SOURCE CODE FOR PHASE END PROJECT EVENT MANAGEMENT APPLICATION

ng version

npm install -g json-server

json-server --watch db.json

npm run json:server

http://localhost:3000

http://localhost:3000/employees

npm install @ng-bootstrap/ng-bootstrap

npm install bootstrap

npm install --save-dev @types/bootstrap

ng g c employee-create

ng g c employee-details

ng g c employee-edit

ng g c employee-list

ng g c home

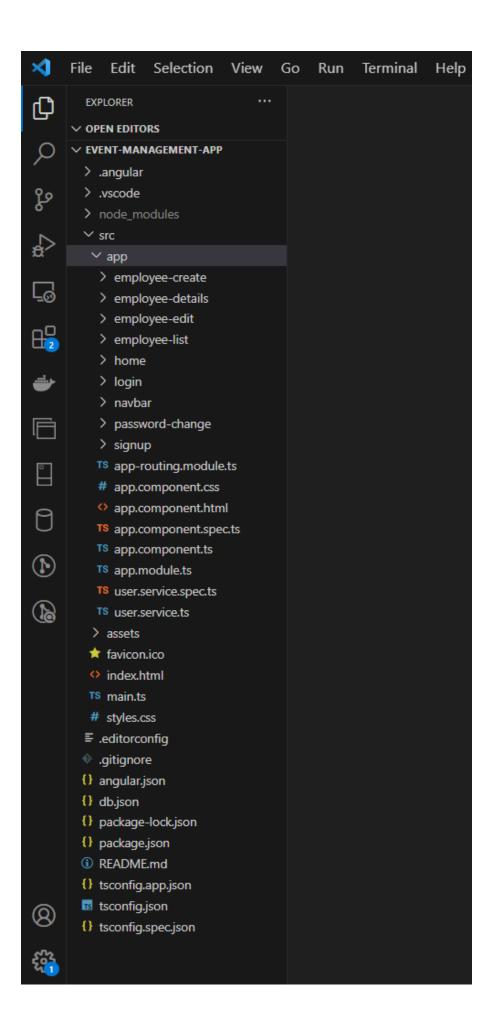
ng g c login

ng g c navbar

ng g c password-change

ng g c signup

ng serve



employee-create.component.css:

```
.form-container {
  max-width: 500px;
 margin: auto;
  padding: 20px;
  background-color: #f2f2f2;
  border: 1px solid #ccc;
  border-radius: 4px;
.form-group {
 margin-bottom: 20px;
label {
 font-weight: bold;
input[type="text"],
input[type="email"] {
 width: 100%;
 padding: 8px;
 border: 1px solid #ccc;
  border-radius: 4px;
.success-message {
 color: green;
 margin-bottom: 10px;
.error-message {
 color: red;
 margin-bottom: 10px;
button[type="submit"] {
  background-color: #007bff;
 color: #fff;
 border: none;
 margin-left: 160px;
  padding: 10px 20px;
 border-radius: 4px;
  cursor: pointer;
button[type="submit"]:hover {
 background-color: #0056b3;
```

```
}
```

employee-create.component.html:

```
<app-navbar></app-navbar>
<div class="form-container">
  <form [formGroup]="employeeForm" (ngSubmit)="onSubmit()">
    <div class="form-group">
      <label for="id">ID</label>
      <input type="text" class="form-control" id="id" formControlName="id"</pre>
required>
    </div>
    <div class="form-group">
      <label for="first_name">First Name</label>
      <input type="text" class="form-control" id="first_name"</pre>
formControlName="first name" required>
    </div>
    <div class="form-group">
      <label for="last name">Last Name</label>
      <input type="text" class="form-control" id="last name"</pre>
formControlName="last_name" required>
    </div>
    <div class="form-group">
      <label for="email">Email</label>
      <input type="email" class="form-control" id="email"</pre>
formControlName="email" required>
    </div>
    <button type="submit" class="btn btn-primary">Add Employee</button>
  </form>
  <div *ngIf="successMessage" class="success-message">{{ successMessage
}}</div>
  <!-- Error message -->
  <div *ngIf="errorMessage" class="error-message" style="text-align:</pre>
center;">{{ errorMessage }}</div>
</div>
```

employee-create.component.spec.ts:

```
import { ComponentFixture, TestBed } from '@angular/core/testing';
import { EmployeeCreateComponent } from './employee-create.component';

describe('EmployeeCreateComponent', () => {
  let component: EmployeeCreateComponent;
  let fixture: ComponentFixture<EmployeeCreateComponent>;
```

```
beforeEach(() => {
    TestBed.configureTestingModule({
        declarations: [EmployeeCreateComponent]
    });
    fixture = TestBed.createComponent(EmployeeCreateComponent);
    component = fixture.componentInstance;
    fixture.detectChanges();
});

it('should create', () => {
    expect(component).toBeTruthy();
    });
});
```

employee-create.component.ts:

```
import { Component } from '@angular/core';
import { HttpClient } from '@angular/common/http';
import { FormBuilder, FormGroup, Validators } from '@angular/forms';
import { Router } from '@angular/router';
@Component({
  selector: 'app-employee-create',
  templateUrl: './employee-create.component.html',
  styleUrls: ['./employee-create.component.css']
})
export class EmployeeCreateComponent {
  employeeForm: FormGroup;
  successMessage: string | null = null;
  errorMessage: string | null = null;
  constructor(
    private http: HttpClient,
    private formBuilder: FormBuilder,
    private router: Router
    this.employeeForm = this.formBuilder.group({
      id: ['', Validators.required],
      first_name: ['', Validators.required],
      last_name: ['', Validators.required],
      email: ['', [Validators.required, Validators.email]]
   });
  onSubmit() {
    if (this.employeeForm.invalid) {
      return;
```

```
const newEmployee = this.employeeForm.value;
    this.http.post('http://localhost:3000/employees', newEmployee)
      .subscribe(
        () => {
          this.errorMessage = null;
          this.router.navigate(['/employees']);
        },
        (error) => {
          if (error.status === 409) {
            this.errorMessage = 'Employee with the same ID already exists';
            this.successMessage = null;
          } else {
            this.errorMessage = 'Error occurred, Please check the id
confliction !';
            this.successMessage = null;
      );
```

employee-details.component.css:

```
.container {
    margin-top: 20px;
}

.employee-details {
    width: 100%;
}

.employee-details h2 {
    margin-bottom: 10px;
}

.actions {
    margin-top: 20px;
    margin-left: 16px;
    margin-bottom: 10px;
    width: 100%;
    display: flex;
}

.actions button {
    margin-right: 10px;
}
```

```
.btn-primary {
  background-color: #0dcaf0;
  color: black;
}
```

employee-details.component.html:

```
<app-navbar></app-navbar>
<div class="container">
 <div class="row">
  <div class="col-md-6">
    <div class="card employee-details">
     <div class="card-header">
       <!-- <h2>Employee Details</h2> -->
        Details of
        <b>{{ employee?.first_name }} {{ employee?.last_name }}</b>
       </div>
     <div class="card-body">
       <b>Employee ID:</b
          >          
sp;    
         {{ employee?.id }}
        <b>Employee First Name:</b>&nbsp;&nbsp; {{ employee?.first name}
}}
        <b>Employee Last Name:</b>&nbsp;&nbsp; {{ employee?.last name }}
        <b>Employee Email:</b
         >          
sp;
         {{ employee?.email }}
        </div>
     <div class="row">
       <div class="col-md-6">
        <div class="actions">
          <button class="btn btn-primary" (click)="goToEmployeeList()">
           Employee List
```

```
</button>
              <button class="btn btn-danger" (click)="deleteEmployee()">
                Delete
              </button>
              <button class="btn btn-secondary"</pre>
(click)="goToUpdateEmployee()">
                Update
              </button>
            </div>
          </div>
       </div>
     </div>
   </div>
 </div>
</div>
<!-- Delete Confirmation Modal -->
<ng-template #deleteConfirmationModal let-modal>
 <div class="modal-header">
    <h4 class="modal-title">Confirm Delete</h4>
   <button
     type="button"
     class="close"
     aria-label="Close"
     (click)="modal.dismiss()"
     <span aria-hidden="true">&times;</span>
    </button>
  </div>
  <div class="modal-body">
    Are you sure you want to delete this employee?
 </div>
 <div class="modal-footer">
   <button type="button" class="btn btn-secondary" (click)="modal.dismiss()">
     Cancel
    </button>
    <button type="button" class="btn btn-danger" (click)="confirmDelete()">
     Delete
   </button>
 </div>
</ng-template>
```

employee-details.component.spec.ts:

```
import { ComponentFixture, TestBed } from '@angular/core/testing';
import { EmployeeDetailsComponent } from './employee-details.component';
describe('EmployeeDetailsComponent', () => {
```

```
let component: EmployeeDetailsComponent;
let fixture: ComponentFixture<EmployeeDetailsComponent>;

beforeEach(() => {
    TestBed.configureTestingModule({
        declarations: [EmployeeDetailsComponent]
    });
    fixture = TestBed.createComponent(EmployeeDetailsComponent);
    component = fixture.componentInstance;
    fixture.detectChanges();
});

it('should create', () => {
    expect(component).toBeTruthy();
});
});
```

employee-details.component.ts:

```
import { Component, OnInit, ViewChild } from '@angular/core';
import { ActivatedRoute, Router } from '@angular/router';
import { HttpClient } from '@angular/common/http';
import { NgbModal } from '@ng-bootstrap';
@Component({
  selector: 'app-employee-details',
 templateUrl: './employee-details.component.html',
  styleUrls: ['./employee-details.component.css']
})
export class EmployeeDetailsComponent implements OnInit {
  employee: any;
 @ViewChild('deleteConfirmationModal') deleteConfirmationModal: any;
  constructor(
    private route: ActivatedRoute,
    private router: Router,
    private http: HttpClient,
   private modalService: NgbModal
  ngOnInit() {
    this.route.params.subscribe(params => {
      const employeeId = +params['id'];
      this.getEmployeeDetails(employeeId);
   });
  getEmployeeDetails(employeeId: number) {
    this.http.get<any>(`http://localhost:3000/employees/${employeeId}`)
```

```
.subscribe(employee => {
      this.employee = employee;
    });
goToEmployeeList() {
  this.router.navigate(['/employees']);
deleteEmployee() {
 this.modalService.open(this.deleteConfirmationModal).result.then((result)
   // Delete confirmed, perform delete operation
   if (result === 'delete') {
      const employeeId = this.employee.id;
      this.http.delete(`http://localhost:3000/employees/${employeeId}`)
        .subscribe(() => {
          this.goToEmployeeList();
        });
  }, (dismissReason) => {
    // Dismissed without confirmation
 });
confirmDelete() {
 // Perform the delete operation
  const employeeId = this.employee.id;
  this.http.delete(`http://localhost:3000/employees/${employeeId}`)
    .subscribe(() => {
     this.goToEmployeeList();
    });
goToUpdateEmployee() {
  const employeeId = this.employee.id;
 this.router.navigate(['/employees', employeeId, 'edit']);
```

employee-edit.component.css:

```
/* CSS for update employee form */
.container {
  margin-top: 20px;
}
h2 {
  margin-bottom: 20px;
```

```
.form-group {
    margin-bottom: 15px;
}

label {
    font-weight: bold;
}

.btn-primary {
    margin-right: 10px;
    background-color: #0dcaf0;
    color: black;
}

.btn-secondary {
    margin-right: 10px;
}
```

employee-edit.component.html:

```
<app-navbar></app-navbar>
<div class="container">
 <h2>Update Employee</h2>
  <form (ngSubmit)="updateEmployee()" #employeeForm="ngForm">
    <div class="form-group">
      <label for="firstName">First Name</label>
      <input type="text" class="form-control" id="firstName" name="firstName"</pre>
[(ngModel)]="employee.first_name" required>
    </div>
    <div class="form-group">
      <label for="lastName">Last Name</label>
      <input type="text" class="form-control" id="lastName" name="lastName"</pre>
[(ngModel)]="employee.last_name" required>
    </div>
    <div class="form-group">
      <label for="email">Email</label>
      <input type="email" class="form-control" id="email" name="email"</pre>
[(ngModel)]="employee.email" required>
    <button type="submit" class="btn btn-primary">Update</button>
    <button type="button" class="btn btn-secondary"</pre>
(click)="goToEmployeeDetails()">Cancel</button>
  </form>
</div>
```

employee-edit.component.spec.ts:

```
import { ComponentFixture, TestBed } from '@angular/core/testing';
import { EmployeeEditComponent } from './employee-edit.component';
describe('EmployeeEditComponent', () => {
  let component: EmployeeEditComponent;
  let fixture: ComponentFixture<EmployeeEditComponent>;
  beforeEach(() => {
    TestBed.configureTestingModule({
      declarations: [EmployeeEditComponent]
    });
    fixture = TestBed.createComponent(EmployeeEditComponent);
    component = fixture.componentInstance;
    fixture.detectChanges();
  });
  it('should create', () => {
    expect(component).toBeTruthy();
  });
});
```

employee-edit.component.ts:

```
import { Component, OnInit } from '@angular/core';
import { ActivatedRoute, Router } from '@angular/router';
import { HttpClient } from '@angular/common/http';
@Component({
  selector: 'app-employee-edit',
  templateUrl: './employee-edit.component.html',
 styleUrls: ['./employee-edit.component.css']
export class EmployeeEditComponent implements OnInit {
  employee: any = {}; // Initialize employee object
  constructor(
    private route: ActivatedRoute,
   private router: Router,
    private http: HttpClient
  ngOnInit() {
    this.route.params.subscribe(params => {
      const employeeId = +params['id'];
      this.getEmployeeDetails(employeeId);
    });
```

```
getEmployeeDetails(employeeId: number) {
    this.http.get<any>(`http://localhost:3000/employees/${employeeId}`)
      .subscribe(
        (employee) => {
          this.employee = employee;
        },
        (error) => {
          console.error('Error:', error);
     );
 updateEmployee() {
   this.http.put(`http://localhost:3000/employees/${this.employee.id}`,
this.employee)
     .subscribe(() => {
       this.goToEmployeeDetails();
     });
 goToEmployeeDetails() {
   const employeeId = this.employee.id;
   this.router.navigate(['/employees', employeeId]);
 goToEmployeeList() {
   this.router.navigate(['/employees']);
```

employee-list.component.css:

employee-list.component.html:

```
Email
      Actions
     </thead>
   {{ employee.id }}
      {{ employee.first_name }}
      {{ employee.last_name }}
      {{ employee.email }}
       <button class="btn btn-info"</pre>
(click)="viewDetails(employee.id)">View Details</button>
      </div>
</div>
```

employee-list.component.spec.ts:

```
import { ComponentFixture, TestBed } from '@angular/core/testing';
import { EmployeeListComponent } from './employee-list.component';
describe('EmployeeListComponent', () => {
  let component: EmployeeListComponent;
  let fixture: ComponentFixture<EmployeeListComponent>;
  beforeEach(() => {
    TestBed.configureTestingModule({
      declarations: [EmployeeListComponent]
    });
    fixture = TestBed.createComponent(EmployeeListComponent);
    component = fixture.componentInstance;
    fixture.detectChanges();
  });
  it('should create', () => {
    expect(component).toBeTruthy();
 });
});
```

employee-list.component.ts:

```
import { Component, OnInit } from '@angular/core';
import { HttpClient } from '@angular/common/http';
import { Router } from '@angular/router';
```

```
@Component({
  selector: 'app-employee-list',
  templateUrl: './employee-list.component.html',
  styleUrls: ['./employee-list.component.css']
export class EmployeeListComponent implements OnInit {
  employees: any[] = [];
  constructor(private http: HttpClient, private router: Router) {}
  ngOnInit() {
    this.getEmployees();
  getEmployees() {
    this.http.get<any[]>('http://localhost:3000/employees')
      .subscribe(employees => {
        this.employees = employees;
      });
  navigateToCreateEmployee() {
    this.router.navigate(['/employees/create']);
  viewDetails(employeeId: number) {
    this.router.navigate(['/employees/', employeeId]);
```

home.component.css:

```
.container {
  margin-top: 10px;
  background-color: antiquewhite;
}
```

home.component.html:

home.component.spec.ts:

```
import { ComponentFixture, TestBed } from '@angular/core/testing';
import { HomeComponent } from './home.component';
describe('HomeComponent', () => {
  let component: HomeComponent;
  let fixture: ComponentFixture<HomeComponent>;
  beforeEach(() => {
    TestBed.configureTestingModule({
      declarations: [HomeComponent]
    });
    fixture = TestBed.createComponent(HomeComponent);
    component = fixture.componentInstance;
    fixture.detectChanges();
  });
  it('should create', () => {
   expect(component).toBeTruthy();
 });
});
```

home.component.ts:

```
import { Component } from '@angular/core';

@Component({
   selector: 'app-home',
   templateUrl: './home.component.html',
   styleUrls: ['./home.component.css']
})
export class HomeComponent {
}
```

login.component.css:

```
.container {
   display: inline-flex;
   justify-content: center;
   align-items: center;
   height: 100vh;
}
.card {
   width: 400px;
   padding: 20px;
```

```
border-radius: 10px;
 box-shadow: 0 2px 10px rgba(0, 0, 0, 0.1);
.card-title {
 text-align: center;
 font-size: 24px;
 margin-bottom: 20px;
.form-group label {
 font-weight: bold;
.form-control {
 border-radius: 5px;
.btn-primary {
 background-color: #007bff;
 border-color: #007bff;
 transition: all 0.3s ease;
.btn-primary:hover {
 background-color: #0069d9;
 border-color: #0062cc;
.btn-link {
 color: #007bff;
.btn-link:hover {
 color: #0056b3;
 text-decoration: none;
```

login.component.html:

```
<label for="username">Username</label>
  <input</pre>
    type="text"
    class="form-control"
    id="username"
    name="username"
    placeholder="Enter your username"
    [(ngModel)]="username"
    required
    *ngIf="
      loginForm &&
      loginForm.controls['username']?.invalid &&
      (loginForm.controls['username']?.dirty ||
        loginForm.controls['username']?.touched)
    class="text-danger"
   Username is required.
  </div>
</div>
<div class="form-group">
  <label for="password">Password</label>
  <input</pre>
    type="password"
    class="form-control"
    id="password"
    name="password"
    placeholder="Enter your password"
    [(ngModel)]="password"
    required
    *ngIf="
      loginForm &&
      loginForm.controls['password']?.invalid &&
      (loginForm.controls['password']?.dirty ||
        loginForm.controls['password']?.touched)
   class="text-danger"
    Password is required.
  </div>
</div>
<div class="form-check">
  <input</pre>
   type="checkbox"
```

```
class="form-check-input"
                id="rememberMe"
                name="rememberMe"
                [(ngModel)]="rememberMe"
              <label class="form-check-label" for="rememberMe"</pre>
                >Remember me</label
            </div>
            <div class="text-center mt-3">
              <button type="submit" class="btn btn-primary">Login</button>
            <div
              *ngIf="showError"
              class="text-danger mt-3"
             style="text-align: center"
             Invalid username or password.
            </div>
          </form>
         <div class="text-center mt-3">
           <a [routerLink]="['/password-change']">Forgot password?</a>
         </div>
         <div class="text-center mt-3">
             Don't have an account? <a [routerLink]="['/signup']">Sign up</a>
            </div>
       </div>
     </div>
   </div>
 </div>
</div>
```

login.component.spec.ts:

```
import { ComponentFixture, TestBed } from '@angular/core/testing';
import { LoginComponent } from './login.component';

describe('LoginComponent', () => {
   let component: LoginComponent;
   let fixture: ComponentFixture<LoginComponent>;

   beforeEach(() => {
      TestBed.configureTestingModule({
        declarations: [LoginComponent]
      });
```

```
fixture = TestBed.createComponent(LoginComponent);
  component = fixture.componentInstance;
  fixture.detectChanges();
});

it('should create', () => {
  expect(component).toBeTruthy();
});
});
```

login.component.ts:

```
import { Component, ViewChild, ElementRef, AfterViewInit } from
'@angular/core';
import { Router } from '@angular/router';
import { NgForm } from '@angular/forms';
import { UserService } from '../user.service';
@Component({
  selector: 'app-login',
 templateUrl: './login.component.html',
  styleUrls: ['./login.component.css'],
})
export class LoginComponent {
 @ViewChild('loginForm', { static: false }) loginForm!: NgForm;
 username: string = '';
  password: string = '';
  rememberMe: boolean = false;
  showError: boolean = false;
  constructor(private router: Router, private userService: UserService) {}
  login(loginForm: NgForm): void {
    if (this.loginForm && this.loginForm.invalid) {
      return;
    if (this.username === 'admin') {
      if (this.userService.isPasswordChangeRequired(this.username)) {
        this.router.navigate(['/password-change']);
      } else {
        this.router.navigate(['/home']);
    } else {
      const isValidUser = this.userService.validateUser(this.username,
this.password);
      if (isValidUser) {
        this.router.navigate(['/home']);
```

```
} else {
this.showError = true;
     }
    }
}
```

navbar.component.css:

```
.navbar-nav {
   justify-content: flex-end;
}
.form-inline {
   display: flex;
   align-items: center;
}
.navbar-collapse form.form-inline {
   margin-left: auto;
}
```

navbar.component.html:

```
<nav class="navbar navbar-expand-lg navbar-dark bg-dark">
 <div class="container">
   <a class="navbar-brand" href="#">Portal</a>
   <button
    class="navbar-toggler"
    type="button"
    data-bs-toggle="collapse"
    data-bs-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">
    <a class="nav-link" routerLink="/home">Home</a>
      <a class="nav-link" routerLink="/employees">Employees</a>
```

```
<a class="nav-link" routerLink="/login">Logout</a>
       <form class="form-inline my-2 my-lg-0" (submit)="searchEmployees()">
       <div class="input-group">
         <input</pre>
           class="form-control"
           type="search"
           placeholder="Search"
           aria-label="Search"
           [(ngModel)]="searchText"
           name="searchText"
         <button class="btn btn-outline-light" type="submit">Search</button>
       </div>
     </form>
   </div>
 </div>
</nav>
 class="modal fade"
 #employeeDetailsModal
 tabindex="-1"
 role="dialog"
 aria-labelledby="employeeDetailsModalLabel"
 aria-hidden="true"
 <div class="modal-dialog modal-dialog-centered" role="document">
   <div class="modal-content">
     <div class="modal-header">
       <h5 class="modal-title" id="employeeDetailsModalLabel">
         Employee Details
       </h5>
       <button
         type="button"
         class="close"
         data-dismiss="modal"
         aria-label="Close"
         (click)="hideEmployeeDetailsModal()"
         <span aria-hidden="true">&times;</span>
       </button>
     </div>
     <div class="modal-body">
       <strong>ID:</strong> {{ employeeId }}
```

```
<strong>Name:</strong> {{ employeeName }}
       <strong>Email:</strong> {{ employeeEmail }}
     <div class="modal-footer">
       <button
         type="button"
         class="btn btn-secondary"
         data-dismiss="modal"
         (click)="hideEmployeeDetailsModal()"
         Close
       </button>
     </div>
   </div>
 </div>
</div>
<div
 class="modal fade"
 #employeeNotFoundModal
 tabindex="-1"
 role="dialog"
 aria-labelledby="employeeNotFoundModalLabel"
 aria-hidden="true"
 <div class="modal-dialog modal-dialog-centered" role="document">
   <div class="modal-content">
     <div class="modal-header">
       <h5 class="modal-title" id="employeeNotFoundModalLabel">
         Employee Not Found
       </h5>
       <button
         type="button"
         class="close"
         data-dismiss="modal"
         aria-label="Close"
         (click)="hideEmployeeNotFoundModal()"
         <span aria-hidden="true">&times;</span>
       </button>
     </div>
     <div class="modal-body">
       Employee information doesn't exist.
     </div>
     <div class="modal-footer">
       <button
         type="button"
         class="btn btn-secondary"
         data-dismiss="modal"
```

navbar.component.spec.ts:

```
import { ComponentFixture, TestBed } from '@angular/core/testing';
import { NavbarComponent } from './navbar.component';
describe('NavbarComponent', () => {
  let component: NavbarComponent;
  let fixture: ComponentFixture<NavbarComponent>;
  beforeEach(() => {
    TestBed.configureTestingModule({
      declarations: [NavbarComponent],
    });
    fixture = TestBed.createComponent(NavbarComponent);
    component = fixture.componentInstance;
    fixture.detectChanges();
  });
  it('should create', () => {
    expect(component).toBeTruthy();
  });
});
```

navbar.component.ts:

```
import { Component, OnInit, ViewChild, ElementRef } from '@angular/core';
import { HttpClient } from '@angular/common/http';

@Component({
    selector: 'app-navbar',
    templateUrl: './navbar.component.html',
    styleUrls: ['./navbar.component.css'],
})
export class NavbarComponent implements OnInit {
    @ViewChild('employeeDetailsModal') employeeDetailsModal!: ElementRef;
    @ViewChild('employeeNotFoundModal') employeeNotFoundModal!: ElementRef;
    employeeId: string = '';
    employeeName: string = '';
    employeeEmail: string = '';
```

```
searchText: string = '';
  constructor(private http: HttpClient) {}
  ngOnInit() {}
  searchEmployees() {
    this.http
      .get<any[]>(
        `http://localhost:3000/employees?q=${this.searchText}& sort=last name`
      .subscribe(
        (response) => {
          console.log('Server Response:', response);
          if (response.length > 0) {
            const employee = response[0];
            this.employeeId = employee.id;
            this.employeeName = `${employee.first_name}
${employee.last_name}`;
            this.employeeEmail = employee.email;
            this.showEmployeeDetailsModal();
          } else {
            this.employeeId = '';
            this.employeeName = '';
            this.employeeEmail = '';
            this.showEmployeeNotFoundModal();
        },
        (error) => {
          console.error('Error:', error);
      );
 showEmployeeDetailsModal() {
    const modalElement: HTMLElement = this.employeeDetailsModal.nativeElement;
   modalElement.classList.add('show');
   modalElement.style.display = 'block';
 hideEmployeeDetailsModal() {
    const modalElement: HTMLElement = this.employeeDetailsModal.nativeElement;
   modalElement.classList.remove('show');
   modalElement.style.display = 'none';
 // Add the show and hide methods for the employee not found modal
 showEmployeeNotFoundModal() {
```

```
const modalElement: HTMLElement =
this.employeeNotFoundModal.nativeElement;
  modalElement.classList.add('show');
  modalElement.style.display = 'block';
}

hideEmployeeNotFoundModal() {
  const modalElement: HTMLElement =
this.employeeNotFoundModal.nativeElement;
  modalElement.classList.remove('show');
  modalElement.style.display = 'none';
}
```

password-change.component.css:

```
.container {
  margin-top: 20px;
.card {
  border: 1px solid #ccc;
  border-radius: 5px;
.card-body {
  padding: 20px;
.card-title {
 font-size: 20px;
  font-weight: bold;
.form-group {
 margin-bottom: 20px;
label {
  font-weight: bold;
input[type="email"],
input[type="password"],
input[type="text"] {
 width: 100%;
  padding: 10px;
  border: 1px solid #ccc;
  border-radius: 4px;
```

```
.btn-primary {
 width: 100%;
 padding: 10px;
  background-color: #007bff;
  color: #fff;
  border: none;
 border-radius: 4px;
  cursor: pointer;
.btn-primary:hover {
  background-color: #0069d9;
.text-success {
  color: #28a745;
.text-danger {
  color: #dc3545;
.text-center {
 text-align: center;
.mt-3 {
 margin-top: 15px;
.mb-3 {
 margin-bottom: 15px;
```

password-change.component.html:

```
<div class="form-group">
  <label for="email">Email</label>
  <input</pre>
    type="email"
    class="form-control"
    id="email"
    name="email"
    placeholder="Enter your email"
    [(ngModel)]="email"
    required
    *ngIf="
      passwordChangeForm.controls['email']?.invalid &&
      (passwordChangeForm.controls['email']?.dirty ||
        passwordChangeForm.controls['email']?.touched)
    class="text-danger"
    style="text-align: center"
    Email is required.
  </div>
</div>
<button</pre>
 type="button"
  class="btn btn-primary"
  (click)="validateEmail()"
 Validate Email
</button>
<div class="form-group">
  <label for="newPassword">New Password</label>
  <input</pre>
    type="password"
    class="form-control"
   id="newPassword"
   name="newPassword"
    placeholder="Enter your new password"
    [(ngModel)]="newPassword"
   required
    *ngIf="
     passwordChangeForm.controls['newPassword']?.invalid &&
```

```
(passwordChangeForm.controls['newPassword']?.dirty ||
        passwordChangeForm.controls['newPassword']?.touched)
    class="text-danger"
    style="text-align: center"
    New Password is required.
  </div>
</div>
<div class="form-group">
  <label for="confirmPassword">Confirm Password</label>
  <input</pre>
    type="password"
    class="form-control"
    id="confirmPassword"
    name="confirmPassword"
    placeholder="Confirm your new password"
    [(ngModel)]="confirmPassword"
    required
  <div
    *ngIf="
    passwordChangeForm.controls['confirmPassword']?.invalid &&
    (passwordChangeForm.controls['confirmPassword']?.dirty ||
      passwordChangeForm.controls['confirmPassword']?.touched)
    class="text-danger"
    style="text-align: center"
    Confirm Password is required.
  </div>
  <div *ngIf="passwordsMismatch" class="text-danger">
    Passwords do not match.
  </div>
</div>
<div class="text-center mt-3">
  <button type="submit" class="btn btn-primary">
    Change Password
  </button>
</div>
<div
  *ngIf="successMessage"
  class="text-success mt-3"
  style="text-align: center"
  {{ successMessage }}
</div>
```

password-change.component.spec.ts:

```
import { ComponentFixture, TestBed } from '@angular/core/testing';
import { PasswordChangeComponent } from './password-change.component';
describe('PasswordChangeComponent', () => {
  let component: PasswordChangeComponent;
  let fixture: ComponentFixture<PasswordChangeComponent>;
  beforeEach(() => {
    TestBed.configureTestingModule({
      declarations: [PasswordChangeComponent]
    });
    fixture = TestBed.createComponent(PasswordChangeComponent);
    component = fixture.componentInstance;
    fixture.detectChanges();
  });
  it('should create', () => {
    expect(component).toBeTruthy();
 });
});
```

password-change.component.ts:

```
import { Component, ViewChild } from '@angular/core';
import { Router } from '@angular/router';
import { NgForm } from '@angular/forms';
import { UserService } from '../user.service';

@Component({
    selector: 'app-password-change',
    templateUrl: './password-change.component.html',
    styleUrls: ['./password-change.component.css'],
```

```
})
export class PasswordChangeComponent {
 @ViewChild('passwordChangeForm', { static: false })
 passwordChangeForm!: NgForm;
 email: string = '';
 newPassword: string = '';
  confirmPassword: string = '';
  passwordsMismatch: boolean = false;
  emailValidated: boolean = false;
  successMessage: string = '';
  errorMessage: string = '';
 constructor(private router: Router, private userService: UserService) {}
 validateEmail(): void {
    // Check if the email exists in the signup page data
    const isEmailValid = this.userService.isEmailExists(this.email);
   if (isEmailValid) {
     // Display success message
     this.successMessage = 'Email validated successfully.';
     this.emailValidated = true;
    } else {
     // Display error message
     this.errorMessage = 'Email does not exist.';
     this.emailValidated = false;
  changePassword(): void {
   // Check if the email is validated
   if (!this.emailValidated) {
     this.errorMessage = 'Please validate your email first.';
     return;
   // Check if the new passwords match
   if (this.newPassword !== this.confirmPassword) {
      this.passwordChangeForm.controls['confirmPassword'].markAsTouched();
     this.passwordsMismatch = true;
     return;
   // Change the password
    this.userService.changePassword(this.email, this.newPassword);
   this.successMessage = 'Password changed successfully.';
```

```
// Redirect to the login page
  this.router.navigate(['/login']);
}
```

signup.component.css:

```
.container {
 display: inline-flex;
 justify-content: center;
 align-items: center;
 height: 100vh;
.card {
 width: 400px;
 padding: 20px;
 border-radius: 10px;
 box-shadow: 0 2px 10px rgba(0, 0, 0, 0.1);
.card-title {
 text-align: center;
 font-size: 24px;
 margin-bottom: 20px;
.form-group label {
 font-weight: bold;
.form-control {
 border-radius: 5px;
.error-message {
color: red;
.btn-primary {
 background-color: #007bff;
 border-color: #007bff;
 transition: all 0.3s ease;
.btn-primary:hover {
 background-color: #0069d9;
 border-color: #0062cc;
```

```
}
.btn-link {
  color: #007bff;
}
.btn-link:hover {
  color: #0056b3;
  text-decoration: none;
}
```

signup.component.html:

```
<div class="container">
 <div class="row justify-content-center">
    <div class="col-md-6">
      <div class="card mt-5">
        <div class="card-body">
          <h5 class="card-title text-center">Sign Up</h5>
          <form (ngSubmit)="signup()" [formGroup]="signupForm">
            <!-- Form fields -->
            <div class="form-group">
              <label for="username">Username</label>
              <input</pre>
                type="text"
                class="form-control"
                id="username"
                formControlName="username"
                placeholder="Enter your username"
            </div>
            <div class="form-group">
              <label for="email">Email</label>
              <input</pre>
                type="email"
                class="form-control"
                id="email"
                formControlName="email"
                placeholder="Enter your email"
            </div>
            <div class="form-group">
              <label for="password">Password</label>
              <input</pre>
                type="password"
                class="form-control"
                id="password"
                formControlName="password"
                placeholder="Enter your password"
```

```
</div>
          <div class="text-center mt-3">
            <button type="submit" class="btn btn-primary">Sign Up</button>
          </div>
        </form>
        <div class="text-center mt-3">
          {{ errorMessage
}}
        </div>
        <div class="text-center mt-3">
            Already have an account? <a [routerLink]="['/login']">Log in</a>
          </div>
       </div>
     </div>
   </div>
 </div>
</div>
```

signup.component.spec.ts:

```
import { ComponentFixture, TestBed } from '@angular/core/testing';
import { SignupComponent } from './signup.component';
describe('SignupComponent', () => {
  let component: SignupComponent;
  let fixture: ComponentFixture<SignupComponent>;
  beforeEach(() => {
    TestBed.configureTestingModule({
      declarations: [SignupComponent]
    });
    fixture = TestBed.createComponent(SignupComponent);
    component = fixture.componentInstance;
    fixture.detectChanges();
  });
  it('should create', () => {
    expect(component).toBeTruthy();
 });
});
```

signup.component.ts:

```
import { Component } from '@angular/core';
import { NgForm, FormBuilder, FormGroup, Validators } from '@angular/forms';
```

```
import { Router } from '@angular/router';
import { UserService } from '../user.service';
@Component({
  selector: 'app-signup',
  templateUrl: './signup.component.html',
  styleUrls: ['./signup.component.css'],
})
export class SignupComponent {
  signupForm: FormGroup;
  errorMessage: string = '';
  constructor(
    private router: Router,
    private formBuilder: FormBuilder,
    private userService: UserService
    this.signupForm = this.formBuilder.group({
      username: ['', Validators.required],
      email: ['', [Validators.required, Validators.email]],
      password: ['', [Validators.required, Validators.minLength(8)]],
    });
  signup(): void {
    // Check if the form is valid
    // if (this.signupForm.invalid) {
    // // Set error message and return
    // this.errorMessage = 'Error: Invalid form data.';
    // Check if any field is empty
    const { username, email, password } = this.signupForm.value;
    if (!username || !email || !password) {
      this.errorMessage = 'Error: All fields are required.';
      return;
    // Check if the email format is valid
    const emailRegex = /^[^\s@]+@[^\s@]+\.[^\s@]+$/;
    if (!emailRegex.test(email)) {
      this.errorMessage = 'Error: Invalid email format.';
      return;
    // Check if the password meets the minimum requirements (e.g., at least 8
```

```
if (password.length < 8) {</pre>
      this.errorMessage = 'Error: Password must be at least 8 characters
long.';
      return;
    // Create a new user object
    const newUser = {
      username,
      email,
      password,
    };
    // Call the userService method to check for duplicate username or email
    if (!this.userService.isUniqueUser(newUser)) {
      this.errorMessage = 'Error: Account already exists.';
      return;
    // Call the userService method to store the user data
    this.userService.addUser(newUser);
    // Redirect to the login page
    this.router.navigate(['/login']);
```

app-routing.module.ts:

```
import { NgModule } from '@angular/core';
import { Routes, RouterModule } from '@angular/router';
import { LoginComponent } from './login/login.component';
import { EmployeeListComponent } from './employee-list/employee-
list.component';
import { EmployeeDetailsComponent } from './employee-details/employee-
details.component';
import { EmployeeCreateComponent } from './employee-create/employee-
create.component';
import { EmployeeEditComponent } from './employee-edit/employee-
edit.component';
import { SignupComponent } from './signup/signup.component';
import { PasswordChangeComponent } from './password-change/password-
change.component';
import { HomeComponent } from './home/home.component';
const routes: Routes = [
  { path: 'login', component: LoginComponent },
 { path: 'signup', component: SignupComponent},
```

```
{ path: 'password-change', component: PasswordChangeComponent},
  { path: 'home', component: HomeComponent},
  { path: 'employees', component: EmployeeListComponent },
  { path: 'employees/create', component: EmployeeCreateComponent },
  { path: 'employees/:id', component: EmployeeDetailsComponent },
  { path: 'employees/:id/edit', component: EmployeeEditComponent },
  { path: '', redirectTo: '/login', pathMatch: 'full' },
];

@NgModule({
  imports: [RouterModule.forRoot(routes)],
  exports: [RouterModule]
})
export class AppRoutingModule { }
```

app.component.css:

app.component.html:

```
<router-outlet></router-outlet>
```

app.component.spec.ts:

```
import { TestBed } from '@angular/core/testing';
import { RouterTestingModule } from '@angular/router/testing';
import { AppComponent } from './app.component';
describe('AppComponent', () => {
 beforeEach(() => TestBed.configureTestingModule({
    imports: [RouterTestingModule],
    declarations: [AppComponent]
 }));
 it('should create the app', () => {
    const fixture = TestBed.createComponent(AppComponent);
    const app = fixture.componentInstance;
    expect(app).toBeTruthy();
 });
 it(`should have as title 'event-management-app'`, () => {
    const fixture = TestBed.createComponent(AppComponent);
    const app = fixture.componentInstance;
    expect(app.title).toEqual('event-management-app');
 });
 it('should render title', () => {
    const fixture = TestBed.createComponent(AppComponent);
   fixture.detectChanges();
```

```
const compiled = fixture.nativeElement as HTMLElement;
  expect(compiled.querySelector('.content
span')?.textContent).toContain('event-management-app app is running!');
  });
});
```

app.component.ts:

```
import { Component } from '@angular/core';

@Component({
   selector: 'app-root',
   templateUrl: './app.component.html',
   styleUrls: ['./app.component.css']
})

export class AppComponent {
   title = 'event-management-app';
}
```

app.module.ts:

```
import { NgModule } from '@angular/core';
import { BrowserModule } from '@angular/platform-browser';
import { ReactiveFormsModule } from '@angular/forms';
import { FormsModule } from '@angular/forms';
import { HttpClientModule } from '@angular/common/http';
import { NgbModule } from '@ng-bootstrap/ng-bootstrap';
import { AppRoutingModule } from './app-routing.module';
import { AppComponent } from './app.component';
import { LoginComponent } from './login/login.component';
import { SignupComponent } from './signup/signup.component';
import { EmployeeListComponent } from './employee-list/employee-
list.component';
import { EmployeeDetailsComponent } from './employee-details/employee-
details.component';
import { EmployeeCreateComponent } from './employee-create/employee-
create.component';
import { EmployeeEditComponent } from './employee-edit/employee-
edit.component';
import { PasswordChangeComponent } from './password-change/password-
change.component';
import { HomeComponent } from './home/home.component';
import { NavbarComponent } from './navbar/navbar.component';
@NgModule({
  declarations: [
    AppComponent,
    LoginComponent,
```

```
SignupComponent,
    EmployeeListComponent,
    EmployeeDetailsComponent,
    EmployeeCreateComponent,
    EmployeeEditComponent,
    PasswordChangeComponent,
   HomeComponent,
   NavbarComponent
  ],
  imports: [
    BrowserModule,
    AppRoutingModule,
    ReactiveFormsModule,
    FormsModule,
   HttpClientModule,
   NgbModule
  providers: [],
 bootstrap: [AppComponent]
})
export class AppModule { }
```

user.service.spec.ts:

```
import { TestBed } from '@angular/core/testing';
import { UserService } from './user.service';

describe('UserService', () => {
    let service: UserService;

beforeEach(() => {
        TestBed.configureTestingModule({});
        service = TestBed.inject(UserService);
    });

it('should be created', () => {
        expect(service).toBeTruthy();
    });
});
```

user.service.ts:

```
import { Injectable } from '@angular/core';
@Injectable({
   providedIn: 'root',
})
export class UserService {
```

```
users: any[] = [];
 passwordChangeRequired: boolean = true; // Default value for password change
requirement
 constructor() {}
 isUniqueUser(newUser: any): boolean {
   const existingUser = this.users.find(
      (user) =>
       user.username === newUser.username || user.email === newUser.email
   );
   return !existingUser; // Return true if the user is unique, false
otherwise
 addUser(user: any): void {
   this.users.push(user); // Add the new user to the list
 isPasswordChangeRequired(username: string): boolean {
   // Implement the logic to check if password change is required for the
given username
   // You can use the username parameter to identify the admin user
   return this.passwordChangeRequired; // Return the password change
requirement status
 validateUser(username: string, password: string): boolean {
   // Find the user with the matching username
   const user = this.users.find((user) => user.username === username);
   // Check if the user exists and the password matches
   if (user && user.password === password) {
     return true; // Credentials are valid
   return false; // Credentials are invalid
 changePassword(email: string, newPassword: string): void {
   // Find the user with the matching email
   const user = this.users.find((user) => user.email === email);
    // Update the user's password
```

```
if (user) {
    user.password = newPassword;
}

// Reset the password change requirement
    this.passwordChangeRequired = false;
}

isEmailExists(email: string): boolean {
    // Check if the email exists in the signup page data
    const existingUser = this.users.find((user) => user.email === email);
    return !!existingUser; // Return true if the email exists, false otherwise
}
```

index.html:

main.ts:

```
import { platformBrowserDynamic } from '@angular/platform-browser-dynamic';
import { AppModule } from './app/app.module';

platformBrowserDynamic().bootstrapModule(AppModule)
    .catch(err => console.error(err));
```

styles.css:

```
/* You can add global styles to this file, and also import other style files
*/
```

.editorconfig:

```
# Editor configuration, see https://editorconfig.org
root = true
```

```
[*]
charset = utf-8
indent_style = space
indent_size = 2
insert_final_newline = true
trim_trailing_whitespace = true

[*.ts]
quote_type = single

[*.md]
max_line_length = off
trim_trailing_whitespace = false
```

angular.json:

```
"$schema": "./node_modules/@angular/cli/lib/config/schema.json",
"version": 1,
"newProjectRoot": "projects",
"projects": {
  "event-management-app": {
    "projectType": "application",
    "schematics": {},
    "root": "",
    "sourceRoot": "src",
    "prefix": "app",
    "architect": {
      "build": {
        "builder": "@angular-devkit/build-angular:browser",
        "options": {
          "outputPath": "dist/event-management-app",
          "index": "src/index.html",
          "main": "src/main.ts",
          "polyfills": ["zone.js"],
          "tsConfig": "tsconfig.app.json",
          "assets": ["src/favicon.ico", "src/assets"],
          "styles": [
            "node modules/bootstrap/dist/css/bootstrap.min.css",
            "src/styles.css"
          ],
          "scripts": [
            "node_modules/jquery/dist/jquery.min.js",
            "node_modules/bootstrap/dist/js/bootstrap.min.js"
        },
        "configurations": {
         "production": {
```

```
"budgets": [
          "type": "initial",
          "maximumWarning": "500kb",
          "maximumError": "1mb"
        },
          "type": "anyComponentStyle",
          "maximumWarning": "2kb",
          "maximumError": "4kb"
      ],
      "outputHashing": "all"
    "development": {
      "buildOptimizer": false,
      "optimization": false,
      "vendorChunk": true,
      "extractLicenses": false,
      "sourceMap": true,
      "namedChunks": true
 },
  "defaultConfiguration": "production"
},
"serve": {
  "builder": "@angular-devkit/build-angular:dev-server",
  "configurations": {
    "production": {
      "browserTarget": "event-management-app:build:production"
    "development": {
      "browserTarget": "event-management-app:build:development"
 },
  "defaultConfiguration": "development"
"extract-i18n": {
  "builder": "@angular-devkit/build-angular:extract-i18n",
  "options": {
    "browserTarget": "event-management-app:build"
},
  "builder": "@angular-devkit/build-angular:karma",
 "options": {
    "polyfills": ["zone.js", "zone.js/testing"],
   "tsConfig": "tsconfig.spec.json",
```

package.json:

```
"name": "event-management-app",
"version": "0.0.0",
"scripts": {
  "ng": "ng",
  "start": "ng serve",
  "build": "ng build",
  "watch": "ng build --watch --configuration development",
  "test": "ng test",
  "json:server": "json-server --watch db.json"
},
"private": true,
"dependencies": {
  "@angular/animations": "^16.1.0",
  "@angular/common": "^16.1.0",
  "@angular/compiler": "^16.1.0",
  "@angular/core": "^16.1.0",
  "@angular/forms": "^16.1.0",
  "@angular/platform-browser": "^16.1.0",
  "@angular/platform-browser-dynamic": "^16.1.0",
  "@angular/router": "^16.1.0",
  "@ng-bootstrap/ng-bootstrap": "^15.1.0",
  "@types/bootstrap": "^5.2.6",
  "bootstrap": "^5.3.0",
  "jquery": "^3.7.0",
  "rxjs": "~7.8.0",
  "tslib": "^2.3.0",
  "zone.is": "~0.13.0"
"devDependencies": {
  "@angular-devkit/build-angular": "^16.1.3",
  "@angular/cli": "~16.1.3",
  "@angular/compiler-cli": "^16.1.0",
  "@types/jasmine": "~4.3.0",
```

```
"@types/jest": "^29.5.3",
    "@types/jquery": "^3.5.16",
    "jasmine-core": "~4.6.0",
    "karma": "~6.4.0",
    "karma-chrome-launcher": "~3.2.0",
    "karma-coverage": "~2.2.0",
    "karma-jasmine": "~5.1.0",
    "karma-jasmine-html-reporter": "~2.1.0",
    "typescript": "~5.1.3"
}
```

tsconfig.app.json:

```
/* To learn more about this file see: https://angular.io/config/tsconfig. */
{
    "extends": "./tsconfig.json",
    "compilerOptions": {
        "outDir": "./out-tsc/app",
        "types": []
    },
    "files": [
        "src/main.ts"
    ],
    "include": [
        "src/**/*.d.ts"
    ]
}
```

tsconfig.json:

```
To learn more about this file see: https://angular.io/config/tsconfig. */
"compileOnSave": false,
"compilerOptions": {
 "types": ["jquery", "jest"],
 "baseUrl": "./",
 "outDir": "./dist/out-tsc",
 "forceConsistentCasingInFileNames": true,
 "strict": true,
 "noImplicitOverride": true,
 "noPropertyAccessFromIndexSignature": true,
 "noImplicitReturns": true,
 "noFallthroughCasesInSwitch": true,
 "sourceMap": true,
 "declaration": false,
 "downlevelIteration": true,
 "experimentalDecorators": true,
 "moduleResolution": "node",
```

```
"importHelpers": true,
    "target": "ES2022",
    "module": "ES2022",
    "useDefineForClassFields": false,
    "lib": ["ES2022", "dom"]
},
    "angularCompilerOptions": {
        "enableI18nLegacyMessageIdFormat": false,
        "strictInjectionParameters": true,
        "strictInputAccessModifiers": true,
        "strictTemplates": true
}
```

tsconfig.spec.json:

```
/* To learn more about this file see: https://angular.io/config/tsconfig. */
{
    "extends": "./tsconfig.json",
    "compilerOptions": {
        "outDir": "./out-tsc/spec",
        "types": [
            "jasmine"
        ]
    },
    "include": [
        "src/**/*.spec.ts",
        "src/**/*.d.ts"
    ]
}
```