Fall Semester 2020-21 Registration Number : 18BCE0503 Solution of Digital Lab Assignment-8(CSE3002) Name of Student: Rohan Mittal

**Exercise 8 – NodeJS**

Note: Performed Activity using MEAN Stack

**Node Code**

var express = require("express");

var validator = require('validator');

app = express();

app.use(express.json());

bodyparser = require("body-parser");

mongoose = require("mongoose");

var cors = require('cors')

app.use(cors())

mongoose.connect("mongodb://localhost:27017/mydb", {

useNewUrlParser: true,

useCreateIndex: true,

useUnifiedTopology: true

});

const schema = mongoose.Schema({

email: {

type: String,

unique: true,

required: true,

trim: true,

lowercase: true,

validate(value) {

if (!validator.isEmail(value)) {

throw new Error("Email is invalid!");

}

},

},

password: {

type: String,

required: true,

minlength: 7,

trim: true,

validate(value) {

if (value.toLowerCase().includes("password")) {

throw new Error('Password cannot contain "password"');

}

},

},

});

const User = mongoose.model("User", schema);

app.post("/login", (req, res) => {

res.header("Access-Control-Allow-Origin", "\*");

const \_id = req.body.email;

console.log(req.body);

User

.findOne({ email: \_id })

.then((user) => {

console.log(user);

if (user.password != req.body.password) {

return res.status(405).send();

}

res.status(200).send(user);

})

.catch((e) => {

res.status(404).send();

});

});

app.post("/register", (req, res) => {

res.header("Access-Control-Allow-Origin", "\*");

console.log(req);

const user = new User(req.body);

user

.save(req.body)

.then(() => {

res.status(201);

res.send(user);

})

.catch((e) => {

res.status(400);

res.send(e);

// console.log(e)

});

});

app.listen(3000, "localhost", function () {

console.log("Hello World!");

});

**Auth Service (used for API Calls)**

**auth.service.ts**

import { HttpClient } from '@angular/common/http';

import { Injectable } from '@angular/core';

@Injectable({

providedIn: 'root'

})

export class AuthService {

constructor(private http: HttpClient) {

}

login(model){

return this.http.post('http://localhost:3000/login', model);

}

register(model){

return this.http.post('http://localhost:3000/register', model);

}

}

**Login Component**

**login.component.html**

<form #loginForm="ngForm" class="form-signin text-center" (submit)="login()">

<h1 class="h3 mb-3 font-weight-normal">Please sign in</h1>

<label for="inputEmail" class="sr-only">Email address</label>

<input #Email ngModel type="email" name="email" id="inputEmail" [(ngModel)]="model.email" class="form-control" placeholder="Email address" [pattern]="emailPattern" required>

<br>

<label for="inputPassword" class="sr-only">Password</label>

<input #Password ngModel type="password" name="password" id="inputPassword" [(ngModel)]="model.password" class="form-control" placeholder="Password" required>

<br><br>

<button [disabled]="!loginForm.valid" class="btn btn-lg btn-success btn-block" type="submit">Sign in</button>

<br><button class="btn btn-danger btn-block" (click)="register()">Not Registered?</button>

</form>

**login.component.css**

form{

display: block;

}

.form-signin{

width: 100%;

max-width: 330px;

padding: 15px;

margin: auto;

}

.vertically-center{

margin: 0;

position: absolute;

top: 50%;

-ms-transform: translateY(-50%);

transform: translateY(-50%);

}

mb-4, .my-4 {

margin-bottom: 1.5rem!important;

}

**Login.component.ts**

import { Component, OnInit } from '@angular/core';

import { Router } from '@angular/router';

import { AuthService } from '../auth.service';

@Component({

selector: 'app-login',

templateUrl: './login.component.html',

styleUrls: ['./login.component.css']

})

export class LoginComponent implements OnInit {

model: any = {};

emailPattern = "^[a-z0-9.\_%+-]+@[a-z0-9.-]+\.[a-z]{2,4}$"

passwordPattern="^(?=.\*[a-z])(?=.\*[A-Z])(?=.\*\\d)[a-zA-Z\\d\\W]{8,63}$";

constructor(private route: Router, private authService: AuthService) { }

ngOnInit(): void {

}

login(){

console.log(this.model);

this.authService.login(this.model).subscribe((next: any) => {

console.log(next);

this.route.navigate(['/welcome']);

}, error => {

console.log(error);

alert('Incorrect Username/Password');

});

}

register(){

this.route.navigate(['register']);

}

}

**Register Component**

**register.component.html**

<form #loginForm="ngForm" class="form-signin text-center" (submit)="register()">

<h1 class="h3 mb-3 font-weight-normal">Please Register</h1>

<label for="inputEmail" class="sr-only">Email address</label>

<input #Email ngModel type="email" name="email" id="inputEmail" [(ngModel)]="model.email" class="form-control" placeholder="Email address" [pattern]="emailPattern" required>

<br>

<label for="inputPassword" class="sr-only">Password</label>

<input #Password ngModel type="password" name="password" id="inputPassword" [(ngModel)]="model.password" class="form-control" placeholder="Password" required>

<br><br>

<button [disabled]="!loginForm.valid" class="btn btn-lg btn-success btn-block" type="submit">Register</button>

<br><button class="btn btn-danger btn-block" (click)="login()">Already Registered?</button>

</form>

**register.component.css**

form{

display: block;

}

.form-signin{

width: 100%;

max-width: 330px;

padding: 15px;

margin: auto;

}

.vertically-center{

margin: 0;

position: absolute;

top: 50%;

-ms-transform: translateY(-50%);

transform: translateY(-50%);

}

mb-4, .my-4 {

margin-bottom: 1.5rem!important;

}

**register.component.ts**

import { Component, OnInit } from '@angular/core';

import { Router } from '@angular/router';

import { AuthService } from '../auth.service';

@Component({

selector: 'app-register',

templateUrl: './register.component.html',

styleUrls: ['./register.component.css']

})

export class RegisterComponent implements OnInit {

model: any = {};

emailPattern = '^[a-z0-9.\_%+-]+@[a-z0-9.-]+\.[a-z]{2,4}$';

constructor(private route: Router, private authService: AuthService) { }

login(){

this.route.navigate(['login']);

}

register(){

this.authService.register(this.model).subscribe((next: any) => {

console.log(next);

this.route.navigate(['/welcome']);

}, error => {

console.log(error);

alert('Could not register.');

});

}

ngOnInit(): void {

}

}

**Welcome Component**

**welcome.component.html**

<h1 style="text-align: center">Welcome User!</h1>

**POSTMAN Screenshots**

**Login testing should give status code 200 OK**

**Graphical user interface, text, application, email

Description automatically generated**

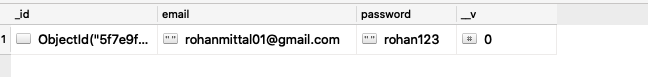
**Register Testing should give status code 201 Created**

**Graphical user interface, text, application, email

Description automatically generated**

**Output Screenshots:**

**Initial Database State**



**Register Page**

Graphical user interface

Description automatically generated

**Database State and Next Page after registering**

email: [rohan.mittal2018@vitstudent.ac.in](mailto:rohan.mittal2018@vitstudent.ac.in)

password: rohan123

Graphical user interface, text, application, email

Description automatically generatedGraphical user interface, text, application

Description automatically generated

**Login Page**

Graphical user interface, application

Description automatically generated

**After Logging In:**

Graphical user interface, text, application

Description automatically generated