: 'Bipasha', password: 'BIPS' }];

// Setup session
app.use(session({
   secret: 'secret_key', // Replace with a strong secret in production
   resave: false,
   saveUninitialized: true,
   cookie: { maxAge: 60000 } // 1 minute
}));

// Flash messages middleware
app.use(flash());

// Middleware
app.use(bodyParser.urlencoded({ extended: true }));
```

```
app.set('view engine', 'ejs');
app.use(express.static(path.join(__dirname, 'public'))); // Serve static files

// Render login form
app.get('/login', (req, res) => {
  res.render('login', { messages: req.flash('error') });
});

// Handle login
app.post('/login', (req, res) => {
  const { username, password } = req.body;

  // Check user credentials
  const user = users.find(u => u.username === username && u.password === password);
  if (user) {
    req.session.user = user;
    req.flash('success', 'Logged in successfully!');
    return res.redirect('/dashboard');
  }

  req.flash('error', 'Invalid username or password');
  res.redirect('/login');
});

// Render dashboard
app.get('/dashboard', (req, res) => {
  if (!req.session.user) {
    req.flash('error', 'Please log in first');
    return res.redirect('/login');
```

```
    }
    res.render('dashboard', { user: req.session.user });
});

// Logout
// Logout
app.get('/logout', (req, res) => {
    req.flash('success', 'Logged out successfully'); // Set flash message before destroying session
    req.session.destroy(err => {
        if (err) {
            return res.redirect('/dashboard'); // Handle session destruction error
        }
        res.redirect('/login'); // Redirect to login after session is destroyed
    });
});

app.listen(PORT, () => {
    console.log(`Server is running on http://localhost:${PORT}`);
});
```

dashboard.ejs

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Dashboard</title>
</head>
```

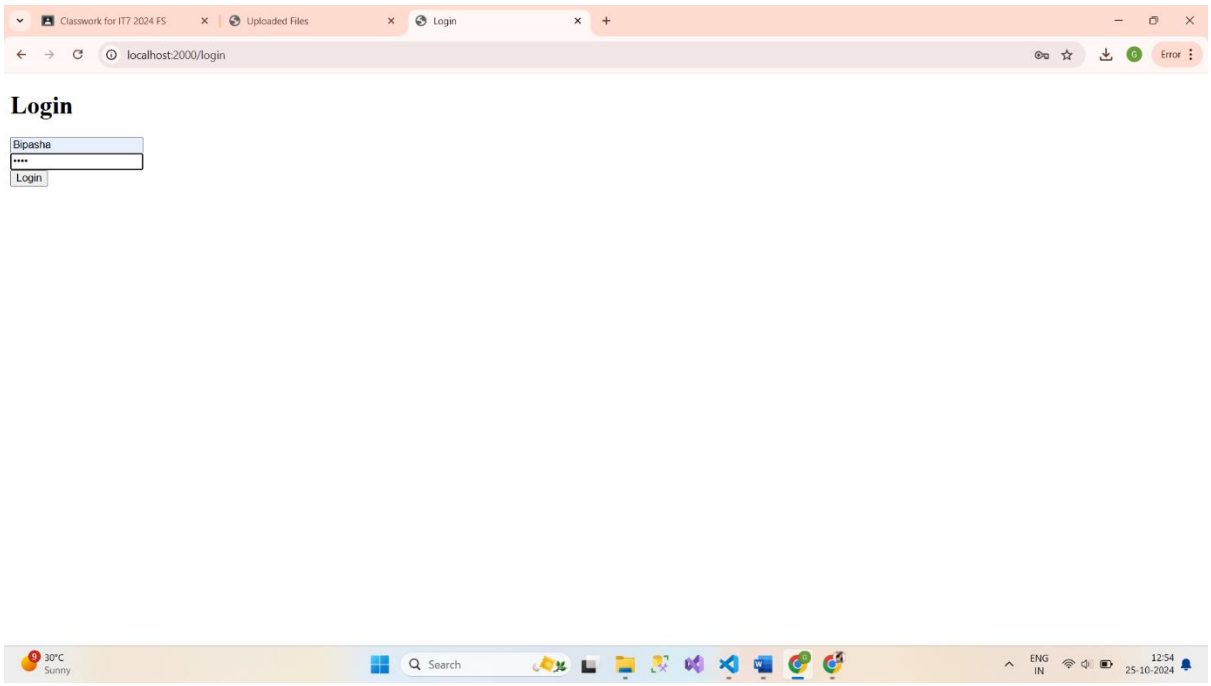
```
<body>
    <h1>Welcome, <%= user.username %></h1>
    <a href="/logout">Logout</a>
</body>
</html>
```

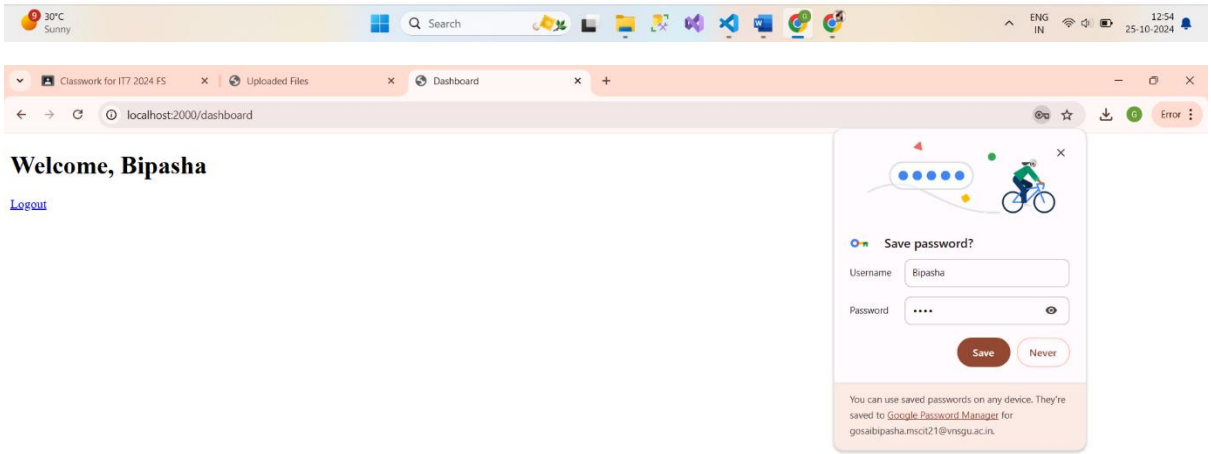
login.ejs

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Login</title>
</head>
<body>
    <h1>Login</h1>
    <% if (messages.length) { %>
        <ul>
            <% messages.forEach(msg => { %>
                <li><%= msg %></li>
            <% }) %>
        </ul>
    <% } %>
    <form action="/login" method="POST">
        <input type="text" name="username" placeholder="Username" required><br>
        <input type="password" name="password" placeholder="Password" required><br>
        <button type="submit">Login</button>
    </form>
</body>
```

</html>

Output :-


Classwork for IT7 2024 FS
Uploaded Files
Login
localhost:2000/login
Error
Login
Bipasha
Login


Classwork for IT7 2024 FS
Uploaded Files
Dashboard
localhost:2000/dashboard
Error
Welcome, Bipasha
Logout
Save password?
Username
Bipasha
Password
Save
Never
You can use saved passwords on any device. They're saved to Google Password Manager for gosaibipasha.mscit21@vnsgu.ac.in.

3) Express Login application with redis session store.

app.js

```
const express = require('express');
const session = require('express-session');
const RedisStore = require('connect-redis').default; // Import Redis store
const flash = require('connect-flash');
const bodyParser = require('body-parser');
const redis = require('redis');
const path = require('path');

const app = express();
const PORT = process.env.PORT || 8000;

// Configure Redis client
// const redisClient = redis.createClient();
const redisClient = redis.createClient({
   host: '127.0.0.1', // Change if necessary
   port: 6379 // Change if necessary
});

redisClient.on('error', (err) => console.log('Redis Client Error', err));

// Simple in-memory user store for demonstration purposes
const users = [{ username: 'testuser', password: 'password123' }];

// Setup session with Redis store
app.use(session({
```

```
    store: new RedisStore({ client: redisClient }),
    secret: 'secret_key', // Replace with a strong secret in production
    resave: false,
    saveUninitialized: false,
    cookie: { maxAge: 60000 } // 1 minute
}));

// Flash messages middleware
app.use(flash());

// Middleware
app.use(bodyParser.urlencoded({ extended: true }));
app.set('view engine', 'ejs');
app.use(express.static(path.join(__dirname, 'public'))); // Serve static files

// Render login form
app.get('/login', (req, res) => {
    res.render('login', { messages: req.flash('error') });
});

// Handle login
app.post('/login', (req, res) => {
    const { username, password } = req.body;

    // Check user credentials
    const user = users.find(u => u.username === username && u.password === password);
    if (user) {
        req.session.user = user;
        req.flash('success', 'Logged in successfully!');
```

```
        return res.redirect('/dashboard');
    }

    req.flash('error', 'Invalid username or password');
    res.redirect('/login');
});

// Render dashboard
app.get('/dashboard', (req, res) => {
    if (!req.session.user) {
        req.flash('error', 'Please log in first');
        return res.redirect('/login');
    }
    res.render('dashboard', { user: req.session.user });
});

// Logout
app.get('/logout', (req, res) => {
    req.flash('success', 'Logged out successfully');
    req.session.destroy(err => {
        if (err) {
            return res.redirect('/dashboard');
        }
        res.redirect('/login');
    });
});

// Start the server
app.listen(PORT, () => {
```

```
    console.log(`Server is running on http://localhost:${PORT}`);
});

// Connect to Redis
(async () => {
    try {
        await redisClient.connect();
        console.log('Connected to Redis');
    } catch (err) {
        console.error('Redis Client Error', err);
    }
})();
```

dashboard.ejs

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Dashboard</title>
</head>
<body>
    <h1>Welcome, <%= user.username %></h1>
    <a href="/logout">Logout</a>
</body>
</html>
```

login.ejs

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Login</title>
</head>
<body>
  <h1>Login</h1>
  <% if (messages.length) { %>
    <ul>
      <% messages.forEach(msg => { %>
        <li><%= msg %></li>
      <% }) %>
    </ul>
  <% } %>
  <form action="/login" method="POST">
    <input type="text" name="username" placeholder="Username" required><br>
    <input type="password" name="password" placeholder="Password" required><br>
    <button type="submit">Login</button>
  </form>
</body>
</html>
```

4) Login with JWT, CRUD operations for students table with mongoose, express and any one
template engine, Logout.

server.js

```
const express = require('express');
const mongoose = require('mongoose');
const jwt = require('jsonwebtoken');
const bcrypt = require('bcryptjs');
const path = require('path');
const session = require('express-session');
const methodOverride = require('method-override');
const app = express();
const PORT = process.env.PORT || 3001;

// Middleware
app.use(express.json());
app.use(express.urlencoded({ extended: true }));
app.use(methodOverride('_method')); // For PUT and DELETE methods
app.set('view engine', 'ejs');

// Set views directory
app.set('views', path.join(__dirname, 'views'));
app.set('view engine', 'ejs');

// Session setup
app.use(session({
  secret: 'your_secret_key',
  resave: false,
```

```
    saveUninitialized: true,
}));

// Connect to MongoDB
mongoose.connect('mongodb://localhost:27017/studentDB', { useNewUrlParser: true, useUnifiedTopology: true })
    .then(() => console.log('MongoDB connected'))
    .catch(err => console.error(err));

// Student Schema
const studentSchema = new mongoose.Schema({
    name: String,
    email: { type: String, unique: true },
    password: String
});

const Student = mongoose.model('Student', studentSchema);

// Middleware for JWT verification
const authenticateJWT = (req, res, next) => {
    const token = req.session.token;
    if (!token) return res.redirect('/'); // Redirect if not logged in

    jwt.verify(token, 'your_jwt_secret', (err, user) => {
        if (err) return res.redirect('/'); // Redirect if token is invalid
        req.user = user;
        next();
    });
};
```

```
// Routes
app.get('/', (req, res) => {
  res.render('index');
});

// Register
app.post('/register', async (req, res) => {
  const hashedPassword = await bcrypt.hash(req.body.password, 10);
  const newStudent = new Student({
    name: req.body.name,
    email: req.body.email,
    password: hashedPassword
  });

  try {
    await newStudent.save();
    res.status(201).send('Student registered');
  } catch (error) {
    res.status(400).send('Error registering student');
  }
});

// Login
app.post('/login', async (req, res) => {
  const student = await Student.findOne({ email: req.body.email });
  if (student && (await bcrypt.compare(req.body.password, student.password))) {
    const token = jwt.sign({ email: student.email }, 'your_jwt_secret', { expiresIn: '1h' });
    req.session.token = token;
    res.redirect('/students'); // Redirect to the students page
```

```
    } else {
        res.status(403).send('Invalid credentials');
    }
});

// Logout
app.post('/logout', (req, res) => {
    req.session.destroy(err => {
        if (err) return res.status(500).send('Could not log out');
        res.redirect('/');
    });
});

// View students
app.get('/students', authenticateJWT, async (req, res) => {
    try {
        const students = await Student.find();
        res.render('student', { students });  // Renders the student.ejs view
    } catch (error) {
        res.status(500).send('Error retrieving students');
    }
});
// Add student form
app.get('/students/new', authenticateJWT, (req, res) => {
    res.render('insert');
});

// Handle adding a new student
app.post('/students', authenticateJWT, async (req, res) => {
```

```
    const hashedPassword = await bcrypt.hash(req.body.password, 10);
    const newStudent = new Student({
        name: req.body.name,
        email: req.body.email,
        password: hashedPassword
    });

    try {
        await newStudent.save();
        res.redirect('/students');
    } catch (error) {
        res.status(400).send('Error creating student');
    }
});

// Update student form
app.get('/students/:id/edit', authenticateJWT, async (req, res) => {
    try {
        const student = await Student.findById(req.params.id);
        res.render('update', { student });
    } catch (error) {
        res.status(400).send('Error retrieving student');
    }
});

// Handle updating a student
app.put('/students/:id', authenticateJWT, async (req, res) => {
    const updateData = {
        name: req.body.name,
```

```
        email: req.body.email,
    };

    if (req.body.password) {
        updateData.password = await bcrypt.hash(req.body.password, 10);
    }

    try {
        await Student.findByIdAndUpdate(req.params.id, updateData);
        res.redirect('/students');
    } catch (error) {
        res.status(400).send('Error updating student');
    }
});

// Handle deleting a student
app.delete('/students/:id', authenticateJWT, async (req, res) => {
    try {
        await Student.findByIdAndDelete(req.params.id);
        res.redirect('/students');
    } catch (error) {
        res.status(400).send('Error deleting student');
    }
});

// Start server
app.listen(PORT, () => {
    console.log(`Server running on http://localhost:${PORT}`);
});
```

index.ejs

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Student Management System</title>
</head>
<body>
    <h1>Welcome to the Student Management System</h1>

    <!-- Login Form -->
    <h2>Login</h2>
    <form action="/login" method="POST">
        <label for="email">Email:</label>
        <input type="email" name="email" required>
        <label for="password">Password:</label>
        <input type="password" name="password" required>
        <button type="submit">Login</button>
    </form>

    <!-- Registration Form -->
    <h2>Register</h2>
    <form action="/register" method="POST">
        <label for="name">Name:</label>
        <input type="text" name="name" required>
        <label for="email">Email:</label>
        <input type="email" name="email" required>
```

```
        <label for="password">Password:</label>
        <input type="password" name="password" required>
        <button type="submit">Register</button>
    </form>
</body>
</html>
```

insert.ejs

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Add New Student</title>
</head>
<body>
    <h1>Add New Student</h1>
    <form action="/students" method="POST">
        <label for="name">Name:</label>
        <input type="text" name="name" required>
        <label for="email">Email:</label>
        <input type="email" name="email" required>
        <label for="password">Password:</label>
        <input type="password" name="password" required>
        <button type="submit">Add Student</button>
    </form>
    <a href="/students">Back to Students List</a>
```

```
</body>
</html>
```

student.ejs

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Student List</title>
</head>
<body>
    <h1>Student List</h1>
    <table border="1">
        <thead>
            <tr>
                <th>Name</th>
                <th>Email</th>
                <th>Actions</th>
            </tr>
        </thead>
        <tbody>
            <% students.forEach(student => { %>
                <tr>
                    <td><%= student.name %></td>
                    <td><%= student.email %></td>
                    <td>
                        <!-- Edit button -->
```

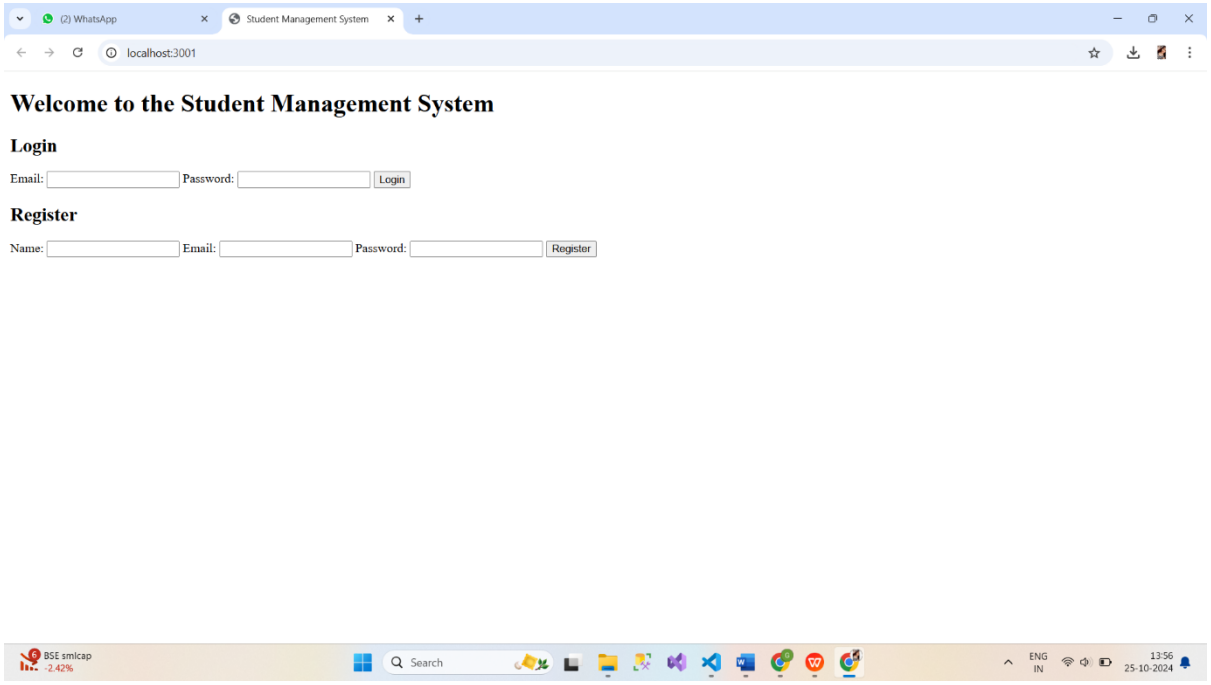
```
                <a href="/students/<%= student._id %>/edit">Edit</a>

                <!-- Delete button -->
                <form action="/students/<%= student._id %>?_method=DELETE"
method="POST" style="display:inline;">
                    <button type="submit">Delete</button>
                </form>
              </td>
            </tr>
          <% }) %>
        </tbody>
    </table>

    <!-- Add New Student Button -->
    <a href="/students/new">Add New Student</a>

    <!-- Logout Button -->
    <form action="/logout" method="POST">
        <button type="submit">Logout</button>
    </form>
</body>
</html>
```

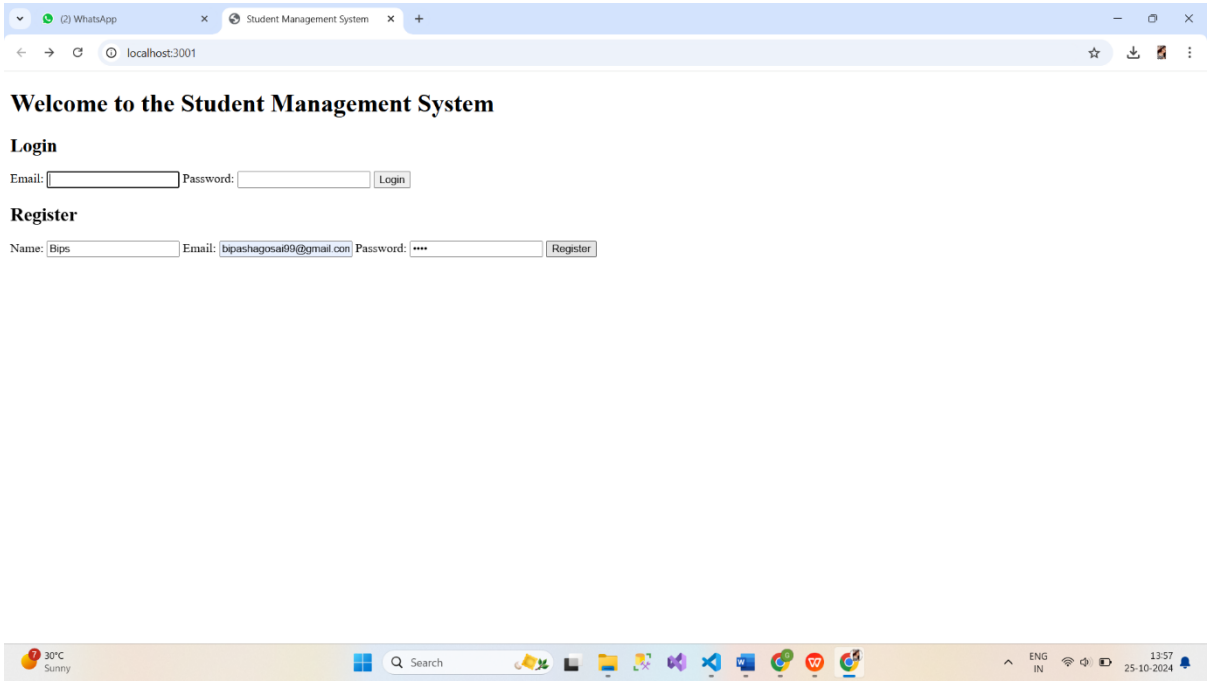
update.ejs

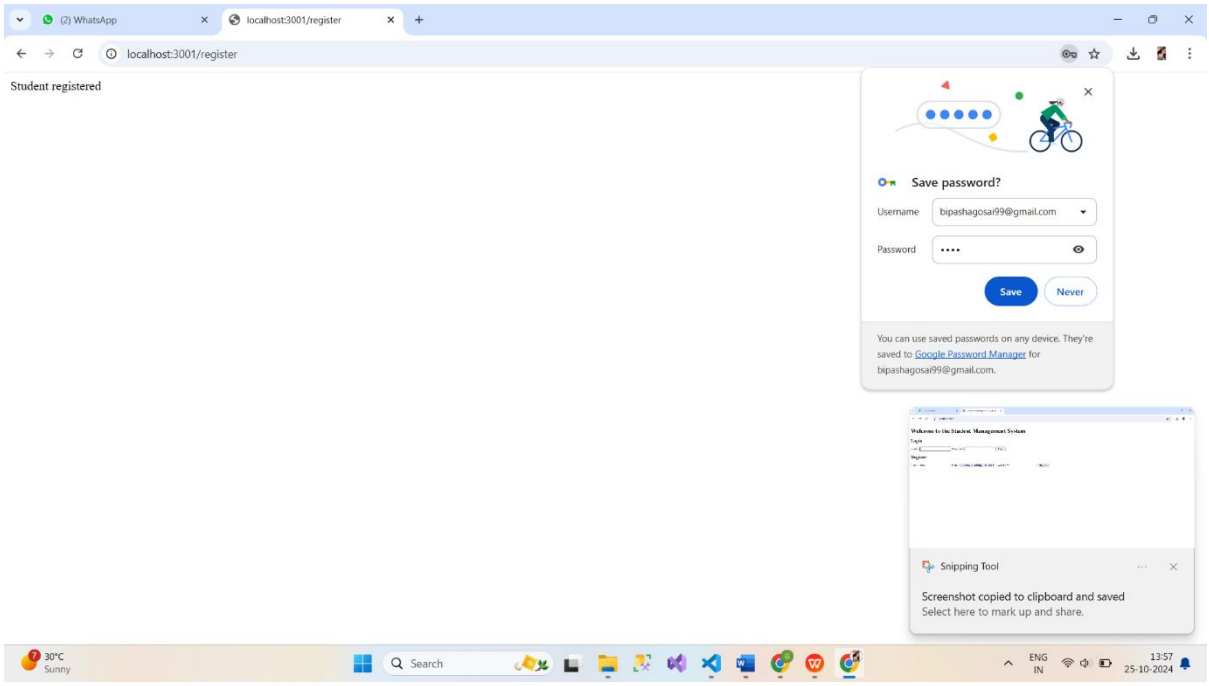
```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
```

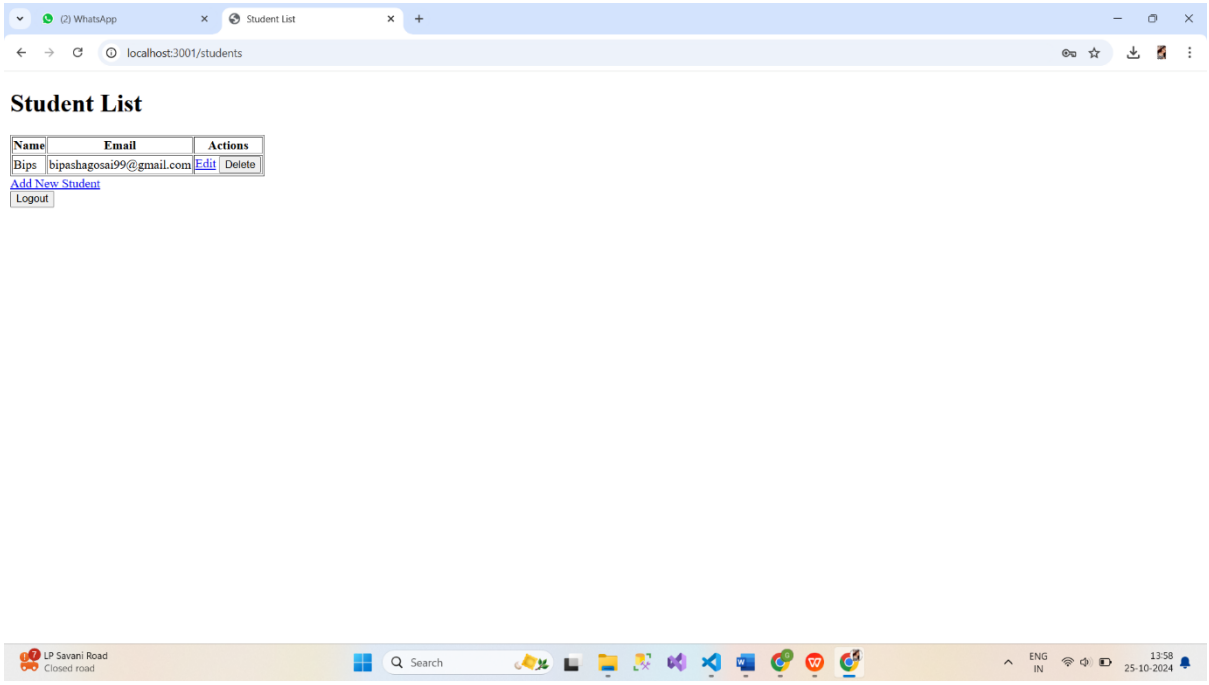
```
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Edit Student</title>
</head>
<body>
    <h1>Edit Student</h1>
    <form action="/students/<%= student._id %>?_method=PUT" method="POST">
        <label for="name">Name:</label>
        <input type="text" name="name" value="<%= student.name %>" required>
        <label for="email">Email:</label>
        <input type="email" name="email" value="<%= student.email %>" required>
        <label for="password">Password:</label>
        <input type="password" name="password" placeholder="Leave blank to keep current password">
        <button type="submit">Update Student</button>
    </form>
    <a href="/students">Back to Students List</a>
</body>
</html>
```

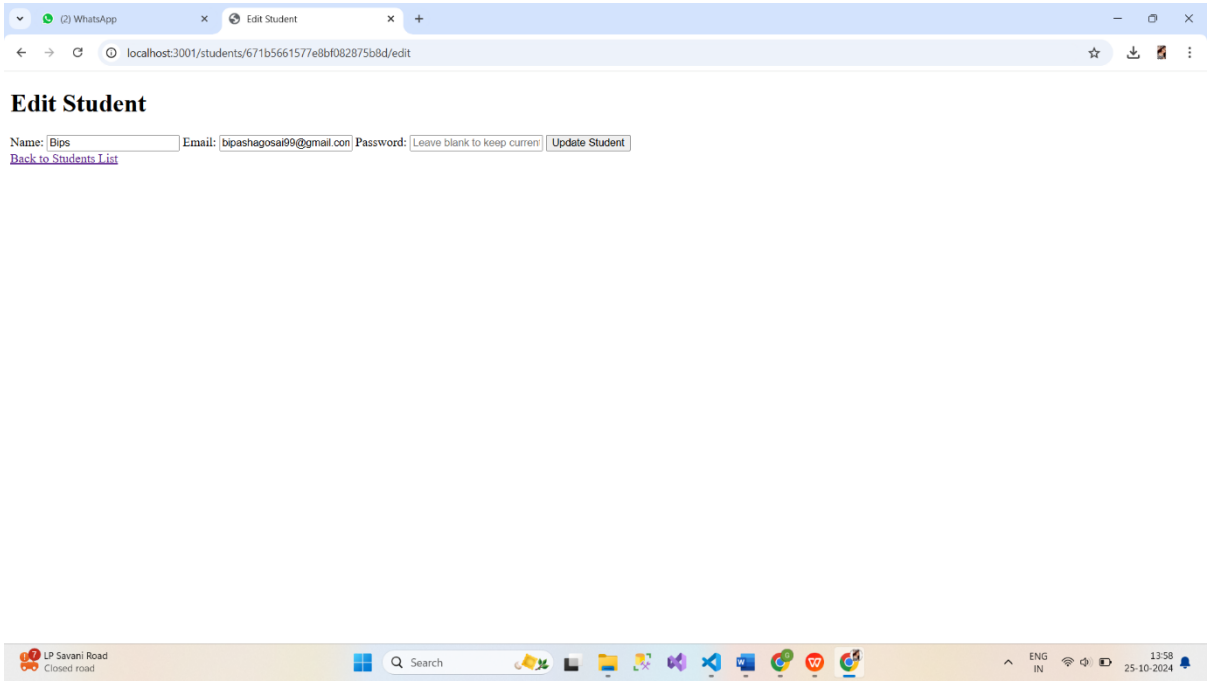
Output :-

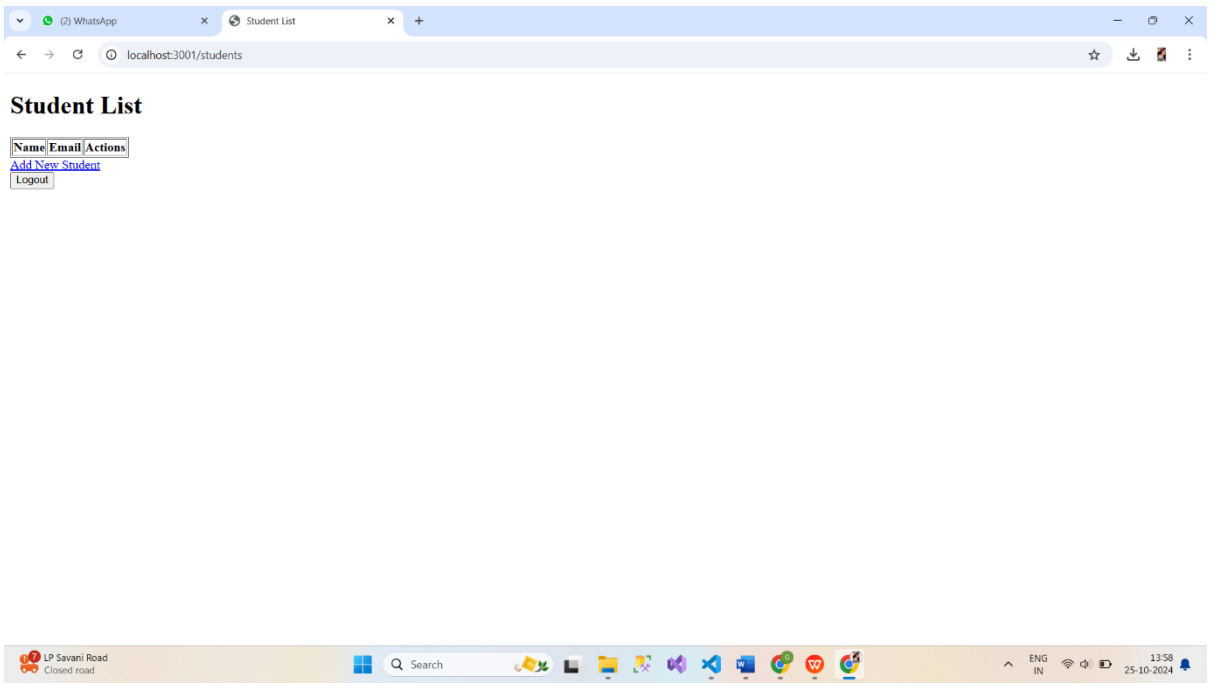

(2) WhatsApp
Student Management System
localhost:3001
Welcome to the Student Management System
Login
Email: Password: Login
Register
Name: Email: Password: Register
BSE smlcap -2.42%
Search
ENG IN
13:56 25-10-2024


(2) WhatsApp
Student Management System
localhost:3001
Welcome to the Student Management System
Login
Email: Password: Login
Register
Name: Bips Email: bipashagosai99@gmail.con Password: Register
30°C Sunny
Search
ENG IN
13:57 25-10-2024


(2) WhatsApp
localhost:3001/register
localhost:3001/register
Student registered
Save password?
Username
bipashagosai99@gmail.com
Password
Save
Never
You can use saved passwords on any device. They're saved to Google Password Manager for bipashagosai99@gmail.com.
Snipping Tool
Screenshot copied to clipboard and saved
Select here to mark up and share.
30°C
Sunny
Search
ENG
IN
13:57
25-10-2024


(2) WhatsApp
Student List
localhost:3001/students
Student List
Name
Email
Actions
Bips
bipashagosai99@gmail.com
Edit
Delete
Add New Student
Logout
LP Savani Road
Closed road
Search
ENG
IN
13:58
25-10-2024


(2) WhatsApp
Edit Student
localhost:3001/students/671b5661577e8bf082875b8d/edit
Edit Student
Name: Bips
Email: bipashagosai99@gmail.con
Password: Leave blank to keep curren
Update Student
Back to Students List
LP Savani Road
Closed road
Search
ENG
IN
13:58
25-10-2024


(2) WhatsApp
Student List
localhost:3001/students
Student List
Name
Email
Actions
Add New Student
Logout
LP Savani Road
Closed road
Search
ENG
IN
13:58
25-10-2024

5) Login with JWT, CRUD operations for students table with mongoose, express and frontend(html,css,javascript/jquery/angularjs), Logout.

server.js

```
const express = require('express');
const mongoose = require('mongoose');
const jwt = require('jsonwebtoken');
const bcrypt = require('bcryptjs');
const cors = require('cors');
const path = require('path');
const session = require('express-session');
const methodOverride = require('method-override');
const app = express();
const PORT = process.env.PORT || 8001;

// Middleware
app.use(express.json());
app.use(express.urlencoded({ extended: true }));
app.use(methodOverride('_method')); // For PUT and DELETE methods
app.use(cors());
app.set('view engine', 'ejs');

// Set views directory
app.set('views', path.join(__dirname, 'views'));
app.use(express.static(path.join(__dirname, 'public')));

// Session setup
```

```
app.use(session({
    secret: 'your_secret_key',
    resave: false,
    saveUninitialized: true,
}));

// Connect to MongoDB
mongoose.connect('mongodb://localhost:27017/employeeDB', { useNewUrlParser: true, useUnifiedTopology: true })
    .then(() => console.log('MongoDB connected'))
    .catch(err => console.error(err));

// Employee Schema
const employeeSchema = new mongoose.Schema({
    name: String,
    email: { type: String, unique: true },
    password: String
});

const Employee = mongoose.model('Employee', employeeSchema);

// Middleware for JWT verification
const authenticateJWT = (req, res, next) => {
    const token = req.session.token;
    if (!token) return res.redirect('/login'); // Redirect to login if not logged in

    jwt.verify(token, 'your_jwt_secret', (err, user) => {
        if (err) return res.redirect('/login'); // Redirect if token is invalid
        req.user = user;
        next();
```

```
    });
};

// Routes

// Registration Page
app.get('/register', (req, res) => {
    res.render('register');
});

// Register new employee
app.post('/register', async (req, res) => {
    const hashedPassword = await bcrypt.hash(req.body.password, 10);
    const newEmployee = new Employee({
        name: req.body.name,
        email: req.body.email,
        password: hashedPassword
    });

    try {
        await newEmployee.save();
        res.redirect('/login'); // Redirect to login page after registration
    } catch (error) {
        res.status(400).send('Error registering employee');
    }
});

// Login Page
app.get('/login', (req, res) => {
```

```
    res.render('login');
});

// Login employee
app.post('/login', async (req, res) => {
    const employee = await Employee.findOne({ email: req.body.email });
    if (employee && (await bcrypt.compare(req.body.password, employee.password))) {
        const token = jwt.sign({ email: employee.email }, 'your_jwt_secret', { expiresIn: '1h' });
        req.session.token = token;
        res.redirect('/employees'); // Redirect to the employee list page after login
    } else {
        res.status(403).send('Invalid credentials');
    }
});

// Logout
app.post('/logout', (req, res) => {
    req.session.destroy(err => {
        if (err) return res.status(500).send('Could not log out');
        res.redirect('/login');
    });
});

// View all employees (Protected route)
app.get('/employees', authenticateJWT, async (req, res) => {
    try {
        const employees = await Employee.find();
        res.render('employeeList', { employees });
    } catch (error) {
```

```
        res.status(500).send('Error retrieving employees');
    }
});

// Add employee form (Protected route)
app.get('/employees/new', authenticateJWT, (req, res) => {
    res.render('addEmployee');
});

// Handle adding a new employee
app.post('/employees', authenticateJWT, async (req, res) => {
    const hashedPassword = await bcrypt.hash(req.body.password, 10);
    const newEmployee = new Employee({
        name: req.body.name,
        email: req.body.email,
        password: hashedPassword
    });

    try {
        await newEmployee.save();
        res.redirect('/employees');
    } catch (error) {
        res.status(400).send('Error creating employee');
    }
});

// Update employee form (Protected route)
app.get('/employees/:id/edit', authenticateJWT, async (req, res) => {
    try {
```

```
        const employee = await Employee.findById(req.params.id);
        res.render('editEmployee', { employee });
    } catch (error) {
        res.status(400).send('Error retrieving employee');
    }
});

// Handle updating an employee
app.put('/employees/:id', authenticateJWT, async (req, res) => {
    const updateData = {
        name: req.body.name,
        email: req.body.email,
    };

    if (req.body.password) {
        updateData.password = await bcrypt.hash(req.body.password, 10);
    }

    try {
        await Employee.findByIdAndUpdate(req.params.id, updateData);
        res.redirect('/employees');
    } catch (error) {
        res.status(400).send('Error updating employee');
    }
});

// Handle deleting an employee
app.delete('/employees/:id', authenticateJWT, async (req, res) => {
    try {
```

```
        await Employee.findByIdAndDelete(req.params.id);
        res.redirect('/employees');
    } catch (error) {
        res.status(400).send('Error deleting employee');
    }
});

// Start server
app.listen(PORT, () => {
    console.log(`Server running on http://localhost:${PORT}`);
});
```

addEmployee.ejs

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Add Employee</title>
    <link rel="stylesheet" href="/styles.css">
</head>
<body>
    <div class="container">
        <h1>Add New Employee</h1>
        <form action="/employees" method="POST">
            <div>
```

```
            <label for="name">Name:</label>
            <input type="text" id="name" name="name" required>
        </div>
        <div>
            <label for="email">Email:</label>
            <input type="email" id="email" name="email" required>
        </div>
        <div>
            <label for="password">Password:</label>
            <input type="password" id="password" name="password" required>
        </div>
        <button type="submit">Add Employee</button>
    </form>
    <a href="/employees" class="btn">Back to Employee List</a>
  </div>
  <script src="/script.js"></script>
</body>
</html>
```

editEmployee.ejs

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Edit Employee</title>
  <link rel="stylesheet" href="/styles.css">
```

```
</head>
<body>
  <div class="container">
    <h1>Edit Employee</h1>
    <form action="/employees/<%= employee._id %>?_method=PUT" method="POST">
      <div>
        <label for="name">Name:</label>
        <input type="text" id="name" name="name" value="<%= employee.name %>"
required>
      </div>
      <div>
        <label for="email">Email:</label>
        <input type="email" id="email" name="email" value="<%= employee.email %>"
required>
      </div>
      <div>
        <label for="password">New Password (leave blank to keep current):</label>
        <input type="password" id="password" name="password">
      </div>
      <button type="submit">Update Employee</button>
    </form>
    <a href="/employees" class="btn">Back to Employee List</a>
  </div>
  <script src="/script.js"></script>
</body>
</html>
```

employeeList.ejs

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Employee List</title>
    <link rel="stylesheet" href="/styles.css"> <!-- Link to your CSS file -->
    <script src="https://code.jquery.com/jquery-3.6.0.min.js"></script> <!-- Optional jQuery --
>
    <style>
        body {
            font-family: Arial, sans-serif;
            margin: 20px;
        }
        h1 {
            text-align: center;
        }
        table {
            width: 100%;
            border-collapse: collapse;
            margin-top: 20px;
        }
        table, th, td {
            border: 1px solid #ddd;
        }
        th, td {
            padding: 8px;
            text-align: left;
        }
        th {
```

```
    background-color: #f2f2f2;
}
tr:hover {
    background-color: #f1f1f1;
}
.action-buttons {
    display: flex;
    justify-content: space-between;
    margin: 10px 0;
}
a {
    text-decoration: none;
    color: white;
    padding: 10px 15px;
    border-radius: 5px;
}
.add-button {
    background-color: #4CAF50; /* Green */
}
.logout-button {
    background-color: #f44336; /* Red */
}
.edit-button {
    color: #007BFF; /* Blue color for the Edit link */
    text-decoration: underline; /* Underline for better visibility */
}
.edit-button:hover {
    color: #0056b3; /* Darker blue on hover */
}
```

```
        .delete-button {
            color: red; /* Red for delete button */
            border: none;
            background: none;
            cursor: pointer;
        }
    </style>
</head>
<body>
    <h1>Employee List</h1>

    <div class="action-buttons">
        <a href="/employees/new" class="add-button">Add Employee</a>
        <form action="/logout" method="POST">
            <button type="submit" class="logout-button">Logout</button>
        </form>
    </div>

    <table>
        <thead>
            <tr>
                <th>Name</th>
                <th>Email</th>
                <th>Actions</th>
            </tr>
        </thead>
        <tbody>
            <% employees.forEach(employee => { %>
                <tr>
```

```
            <td><%= employee.name %></td>
            <td><%= employee.email %></td>
            <td>
              <a href="/employees/<%= employee._id %>/edit" class="edit-button">Edit</a>
              <form action="/employees/<%= employee._id %>?_method=DELETE"
method="POST" style="display:inline;">
                <button type="submit" class="delete-button">Delete</button>
              </form>
            </td>
          </tr>
        <% }); %>
      </tbody>
  </table>
</body>
</html>
```

login.ejs

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Login</title>
  <link rel="stylesheet" href="/styles.css">
</head>
<body>
  <div class="container">
```

```
    <h1>Login</h1>
    <form action="/login" method="POST">
      <div>
        <label for="email">Email:</label>
        <input type="email" id="email" name="email" required>
      </div>
      <div>
        <label for="password">Password:</label>
        <input type="password" id="password" name="password" required>
      </div>
      <button type="submit">Login</button>
    </form>
    <p>Don't have an account? <a href="/register">Register here</a></p>
  </div>
  <script src="/script.js"></script>
</body>
</html>
```

register.ejs

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Register</title>
  <link rel="stylesheet" href="/styles.css">
</head>
```

```
<body>
    <div class="container">
        <h1>Register</h1>
        <form action="/register" method="POST">
            <div>
                <label for="name">Name:</label>
                <input type="text" id="name" name="name" required>
            </div>
            <div>
                <label for="email">Email:</label>
                <input type="email" id="email" name="email" required>
            </div>
            <div>
                <label for="password">Password:</label>
                <input type="password" id="password" name="password" required>
            </div>
            <button type="submit">Register</button>
        </form>
        <p>Already have an account? <a href="/login">Login here</a></p>
    </div>
    <script src="/script.js"></script>
</body>
</html>
```

script.js

```
// Example JavaScript code for future enhancements
$(document).ready(function() {
```

```
    // Any JavaScript or jQuery code can be placed here
    console.log("Document is ready!");
});
```

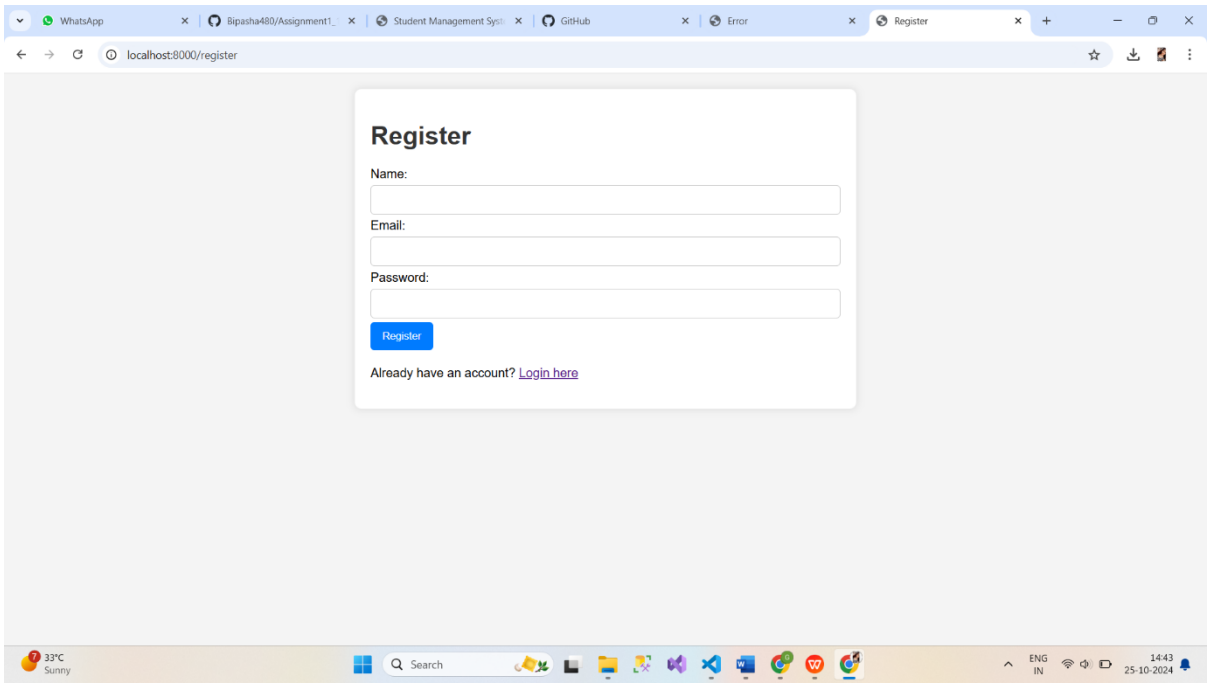
styles.css

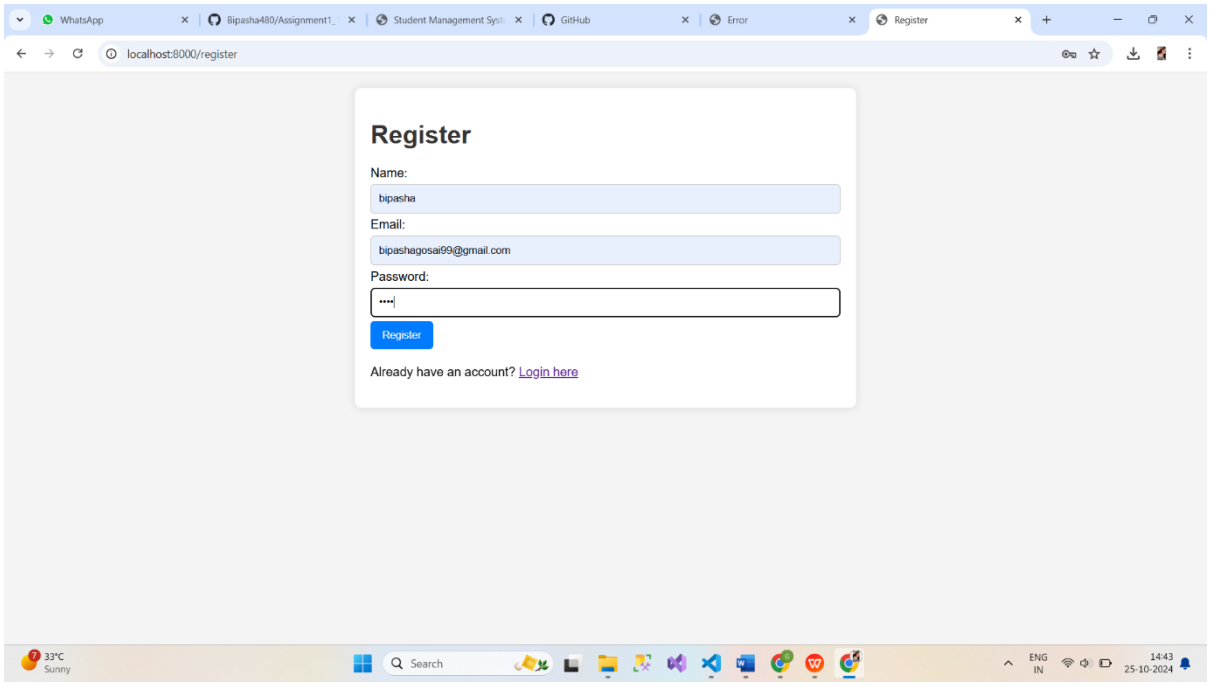
```
body {
    font-family: Arial, sans-serif;
    margin: 20px;
    background-color: #f4f4f4;
}

.container {
    max-width: 600px;
    margin: auto;
    background: white;
    padding: 20px;
    border-radius: 8px;
    box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
}

h1 {
    color: #333;
}

form {
    margin-bottom: 20px;
}
```

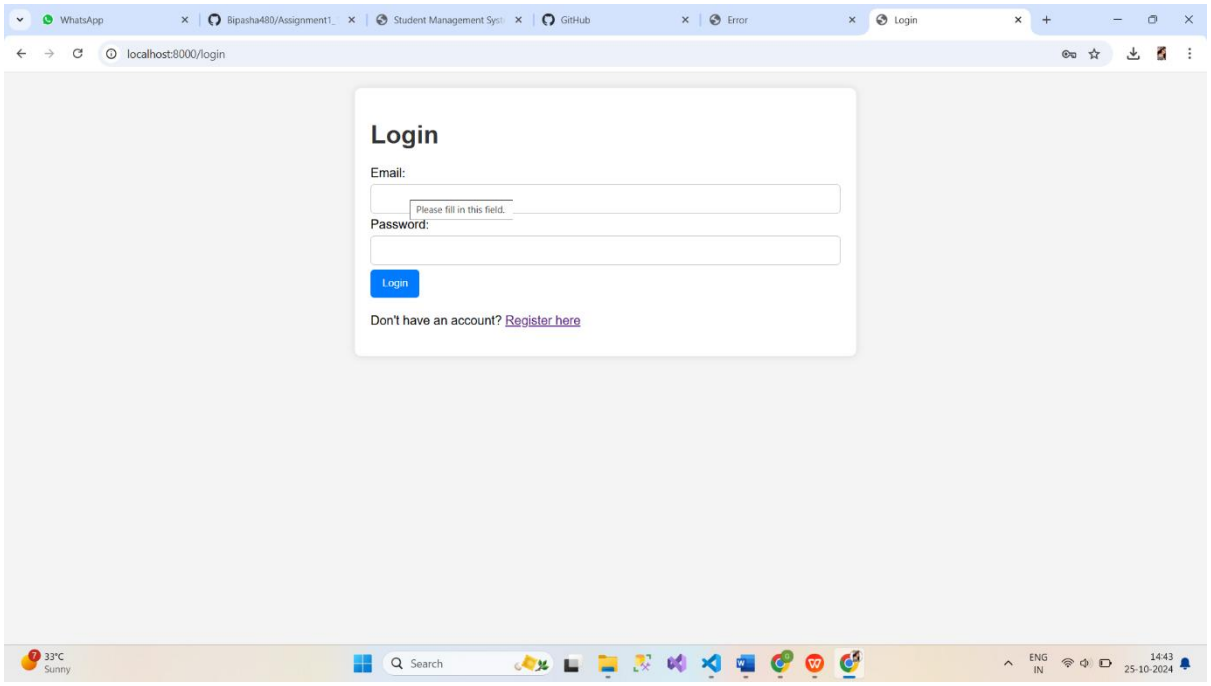
```
input {
    margin: 5px 0;
    padding: 10px;
    width: calc(100% - 22px);
    border: 1px solid #ccc;
    border-radius: 5px;
}

button, .btn {
    padding: 10px 15px;
    background-color: #007BFF;
    color: white;
    border: none;
    border-radius: 5px;
    cursor: pointer;
}

button:hover, .btn:hover {
    background-color: #0056b3;
}

ul {
    list-style: none;
    padding: 0;
}

li {
    padding: 10px;
```

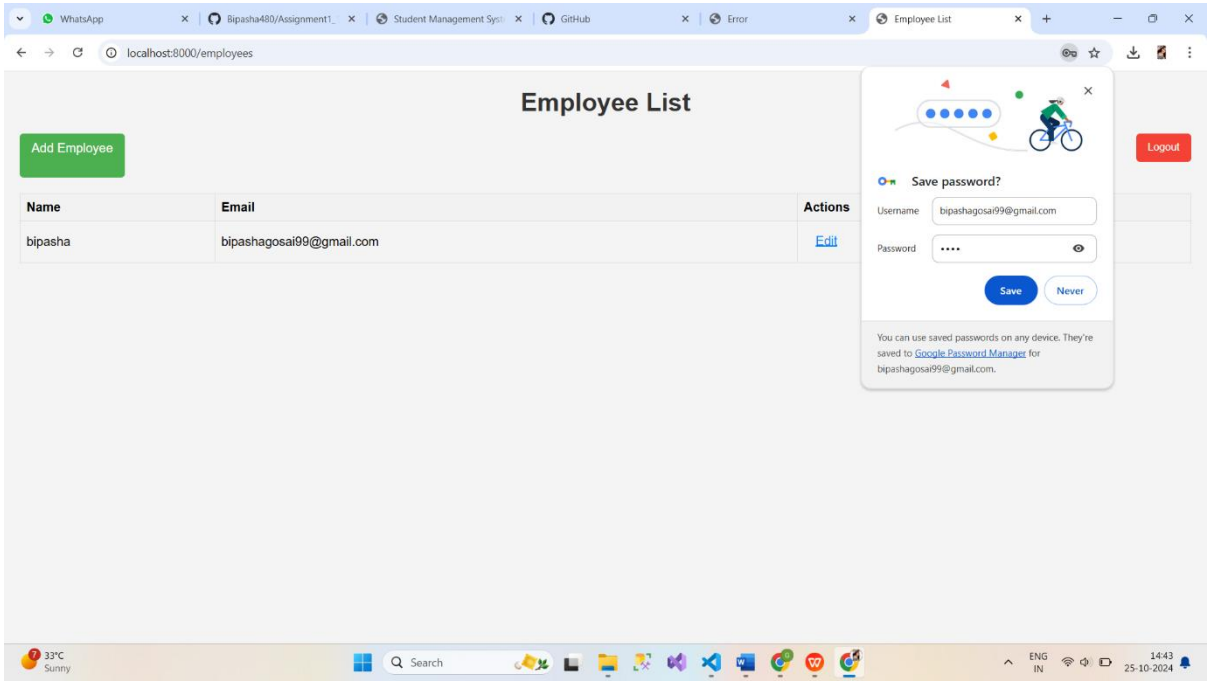
```
    border-bottom: 1px solid #ddd;
}
```

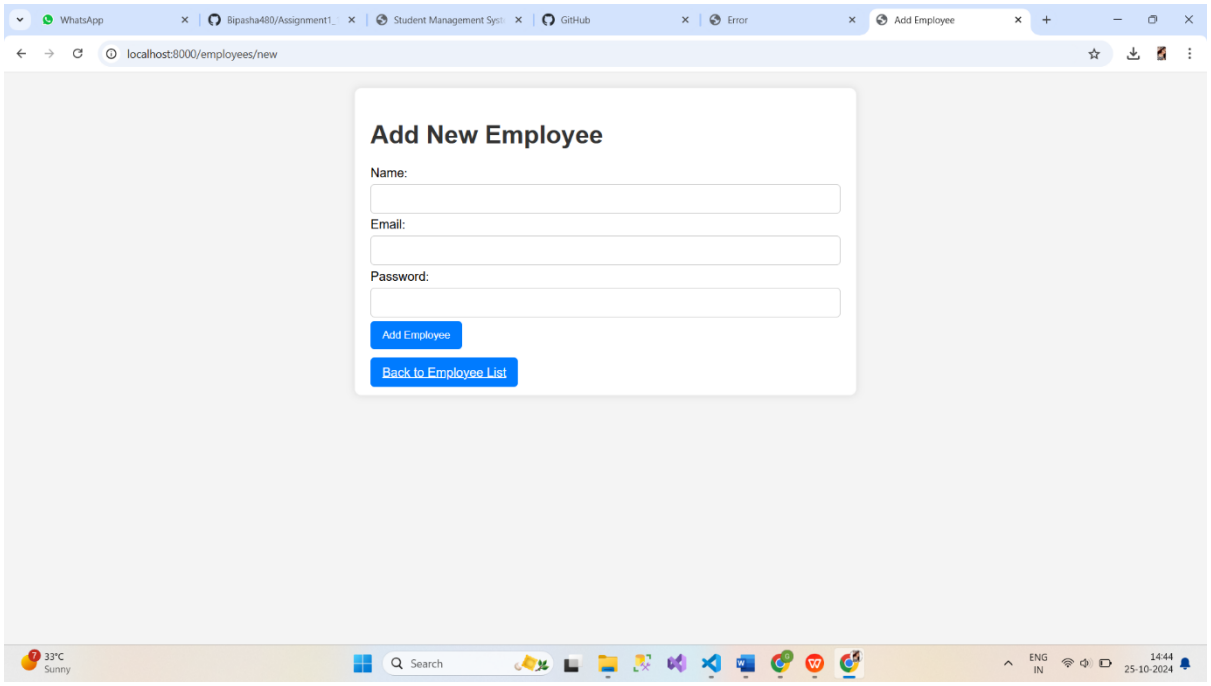
Output :-

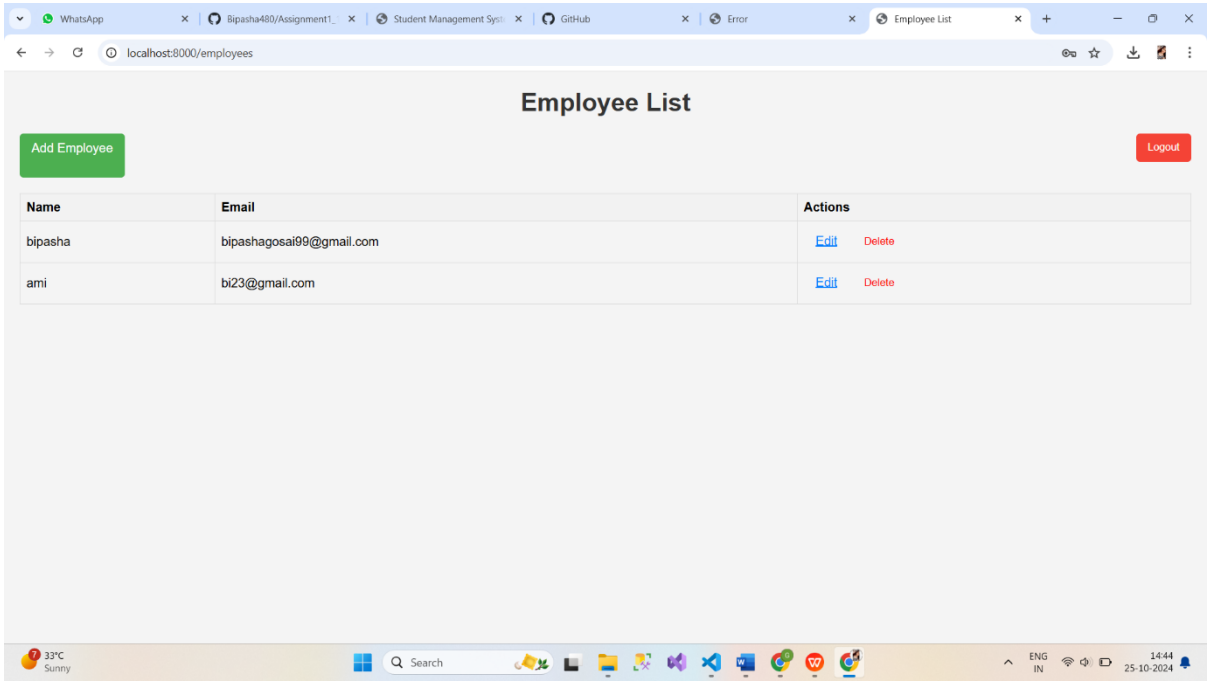


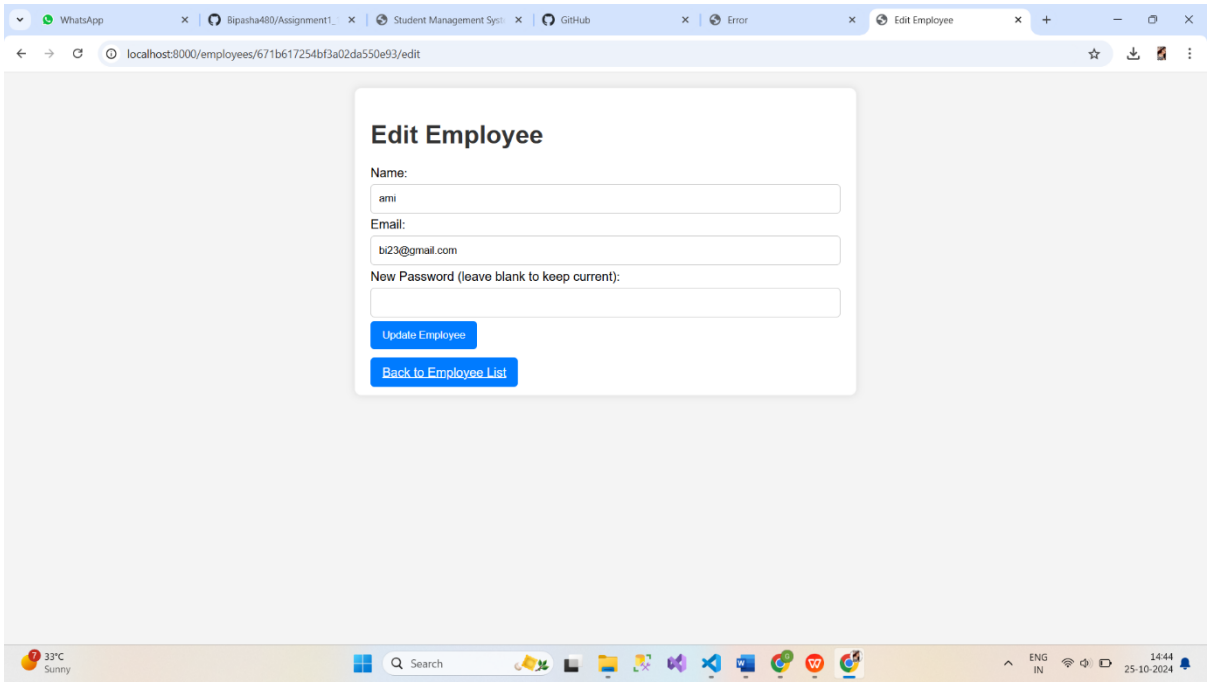


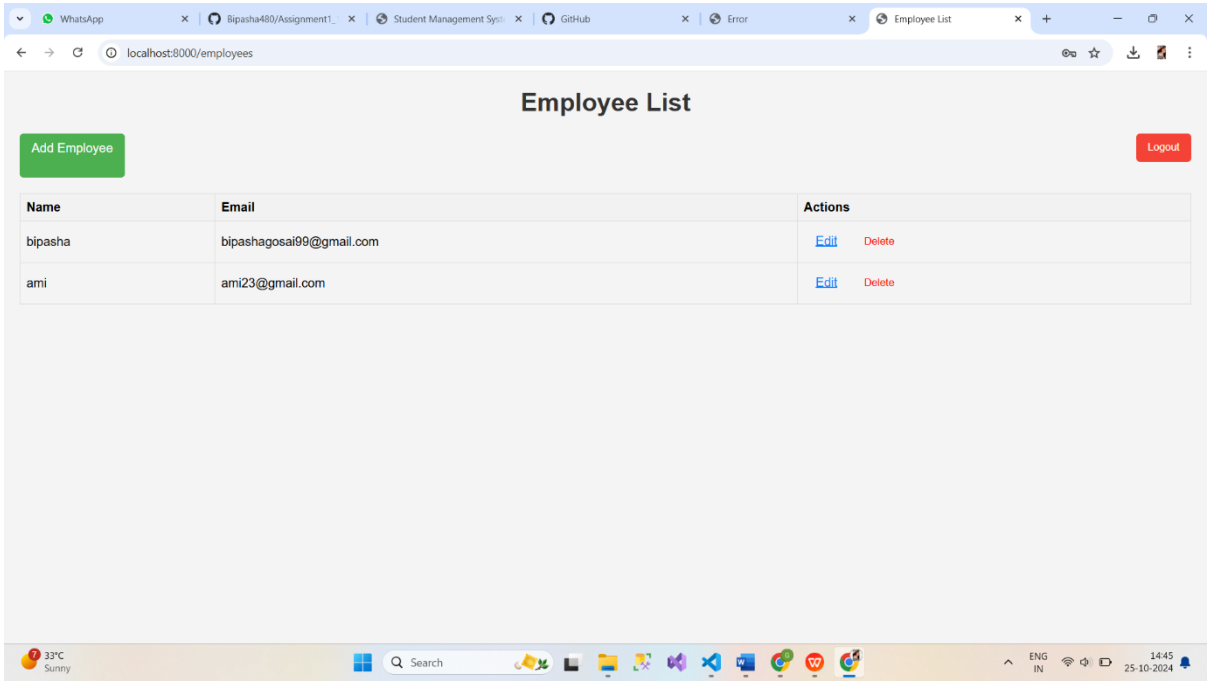

WhatsApp
Bipasha480/Assignment1_
Student Management Syst
GitHub
Error
Login
localhost:8000/login
Login
Email:
Please fill in this field.
Password:
Login
Don't have an account? Register here
33°C
Sunny
Search
ENG
IN
14:43
25-10-2024

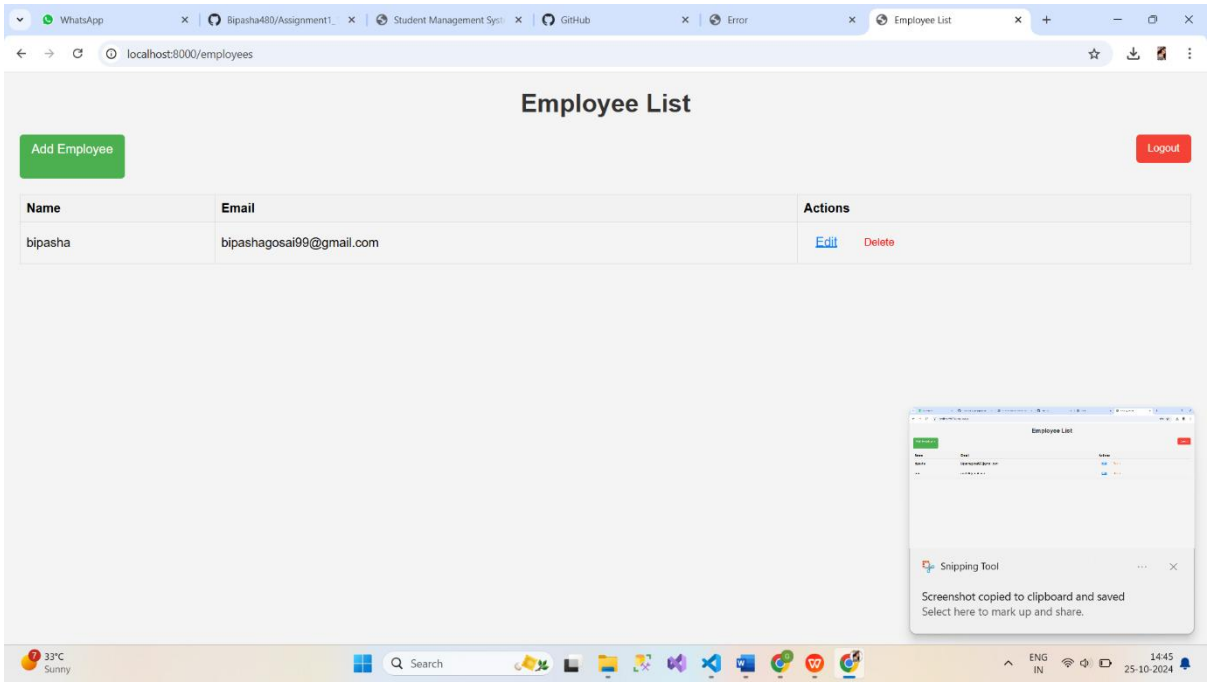

WhatsApp
Bipasha480/Assignment1_
Student Management Syst
GitHub
Error
Employee List
localhost:8000/employees
Employee List
Add Employee
Logout
Name
Email
Actions
bipasha
bipashagosai99@gmail.com
Edit
Save password?
Username
bipashagosai99@gmail.com
Password
Save
Never
You can use saved passwords on any device. They're saved to Google Password Manager for bipashagosai99@gmail.com.
33°C
Sunny
Search
ENG
IN
14:43
25-10-2024

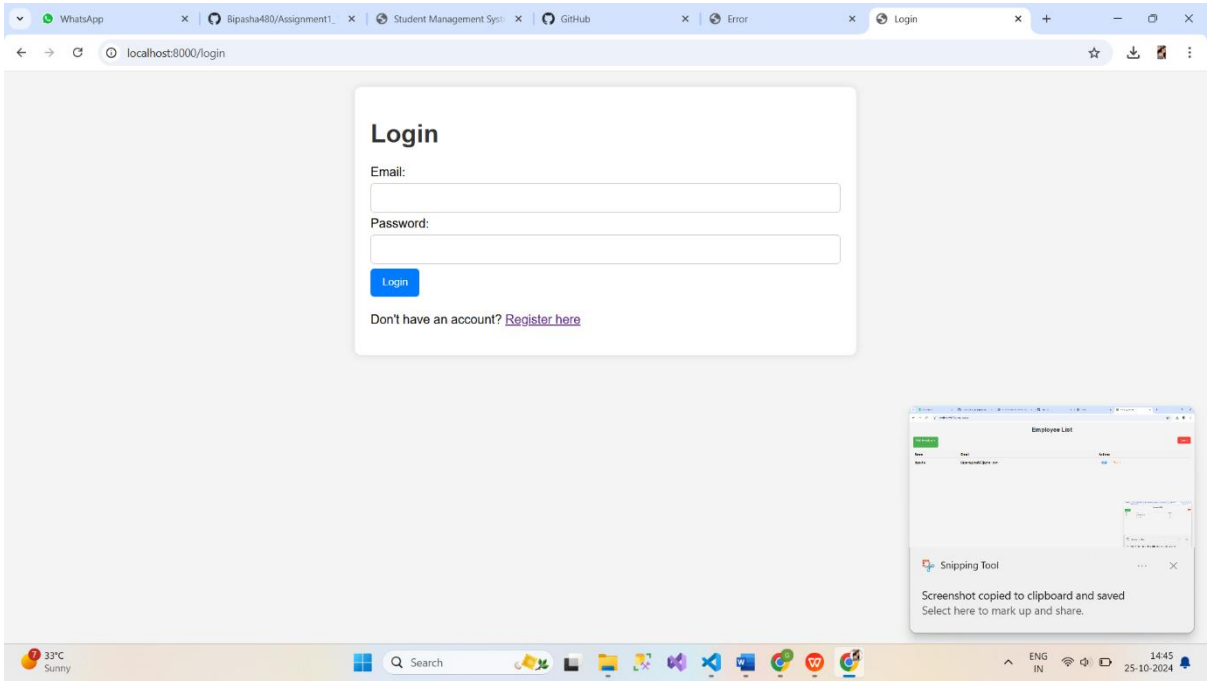

WhatsApp
Bipasha480/Assignment1_
Student Management Syst
GitHub
Error
Add Employee
localhost:8000/employees/new
Add New Employee
Name:
Email:
Password:
Add Employee
Back to Employee List
33°C
Sunny
Search
ENG
IN
14:44
25-10-2024


WhatsApp
Bipasha480/Assignment1_
Student Management Syst
GitHub
Error
Employee List
localhost:8000/employees
Employee List
Add Employee
Logout
Name
Email
Actions
bipasha
bipashagosai99@gmail.com
Edit
Delete
ami
bi23@gmail.com
Edit
Delete
33°C
Sunny
Search
ENG
IN
14:44
25-10-2024


WhatsApp
Bipasha480/Assignment1_
Student Management Syst
GitHub
Error
Edit Employee
localhost:8000/employees/671b617254bf3a02da550e93/edit
Edit Employee
Name:
ami
Email:
bi23@gmail.com
New Password (leave blank to keep current):
Update Employee
Back to Employee List
33°C
Sunny
Search
ENG
IN
14:44
25-10-2024


WhatsApp
Bipasha480/Assignment1_
Student Management Syst
GitHub
Error
Employee List
localhost:8000/employees
Employee List
Add Employee
Logout
Name
Email
Actions
bipasha
bipashagosai99@gmail.com
Edit
Delete
ami
ami23@gmail.com
Edit
Delete
33°C
Sunny
Search
ENG
IN
14:45
25-10-2024


WhatsApp
Bipasha480/Assignment1_
Student Management Syst
GitHub
Error
Employee List
localhost:8000/employees
Employee List
Add Employee
Logout
Name
Email
Actions
bipasha
bipashagosai99@gmail.com
Edit
Delete
Snipping Tool
Screenshot copied to clipboard and saved
Select here to mark up and share.
33°C
Sunny
Search
ENG
IN
14:45
25-10-2024


WhatsApp
Bipasha480/Assignment1_
Student Management Syst
GitHub
Error
Login
localhost:8000/login
Login
Email:
Password:
Login
Don't have an account? Register here
Snipping Tool
Screenshot copied to clipboard and saved
Select here to mark up and share.
33°C
Sunny
Search
ENG
IN
14:45
25-10-2024