10. Create a login page using React JS and validate the user account with MongoDB.

**Aim :** To Create a login page using React JS and validate the user account with MongoDB.

**Algorithm:**

**Step1:** Start the Process.

**Step2:** Set Up a React.js Application using npx create-react-app

**Step3:** Set Up a Node.js Server using “npm install express mongoose body-parser”

**Step4:** Install the axios package using “npm install axios”

**Step5:** Create a Login form component and save the code in App.js

**Step6:** Create a basic server setup and save the code in server.js

**Step7:** Run the server using the command “node src\server.js”

**Step8:** Run the login form application using “npm start”

**Step9:** Stop the process

// server.js

const express = require('express');

const mongoose = require('mongoose');

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

const app = express();

// Connect to MongoDB

mongoose.connect('mongodb://localhost/mydb', {

useNewUrlParser: true,

useUnifiedTopology: true,

});

// Create a user schema and model

const UserSchema = new mongoose.Schema({

username: String,

password: String,

});

const User = mongoose.model('User', UserSchema);

// Middleware for parsing JSON requests

app.use(bodyParser.json());

// Route for handling login requests

app.post('/api/login', async (req, res) => {

const { username, password } = req.body;

const user = await User.findOne({ username, password });

if (user) {

res.json({ success: true, message: 'Login successful' });

} else {

res.status(401).json({ success: false, message: 'Invalid credentials' });

}

});

// Start the server

const port = process.env.PORT || 5000;

app.listen(port, () => {

console.log(`Server is running on port ${port}`);

});

// src/components/LoginForm.js

import React, { useState } from 'react';

import axios from 'axios';

function LoginForm() {

const [username, setUsername] = useState('');

const [password, setPassword] = useState('');

const handleSubmit = async (e) => {

e.preventDefault();

try {

const response = await axios.post('/api/App', {

username,

password,

});

if (response.data.success) {

alert('Login successful');

// Redirect or perform any necessary actions after successful login

} else {

alert('Invalid credentials');

}

} catch (error) {

console.error(error);

alert('An error occurred');

}

};

return (

<div>

<h2>Login</h2>

<form onSubmit={handleSubmit}>

<input

type="text"

placeholder="Username"

value={username}

onChange={(e) => setUsername(e.target.value)}

/>

<input

type="password"

placeholder="Password"

value={password}

onChange={(e) => setPassword(e.target.value)}

/>

<button type="submit">Login</button>

</form>

</div>

);}

export default LoginForm;