**Algorithm:**

DESCRIPTION

Create a dynamic and responsive web application for booking movie tickets online for different genres and languages.

**Background of the problem statement:**  
NMS Cinemas is a chain of single screen theatres that screen movie shows of different genres and languages at very genuine prices. It was established in 2004 in Pune, India. Recently, the business analysts noticed a decline in sales since 2010. They found out that the online booking of movie tickets from apps, such as BookMyShow and Paytm were gaining more profit by eliminating middlemen from the equation. As a result, the team decided to hire a Full Stack developer to develop an online movie ticket booking web application with a rich and user-friendly interface.  
You are hired as the Full Stack Java developer and are asked to develop the web application. The management team has provided you with the requirements and their business model so that you can easily arrange different components of the application.

**Features of the application:**

1. Registration
2. Login
3. Payment gateway
4. Searching
5. Filtering
6. Sorting
7. Dynamic data
8. Responsive and compatible with different devices

**Recommended technologies:**

1. Database management: MySQL and Oracle
2. Backend logic: Java programming, NodeJS
3. Frontend development: JSP, Angular, Bootstrap, HTML/CSS, and Javascript
4. Automation and testing technologies: Selenium, Jasmine, and TestNG
5. DevOps and production technologies: Git, GitHub, Jenkins, Docker, Kubernetes, and AWS

**Project development guidelines:**

* The project will be delivered within four sprints with every sprint delivering a minimal viable product.
* It is mandatory to perform proper sprint planning with user stories to develop all the components of the project.
* The learner can use any technology from the above-mentioned technologies for different layers of the project.
* The web application should be responsive and should fetch or send data dynamically without hardcoded values.
* The learner must maintain the version of the application over GitHub and every new change should be sent to the repository.
* The learner must implement a CI/CD pipeline using Jenkins.
* The learner should also deploy and host the application on an AWS EC2 instance.
* The learner should also implement automation testing before the application enters the CI/CD pipeline.
* The learner should use Git branching to do basic automation testing of the application in it separately.
* The learner should make a rich frontend of the application, which is user- friendly and easy for the user to navigate through the application.
* There will be two portals in the application, namely admin and user portal.

**Admin Portal:**  
It deals with all the backend data generation and product information. The admin user should be able to:

* Add or remove different genres to or from the application to build a rich product line
* Edit movie details like name, ticket price, language, description, and show timings to keep it aligned to the current prices
* Enable or disable the movie shows from the application

**User Portal:**  
It deals with the user activities. The end-user should be able to:

* Sign-in to the application to maintain a record of activities
* Search for movie tickets based on the search keyword
* Apply filters and sort results based on different genres
* Add all the selected movie tickets to a cart and customize the purchase at the end
* Experience a seamless payment process
* Receive a booking summary page once the payment is complete

**Source Code:**

**FRONT END:**

**About us:**

<div class="about-us-container">

  <div class="about-us-wrapper postion-relative">

    <div class="about-us-banner">

      <div class="about-us-banner-text h-100">

        <h1 class="fs-1">

          {{ title }}

        </h1>

        <h2 class="fs-2 text-uppercase">WE provide entertainment</h2>

      </div>

    </div>

  </div>

  <div class="description mt-4">

    <div class="mx-4">

      <h1 class="fs-2">About Us</h1>

      <div class="underline text-warning"></div>

    </div>

    <p class="text-muted text-start px-3 p-lg-4 p-md-3">

      22 years ago in South Africa a seed of an idea was planted, a dream was

      shared. Inception happened. 22 years on, we look back at what we've built.

      Leave it up to us, and we'd love to do it all over again. Here's our story

    </p>

  </div>

  <div class="testimonials p-lg-5 bg-dark text-white p-md-3 mt-4">

    <h1 class="fs-2 pb-5 text-center">Our Happy Customer</h1>

    <div class="testimonials-list row g-0">

      <div class="testimonial-card col-4 px-4 my-4">

        <div class="testimonial text-center">

          <div class="image mb-2 col-3 mx-auto">

            <img

              mat-card-image=""

              src="https://material.angular.io/assets/img/examples/shiba2.jpg"

              alt="Photo of a Shiba Inu"

              class="mat-card-image rounded-circle"

              height="120"

              width="120"

            />

          </div>

          <div class="comments">

            <h3 class="fs-3 user">User 1</h3>

            <div class="text-muted text-start">

              22 years ago in South Africa a seed of an idea was planted, a

              dream was shared. Inception happened. 22 years on, we look back at

              what we've built. Leave it up to us, and we'd love to do it all

              over again. Here's our story

            </div>

          </div>

        </div>

      </div>

      <div class="testimonial-card col-4 px-4 my-4">

        <div class="testimonial text-center">

          <div class="image mb-2 col-3 mx-auto">

            <img

              mat-card-image=""

              src="https://material.angular.io/assets/img/examples/shiba2.jpg"

              alt="Photo of a Shiba Inu"

              class="mat-card-image rounded-circle"

              height="120"

              width="120"

            />

          </div>

          <div class="comments">

            <h3 class="fs-3 user">User 2</h3>

            <div class="text-muted text-start px-3">

              22 years ago in South Africa a seed of an idea was planted, a

              dream was shared. Inception happened. 22 years on, we look back at

              what we've built. Leave it up to us, and we'd love to do it all

              over again. Here's our story

            </div>

          </div>

        </div>

      </div>

      <div class="testimonial-card col-4 px-4 my-4">

        <div class="testimonial text-center">

          <div class="image mb-2 col-3 mx-auto">

            <img

              mat-card-image=""

              src="https://material.angular.io/assets/img/examples/shiba2.jpg"

              alt="Photo of a Shiba Inu"

              class="mat-card-image rounded-circle border-1 border-info"

              height="120"

              width="120"

            />

          </div>

          <div class="comments">

            <h3 class="fs-3 user">User 3</h3>

            <div class="text-muted text-start px-3">

              22 years ago in South Africa a seed of an idea was planted, a

              dream was shared. Inception happened. 22 years on, we look back at

              what we've built. Leave it up to us, and we'd love to do it all

              over again. Here's our story

            </div>

          </div>

        </div>

      </div>

    </div>

  </div>

  <div class="branches mt-4 py-5">

    <div class="mx-4">

      <h1 class="fs-2">Our Branches</h1>

      <div class="underline"></div>

    </div>

    <div class="row g-0 justify-content-around align-content-center">

      <mat-card class="col-3 mx-3 my-3 bg-warning" color="accent"

        >Chennai</mat-card

      >

      <mat-card class="col-3 mx-3 my-3 bg-warning" color="accent"

        >Bangalore</mat-card

      >

      <mat-card class="col-3 mx-3 my-3 bg-warning" color="accent"

        >Coimbatore</mat-card

      >

      <mat-card class="col-3 mx-3 my-3 bg-warning" color="accent"

        >Hyderabad</mat-card

      >

      <mat-card class="col-3 mx-3 my-3 bg-warning" color="accent"

        >Goa</mat-card

      >

      <mat-card class="col-3 mx-3 my-3 bg-warning" color="accent"

        >Kochi</mat-card

      >

    </div>

  </div>

</div>

**Auditorium Forms:**

<div class="form-container">

  <div class="mx-auto text-center bg-color">

    <div class="container py-5">

      <h1 class="fs-2 text-dark py-5 text-uppercase">

        Register New Auditorium Here

      </h1>

    </div>

  </div>

  <div class="form-holder border border-4 border-info rounded mx-5">

    <form [formGroup]="auditoriumForm" (ngSubmit)="onSubmit()">

      <mat-vertical-stepper [linear]="true" #stepper>

        <mat-step [stepControl]="auditoriumForm">

          <ng-template matStepLabel>Auditorium Details</ng-template>

          <div class="row g-0 my-3 justify-content-around">

            <div class="col-sm-12 col-lg-5 mx-lg-2">

              <mat-form-field

                class="d-block w-100 text-dark"

                appearance="outline"

              >

                <mat-label>Name</mat-label>

                <input

                  matInput

                  placeholder="Auditorium Name"

                  formControlName="name"

                />

                <mat-error \*ngIf="nameErrors">{{ nameErrors }}</mat-error>

              </mat-form-field>

            </div>

            <div class="col-sm-12 col-lg-5 mx-lg-2">

              <mat-form-field

                class="d-block w-100 text-dark"

                appearance="outline"

              >

                <mat-label>Image URL</mat-label>

                <input

                  matInput

                  placeholder="Image Link"

                  formControlName="image"

                />

              </mat-form-field>

            </div>

            <div class="col-sm-12 col-lg-5 mx-lg-2">

              <mat-form-field

                class="d-block w-100 text-dark"

                appearance="outline"

              >

                <mat-label>Seating Capacity</mat-label>

                <input matInput formControlName="seatCapacity" readonly />

              </mat-form-field>

            </div>

            <div class="col-sm-12 col-lg-5 mx-lg-2">

              <mat-form-field

                class="d-block w-100 text-dark"

                appearance="outline"

              >

                <mat-label>Email Id</mat-label>

                <input

                  matInput

                  placeholder="Email Id"

                  formControlName="email"

                />

                <mat-error \*ngIf="emailErrors">{{ emailErrors }}</mat-error>

              </mat-form-field>

            </div>

            <div class="col-sm-12 col-lg-5 mx-lg-2">

              <mat-form-field

                class="d-block w-100 text-dark"

                appearance="outline"

              >

                <mat-label>Customer Care Number</mat-label>

                <input

                  matInput

                  placeholder="Cust Care No"

                  formControlName="customerCareNo"

                />

                <mat-error \*ngIf="customerCareNoErrors">{{

                  customerCareNoErrors

                }}</mat-error>

              </mat-form-field>

            </div>

            <div class="col-sm-12 col-lg-5 mx-lg-2">

              <mat-form-field

                class="d-block w-100 text-dark"

                appearance="outline"

              >

                <mat-label>Address</mat-label>

                <input

                  matInput

                  placeholder="Address"

                  formControlName="address"

                />

                <mat-error \*ngIf="addressErrors">{{ addressErrors }}</mat-error>

              </mat-form-field>

            </div>

          </div>

          <div>

            <button mat-button matStepperNext type="button">Next</button>

          </div>

        </mat-step>

        <mat-step [stepControl]="auditoriumForm.get('safeties')!" optional>

          <ng-template matStepLabel>Add Safeties</ng-template>

          <div class="row g-0 justify-content-around">

            <div

              class="col-sm-12 col-lg-5 form-field"

              formArrayName="safeties"

              \*ngFor="let safety of safeties.controls; index as i"

            >

              <mat-form-field

                class="d-block w-100 text-dark"

                appearance="outline"

              >

                <mat-label>Safety</mat-label>

                <input

                  matInput

                  placeholder="Hand Sanitizers Available"

                  [formControlName]="i"

                  [attr.list]="'safety-' + i"

                />

                <datalist [id]="'safety-' + i">

                  <option [value]="safety" \*ngFor="let safety of allSafeties">

                    {{ safety }}

                  </option>

                </datalist>

                <mat-error \*ngIf="safeties.touched">

                  <span \*ngIf="safety.errors?.required"

                    >Safety cannot be empty</span

                  >

                  <span \*ngIf="safety.errors?.uniqueName"

                    >Safety already added</span

                  >

                </mat-error>

              </mat-form-field>

              <mat-icon

                class="fs-2 w-auto text-danger delete-icon"

                (click)="removeSafety(i)"

                aria-hidden="false"

                matTooltip="Remove the Safety"

                aria-label="delete icon"

                >delete</mat-icon

              >

            </div>

          </div>

          <div class="text-center text-primary mt-4">

            <mat-icon

              class="pe-cursor fs-2"

              aria-hidden="false"

              matTooltip="Add one more safety"

              aria-label="add\_circle icon"

              (click)="addSafety()"

              >add\_circle</mat-icon

            >

          </div>

          <div>

            <button mat-button matStepperPrevious type="button">Back</button>

            <button mat-button matStepperNext type="button">Next</button>

          </div>

        </mat-step>

        <mat-step [stepControl]="auditoriumForm.get('facilities')!" optional>

          <ng-template matStepLabel>Add Facilities</ng-template>

          <div class="row g-0 justify-content-around">

            <div

              class="col-sm-12 col-lg-5 form-field"

              formArrayName="facilities"

              \*ngFor="let facility of facilities.controls; index as i"

            >

              <mat-form-field

                class="d-block w-100 text-dark"

                appearance="outline"

              >

                <mat-label>Facility</mat-label>

                <input

                  matInput

                  placeholder="Parking Facility"

                  [formControlName]="i"

                  [attr.list]="'facility-' + i"

                />

                <datalist [id]="'facility-' + i">

                  <option

                    [value]="facility"

                    \*ngFor="let facility of allFacilities"

                  >

                    {{ facility }}

                  </option>

                </datalist>

                <mat-error \*ngIf="facilities.touched">

                  <span \*ngIf="facility.errors?.required"

                    >Facility cannot be empty</span

                  >

                  <span \*ngIf="facility.errors?.uniqueName"

                    >Facility already added</span

                  >

                </mat-error>

              </mat-form-field>

              <mat-icon

                class="fs-2 w-auto text-danger delete-icon"

                (click)="removeFacility(i)"

                aria-hidden="false"

                matTooltip="Remove the Facility"

                aria-label="delete icon"

                >delete</mat-icon

              >

            </div>

          </div>

          <div class="text-center text-primary mt-4">

            <mat-icon

              class="pe-cursor fs-2"

              aria-hidden="false"

              matTooltip="Add one more facility"

              aria-label="add\_circle icon"

              (click)="addFacility()"

              >add\_circle</mat-icon

            >

          </div>

          <div>

            <button mat-button matStepperPrevious type="button">Back</button>

            <button mat-button matStepperNext type="button">Next</button>

          </div>

        </mat-step>

        <mat-step [stepControl]="auditoriumForm.get('shows')!" optional>

          <ng-template matStepLabel>Add Shows</ng-template>

          <div

            class="w-100"

            formArrayName="shows"

            \*ngFor="let show of shows.controls; index as i"

          >

            <div

              class="

                row

                g-0

                justify-content-around

                align-content-center

                form-field

              "

              [formGroupName]="i"

            >

              <div class="col-lg-5 col-sm-12">

                <mat-form-field

                  class="d-block w-100 text-dark"

                  appearance="outline"

                >

                  <mat-label>Show Name</mat-label>

                  <input

                    matInput

                    formControlName="name"

                    [attr.list]="'show-name-' + i"

                  />

                  <datalist [id]="'show-name-' + i">

                    <option \*ngFor="let show of showNames" [value]="show">

                      {{ show }}

                    </option>

                  </datalist>

                  <mat-error \*ngIf="shows.touched">

                    <span \*ngIf="show.get('name')?.errors?.required"

                      >Show Name cannot be empty</span

                    >

                    <span \*ngIf="show.get('name')?.errors?.uniqueName"

                      >Show Name already added</span

                    >

                  </mat-error>

                </mat-form-field>

              </div>

              <div class="col-lg-5 col-sm-12">

                <mat-form-field

                  class="d-block w-100 text-dark"

                  appearance="outline"

                >

                  <mat-label>Show Timing</mat-label>

                  <input

                    type="time"

                    matInput

                    placeholder="Matnee"

                    formControlName="startTime"

                  />

                  <mat-error \*ngIf="shows.touched">

                    <span \*ngIf="show.get('startTime')?.errors?.required">

                      Show Start Time cannot be empty</span

                    >

                    <span \*ngIf="show.get('startTime')?.errors?.uniqueTime">

                      Time gap between the shows must be at-least 3 hours</span

                    >

                  </mat-error>

                </mat-form-field>

              </div>

              <mat-icon

                class="fs-2 w-auto text-danger delete-icon"

                (click)="removeShow(i)"

                aria-hidden="false"

                matTooltip="Remove the Show"

                aria-label="delete icon"

                >delete</mat-icon

              >

            </div>

          </div>

          <div class="text-center text-primary mt-4">

            <mat-icon

              class="pe-cursor fs-2"

              aria-hidden="false"

              matTooltip="Add one more facility"

              aria-label="add\_circle icon"

              (click)="addShow()"

              >add\_circle</mat-icon

            >

          </div>

          <div>

            <button mat-button matStepperPrevious type="button">Back</button>

            <button mat-button matStepperNext type="button">Next</button>

          </div>

        </mat-step>

        <mat-step>

          <ng-template matStepLabel>Review</ng-template>

          <pre>

            {{ auditoriumForm.value | json }}

          </pre>

          <div>

            <button mat-button matStepperPrevious type="button">Back</button>

            <button

              mat-button

              color="primary"

              [disabled]="!auditoriumForm.valid"

            >

              Submit

            </button>

          </div>

        </mat-step>

      </mat-vertical-stepper>

    </form>

  </div>

</div>

**Contact Us:**

<div class="contact-us-container">

  <div class="contact-us-wrapper postion-relative">

    <div class="contact-us-banner">

      <div class="contact-us-banner-text h-100">

        <h1 class="fs-1">Contact Us</h1>

        <h2 class="fs-2 text-uppercase">Drop us a line, get in touch</h2>

      </div>

    </div>

  </div>

  <div class="get-in-touch my-5">

    <div class="row g-0 justify-content-around">

      <div class="write-to-us col-sm-12 col-md-12 col-lg-7">

        <h1 class="fs-2">Write to us by filling in the form below</h1>

        <div class="underline"></div>

        <div class="form-container">

          <form class="example-form col-sm-12 col-lg-8 mx-auto">

            <mat-form-field

              class="example-full-width d-block text-dark"

              appearance="standard"

            >

              <mat-label class="text-dark">Your Name</mat-label>

              <input type="text" matInput class="fs-5 text-dark" />

            </mat-form-field>

            <mat-form-field

              class="example-full-width d-block w-100 text-dark"

              appearance="standard"

            >

              <mat-label class="text-dark">Email Id</mat-label>

              <input type="email" matInput class="fs-5 text-dark" />

            </mat-form-field>

            <mat-form-field

              class="example-full-width d-block w-100 text-dark"

              appearance="standard"

            >

              <mat-label class="text-dark">Message</mat-label>

              <textarea matInput placeholder="How can we help you!"></textarea>

            </mat-form-field>

            <button mat-raised-button color="accent" type="submit">

              Contact Us

            </button>

          </form>

        </div>

      </div>

      <div class="address col-sm-12 col-md-12 col-lg-4">

        <h1 class="fs-2">Contact Us</h1>

        <div class="underline text-success"></div>

        <div class="contact-address">

          <mat-list>

            <mat-list-item role="listitem" class="py-2 h-auto">

              <mat-icon class="d-inline-block"> place </mat-icon>

              <div class="address ms-3 text-muted col-10">

                SPI Network Limited, 25, Mamatha Complex, 5th Floor, Whites Rd, Royapettah, Chennai, Tamil Nadu 600014.

              </div>

            </mat-list-item>

            <mat-divider></mat-divider>

            <mat-list-item role="listitem" class="py-2 h-auto">

              <mat-icon class="d-inline-block"> email </mat-icon>

              <div class="address ms-3 text-muted col-10">ABC@cinemas.com</div>

            </mat-list-item>

            <mat-divider></mat-divider>

            <mat-list-item role="listitem" class="py-2 h-auto">

              <mat-icon class="d-inline-block col-1"> support\_agent </mat-icon>

              <div class="address ms-3 text-muted col-10"> 1800-894-4059</div>

            </mat-list-item>

          </mat-list>

        </div>

      </div>

    </div>

  </div>

</div>

**Footer:**

<footer

  \*ngIf="router.url !== '/select-seats'"

  class="row w-100 justify-content-around mx-0 footer"

  [ngClass]="fixed ? 'fixed-bottom' : ''"

>

  <div

    class="text-center text-white"

    style="height: 50px; line-height: 50px"

    [ngClass]="{

      'bg-dark': !bgColor,

      bgColor: bgColor,

      'text-white': !textColor,

      textColor: textColor

    }"

  >

    Designed & Developed by

    <a

      target="\_blank"

      class="text-decoration-none mx-2"

      ><strong>Abishek S</strong></a

    >

  </div>

</footer>

**Forgot Password:**

<main class="px-3 my-auto">

  <p

    class="lead mb-2 p-2 rounded"

    [ngClass]="(alertDanger$ | async) ? 'alert-danger' : 'alert-success'"

    \*ngIf="showAlert$ | async"

  >

    {{ alertMessage$ | async }}

  </p>

  <h1 class="fs-2 py-4">Change Password Here</h1>

  <div class="example-container">

    <form

      #passwordForm

      class="row w-100 g-0"

      [formGroup]="forgotPasswordForm"

      (ngSubmit)="onSubmit()"

    >

      <div class="col-12 mb-3">

        <mat-form-field appearance="outline" class="text-white d-block">

          <mat-label>Enter your username</mat-label>

          <input

            matInput

            type="text"

            placeholder="ABCbranch@cinemas.com"

            formControlName="username"

            class="fs-5"

          />

          <mat-hint \*ngIf="username.pending" class="text-warning"

            >Checking for username...</mat-hint

          >

          <mat-error \*ngIf="usernameErrors">{{ usernameErrors }}</mat-error>

        </mat-form-field>

      </div>

      <div class="col-12 mb-3">

        <mat-form-field appearance="outline" class="text-white d-block">

          <mat-label>Enter your password</mat-label>

          <input

            matInput

            [type]="hidePassword ? 'password' : 'text'"

            formControlName="password"

            class="fs-5"

          />

          <mat-error \*ngIf="passwordErrors">{{ passwordErrors }}</mat-error>

          <button

            mat-icon-button

            matSuffix

            (click)="hidePassword = !hidePassword"

            [attr.aria-label]="'Hide password'"

            [attr.aria-pressed]="hidePassword"

          >

            <mat-icon>{{

              hidePassword ? "visibility\_off" : "visibility"

            }}</mat-icon>

          </button>

        </mat-form-field>

      </div>

      <button

        mat-raised-button

        [color]="!forgotPasswordForm.valid ? 'accent' : 'primary'"

        class="col-12"

        type="submit"

      >

        Change Password

      </button>

    </form>

  </div>

</main>

**Header:**

<nav

  \*ngIf="router.url !== '/select-seats'"

  id="nav-bar"

  class="navbar navbar-expand-lg navbar-dark bg-show text-white px-lg-3"

>

  <div class="container-fluid">

    <a mat-button class="navbar-brand ms-sm-3 fs-4" routerLink="/home">{{

      title

    }}</a>

    <button

      class="navbar-toggler"

      mat-icon-button

      aria-label="Example icon-button with a menu"

      type="button"

      data-bs-toggle="collapse"

      data-bs-target="#navbarSupportedContent"

      aria-controls="navbarSupportedContent"

      aria-expanded="false"

      aria-label="Toggle navigation"

    >

      <mat-icon>more\_vert</mat-icon>

    </button>

    <div class="collapse navbar-collapse" id="navbarSupportedContent">

      <ul class="navbar-nav me-auto mb-2 mb-lg-0 text-sm-center">

        <li class="nav-item mx-lg-2 mx-md-auto">

          <a

            mat-button

            class="nav-link"

            aria-current="page"

            routerLinkActive="active"

            routerLink="/home"

            >Home</a

          >

        </li>

        <li class="nav-item mx-lg-2 mx-md-auto">

          <a

            mat-button

            class="nav-link"

            routerLinkActive="active"

            [routerLink]="['/movies']"

            >Movies</a

          >

        </li>

        <li class="nav-item mx-lg-2 mx-md-auto">

          <a

            mat-button

            class="nav-link"

            routerLinkActive="active"

            routerLink="/about"

            >About Us</a

          >

        </li>

        <li class="nav-item mx-lg-2 mx-md-auto">

          <a

            mat-button

            class="nav-link"

            routerLinkActive="active"

            routerLink="/contact"

            >Contact Us</a

          >

        </li>

        <li class="nav-item dropdown" \*ngIf="service.isAdmin()">

          <a

            class="nav-link dropdown-toggle"

            href="#"

            id="admin-panel"

            role="button"

            data-bs-toggle="dropdown"

            aria-expanded="false"

          >

            Admin Panel

          </a>

          <ul class="dropdown-menu" aria-labelledby="admin-panel">

            <li class="nav-item mx-lg-2 mx-md-auto">

              <a

                class="dropdown-item"

                href="#"

                routerLinkActive="active"

                routerLink="/admin/add-auditorium"

                >Add Auditorium</a

              >

            </li>

            <li class="nav-item mx-lg-2 mx-md-auto">

              <a

                class="dropdown-item"

                href="#"

                routerLinkActive="active"

                routerLink="/admin/add-movie"

                >Add Movie</a

              >

            </li>

            <li class="nav-item mx-lg-2 mx-md-auto">

              <a

                class="dropdown-item"

                href="#"

                routerLinkActive="active"

                routerLink="/admin/manage"

                >Manage</a

              >

            </li>

          </ul>

        </li>

      </ul>

      <div class="profile text-sm-center">

        <!-- <button mat-button [matMenuTriggerFor]="menu">

          <img

            class="rounded-circle mx-2"

            src="https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcSK9DmKOF9VCBqRzdHLzwyyOXjDm4kOYjD9IZQo2WviiLzzxDmzwYQZaVK6\_7o\_Qc7famc&usqp=CAU"

            alt=""

            width="45"

            height="45"

          />

          My Account

        </button>

        <mat-menu #menu="matMenu">

          <a routerLink="/user/login" mat-menu-item>Login</a>

          <a routerLink="/user/register" mat-menu-item>Register</a>

          <a routerLink="/user/forgot-password" mat-menu-item>

            Forgot Password

          </a>

          <a routerLink="/user/profile" mat-menu-item>My Profile</a>

          <a routerLink="/user/bookings" mat-menu-item>My Bookings</a>

          <a routerLink="/user/logout" mat-menu-item>Logout</a>

        </mat-menu> -->

        <ul class="navbar-nav col-auto" \*ngIf="service.isLoggedIn()">

          <li class="nav-item dropdown">

            <a

              class="nav-link dropdown-toggle fs-6 my-2"

              href="#"

              id="account-links"

              role="button"

              data-bs-toggle="dropdown"

              aria-expanded="false"

              >{{ service.getUser()?.email! }}

            </a>

            <ul

              class="dropdown-menu dropdown-menu-dark"

              aria-labelledby="account-links"

            >

              <li class="nav-item">

                <a class="dropdown-item py-1" routerLink="/my/profile"

                  >Profile</a

                >

              </li>

              <li class="nav-item">

                <a class="dropdown-item py-1" routerLink="/my/bookings"

                  >Bookings</a

                >

              </li>

              <li class="nav-item text-center">

                <a

                  class="btn btn-outline-warning btn-sm col-11 mt-2"

                  (click)="onLogout()"

                  >Logout</a

                >

              </li>

            </ul>

          </li>

        </ul>

        <div class="btn-group p-2" \*ngIf="!service.isLoggedIn()">

          <a

            routerLink="/user/login"

            routerLinkActive="active"

            class="btn btn-primary btn-sm rounded mx-1"

            >Login</a

          >

          <a

            routerLink="/user/register"

            routerLinkActive="active"

            class="btn btn-success btn-sm rounded mx-1"

            >Register</a

          >

        </div>

      </div>

    </div>

  </div>

</nav>

**Home Page:**

<div class="container-fluid my-2 pb-5">

  <h1

    class="text-center text-warning h-100vh mx-auto"

    \*ngIf="(carousel$ | async)?.length! < 1"

  >

    Movie List is empty

  </h1>

  <ng-container \*ngIf="(carousel$ | async)?.length! > 0">

    <div id="movies-carousel" class="carousel slide" data-bs-ride="carousel">

      <div class="carousel-indicators">

        <button

          [ngClass]="i == 0 ? 'active' : ''"

          [attr.aria-current]="i == 0 ? true : false"

          \*ngFor="let movie of carousel$ | async; index as i"

          type="button"

          data-bs-target="#movies-carousel"

          [attr.data-bs-slide-to]="i"

          [attr.aria-label]="'Slide ' + i"

        ></button>

      </div>

      <div class="carousel-inner">

        <div

          class="carousel-item"

          \*ngFor="let movie of carousel$ | async; index as i"

          [ngClass]="i == 0 ? 'active' : ''"

        >

          <img

            [src]="movie.bgImage"

            class="d-block w-100"

            height="550"

            [alt]="movie.name"

          />

          <div class="carousel-caption d-none d-md-block">

            <h5 class="fs-1 mb-3">{{ movie.name | uppercase }}</h5>

            <p class="lead">

              {{

                (movie.language | titlecase) +

                  " | " +

                  (movie.genres?.join(" - ") | titlecase) +

                  " | " +

                  movie.year

              }}

            </p>

          </div>

        </div>

      </div>

      <button

        class="carousel-control-prev"

        type="button"

        data-bs-target="#movies-carousel"

        data-bs-slide="prev"

      >

        <span class="carousel-control-prev-icon" aria-hidden="true"></span>

        <span class="visually-hidden">Previous</span>

      </button>

      <button

        class="carousel-control-next"

        type="button"

        data-bs-target="#movies-carousel"

        data-bs-slide="next"

      >

        <span class="carousel-control-next-icon" aria-hidden="true"></span>

        <span class="visually-hidden">Next</span>

      </button>

    </div>

    <section

      \*ngIf="(nowPlaying$ | async)?.length! > 0"

      class="now-showing my-5 bg-dark text-white p-lg-5"

    >

      <div class="row g-0 mb-5 justify-content-around">

        <h3 class="text-uppercase fs-2 col-11">Now Playing</h3>

        <a

          routerLink="../movies"

          [queryParams]="{ show: 'now-playing' }"

          class="d-block col-1 text-end"

          >view all</a

        >

      </div>

      <div class="now-showing-movies">

        <div class="card-group row g-0 justify-content-around">

          <div

            class="col-sm-11 col-md-5 col-lg-3 col-xxl-2 px-2 position-relative"

            \*ngFor="let movie of nowPlaying$ | async"

          >

            <div class="image-card postion-relative rounded-5 overflow-hidden">

              <img

                [src]="movie.image"

                class="card-img-top"

                height="400"

                width="284"

                [alt]="movie.name"

              />

              <div

                class="

                  image-release

                  postion-absolute

                  bottom-0

                  start-0

                  bg-white

                  text-dark

                  w-100

                  text-center

                  py-2

                "

              >

                {{ formatRelease(movie.release) }}

              </div>

            </div>

            <div class="card-body text-center">

              <h2 class="card-title fs-4 mb-0">

                <a

                  class="stretched-link"

                  routerLink="../movie/{{ movie.id }}"

                  >{{ movie.name | uppercase }}</a

                >

              </h2>

              <h3 class="card-text text-muted">

                {{ movie.language | titlecase }}

              </h3>

            </div>

          </div>

        </div>

      </div>

    </section>

    <section

      \*ngIf="(upComing$ | async)?.length! > 0"

      class="up-coming my-5 p-lg-5"

    >

      <div class="row g-0 mb-5 justify-content-around">

        <h3 class="text-uppercase fs-2 col-11">Up Coming</h3>

        <a

          routerLink="../movies"

          [queryParams]="{ show: 'up-coming' }"

          class="d-block col-1 text-end"

          >view all</a

        >

      </div>

      <div class="up-coming-movies">

        <div class="card-group row g-0 justify-content-around">

          <div

            class="col-sm-11 col-md-5 col-lg-3 col-xxl-2 px-2 position-relative"

            \*ngFor="let movie of upComing$ | async"

          >

            <div class="image-card postion-relative rounded-5 overflow-hidden">

              <img

                [src]="movie.image"

                class="card-img-top"

                height="400"

                width="284"

                [alt]="movie.name"

              />

              <div

                class="

                  image-release

                  postion-absolute

                  bottom-0

                  start-0

                  bg-dark

                  text-white

                  w-100

                  text-center

                  py-2

                "

              >

                {{ formatRelease(movie.release) }}

              </div>

            </div>

            <div class="card-body text-center">

              <h2 class="card-title fs-4 mb-0">

                <a

                  class="stretched-link"

                  routerLink="../movie/{{ movie.id }}"

                  >{{ movie.name | uppercase }}</a

                >

              </h2>

              <h3 class="card-text text-muted">

                {{ movie.language | titlecase }}

              </h3>

            </div>

          </div>

        </div>

      </div>

    </section>

  </ng-container>

</div>

**Layout:**

<app-header></app-header>

<router-outlet></router-outlet>

<app-footer></app-footer>

**Log In :**

<main class="px-3 my-auto">

  <p

    class="lead mb-2 p-2 rounded"

    [ngClass]="(alertDanger$ | async) ? 'alert-danger' : 'alert-success'"

    \*ngIf="showAlert$ | async"

  >

    {{ alertMessage$ | async }}

  </p>

  <h1 class="fs-2 py-4">Login Page</h1>

  <div class="example-container">

    <form

      action="#"

      class="row w-100 g-0"

      [formGroup]="loginForm"

      (ngSubmit)="onSubmit()"

    >

      <div class="col-12 mb-3">

        <mat-form-field appearance="outline" class="text-white d-block">

          <mat-label>Enter your username</mat-label>

          <input matInput type="text" formControlName="username" class="fs-5" />

          <mat-error \*ngIf="usernameErrors">{{ usernameErrors }}</mat-error>

        </mat-form-field>

      </div>

      <div class="col-12 mb-3">

        <mat-form-field appearance="outline" class="text-white d-block">

          <mat-label>Enter your password</mat-label>

          <input

            matInput

            [type]="hidePassword ? 'password' : 'text'"

            formControlName="password"

            class="fs-5"

          />

          <mat-error \*ngIf="passwordErrors">{{ passwordErrors }}</mat-error>

          <button

            mat-icon-button

            matSuffix

            (click)="hidePassword = !hidePassword"

            [attr.aria-label]="'Hide password'"

            [attr.aria-pressed]="hidePassword"

          >

            <mat-icon>{{

              hidePassword ? "visibility\_off" : "visibility"

            }}</mat-icon>

          </button>

        </mat-form-field>

      </div>

      <button

        mat-raised-button

        class="col-12"

        type="submit"

        [color]="!loginForm.valid ? 'accent' : 'primary'"

      >

        Login

      </button>

    </form>

  </div>

</main>

**LogIn LayOut:**

<div class="d-flex h-100 text-center text-white bg-dark cover-page mb-5">

  <div class="cover-container d-flex w-100 p-3 mx-auto flex-column">

    <header class="mb-5">

      <div class="clearfix">

        <h3 class="float-md-start mb-0 fs-4 text-md-center">{{ title }}</h3>

        <nav class="nav nav-masthead justify-content-center float-md-end">

          <a class="nav-link" aria-current="page" routerLink="/home">Home</a>

          <a class="nav-link" routerLinkActive="active" routerLink="/user/login"

            >Login</a

          >

          <a

            class="nav-link"

            routerLinkActive="active"

            routerLink="/user/register"

            >Register</a

          >

          <a

            class="nav-link"

            routerLinkActive="active"

            routerLink="/user/forgot-password"

            >Forgot Password</a

          >

        </nav>

      </div>

    </header>

    <router-outlet></router-outlet>

  </div>

</div>

<app-footer [fixed]="true"></app-footer>

<!-- [fixed]="true"

  bgColor="bg-white"

  textColor="text-dark" -->

**Manage:**

<div class="wrapper w-100 my-2">

  <div class="container-fluid row g-0 h-90vh">

    <div class="col-lg-3 px-2 border-3 border-end row g-0">

      <h2

        class="

          py-2

          rounded

          text-center text-dark

          shadow-sm

          border border-2 border-dark

          align-self-start

        "

      >

        Cinema Halls

      </h2>

      <div class="overflow-auto h-70vh">

        <h1 \*ngIf="!allAuditoriums" class="text-danger text-center">

          Cinema Hall list is empty

        </h1>

        <mat-list role="list" \*ngIf="allAuditoriums">

          <mat-list-item

            role="listitem"

            \*ngFor="let hall of allAuditoriums"

            class="position-relative options pe-cursor rounded"

            [ngClass]="{ highlight: hall.id == selectedCinemaHallId }"

            (click)="onCinemaHallSelect(hall.id!)"

          >

            <div class="w-100">

              {{ hall.name | uppercase }}

            </div>

            <span class="icon-holder w-auto">

              <mat-icon

                class="w-auto text-info me-1 pe-cursor edit-icon"

                aria-hidden="false"

                matTooltip="Edit Cinema Hall"

                (click)="onEditCinemaHall(hall.id!)"

                aria-label="edit icon"

                >edit

              </mat-icon>

              <mat-icon

                class="w-auto text-danger ms-1 pe-cursor delete-icon"

                aria-hidden="false"

                matTooltip="Delete Cinema Hall"

                (click)="onDeleteCinemaHall(hall.id!)"

                aria-label="delete icon"

                >delete

              </mat-icon>

            </span>

          </mat-list-item>

        </mat-list>

      </div>

      <a

        mat-raised-button

        class="align-self-end mt-auto w-100 d-block"

        color="warn"

        routerLink="../add-auditorium"

      >

        Add Cinema Hall

      </a>

    </div>

    <div class="col-lg-3 px-2 border-3 border-end row g-0">

      <h2

        class="

          py-2

          rounded

          text-center text-dark

          shadow-sm

          align-self-start

          border border-2 border-dark

        "

      >

        Shows

      </h2>

      <div class="overflow-auto h-70vh">

        <h1 \*ngIf="!selectedShows" class="text-danger text-center">

          Select a Cinema Hall

        </h1>

        <mat-list \*ngIf="selectedShows" role="list">

          <mat-list-item

            role="listitem"

            \*ngFor="let show of selectedShows"

            class="position-relative options pe-cursor rounded"

            [ngClass]="{ highlight: show.id == selectedShowId }"

            (click)="onShowSelect(show.id!)"

          >

            <div class="w-100 row g-0 justify-content-around">

              <div class="col-5">{{ show.name | titlecase }}</div>

              |

              <div class="col-5">

                {{ "Time: " + formatTime(show.startTime) }}

              </div>

            </div>

            <span class="icon-holder w-auto">

              <mat-icon

                class="w-auto text-info me-1 pe-cursor edit-icon"

                aria-hidden="false"

                matTooltip="Edit Show"

                aria-label="edit icon"

                (click)="onEditShow(show.id!)"

                >edit</mat-icon

              >

              <mat-icon

                class="w-auto text-danger ms-1 pe-cursor delete-icon"

                aria-hidden="false"

                matTooltip="Delete Show"

                aria-label="delete icon"

                (click)="onDeleteShow(show.id!)"

                >delete</mat-icon

              >

            </span>

          </mat-list-item>

        </mat-list>

      </div>

      <button

        \*ngIf="selectedShows"

        mat-raised-button

        class="align-self-end mt-auto w-100 d-block"

        (click)="onAddShow()"

        color="accent"

      >

        Add Show

      </button>

    </div>

    <div class="col-lg-6 px-2 row g-0">

      <h2

        class="

          py-2

          rounded

          text-center text-dark

          shadow-sm

          align-self-start

          border border-2 border-dark

        "

      >

        Movies

      </h2>

      <div class="overflow-auto h-70vh">

        <h1

          \*ngIf="selectedShowId && !selectedMovieShows"

          class="text-warning text-center"

        >

          Selected Show has no movies

        </h1>

        <h1 \*ngIf="!selectedShowId" class="text-danger text-center">

          Select a Show

        </h1>

        <mat-list \*ngIf="selectedShowId" role="list">

          <mat-list-item

            role="listitem"

            \*ngFor="let shows of selectedMovieShows"

            class="position-relative show-options pe-cursor rounded h-auto py-2"

          >

            <div class="w-100">

              <img

                class="example-option-img me-2 rounded d-inline-block"

                aria-hidden

                [src]="getMovieImage(shows.movieId!)"

                height="120"

                width="120"

              />

              {{

                (getShowMovieName(shows.movieId!) | titlecase) +

                  " | lang: " +

                  getShowMovieLanguage(shows.movieId!) +

                  " | start: " +

                  (shows.start | date: "longDate") +

                  " | end: " +

                  (shows.end | date: "longDate")

              }}

            </div>

            <span class="icon-holder w-auto">

              <mat-icon

                class="w-auto text-info me-1 pe-cursor edit-icon"

                aria-hidden="false"

                matTooltip="Edit Movie Show"

                aria-label="edit icon"

                (click)="onEditMovie(shows.id!)"

                >edit</mat-icon

              >

              <mat-icon

                class="w-auto text-danger ms-1 pe-cursor delete-icon"

                aria-hidden="false"

                matTooltip="Delete Movie Show"

                aria-label="delete icon"

                (click)="onDeleteMovie(shows.id!)"

                >delete</mat-icon

              >

            </span>

          </mat-list-item>

        </mat-list>

      </div>

      <div

        class="row g-0 align-self-end mt-auto col-12 justify-content-between"

      >

        <a

          mat-raised-button

          class="col-5 text-capitalize"

          routerLink="../add-movie"

          color="primary"

        >

          Add New Movie

        </a>

        <button

          \*ngIf="selectedShowId"

          mat-raised-button

          class="col-5 text-capitalize"

          (click)="onAddMovieToTheShow()"

          color="warn"

        >

          Add movie to the show

        </button>

      </div>

    </div>

  </div>

</div>

**Movies:**

<div class="movie-section">

  <div class="position-relative poster-wrapper p-3">

    <div

      class="movie-banner"

      style="

        background: linear-gradient(

            90deg,

            rgb(34, 34, 34) 24.97%,

            rgb(34, 34, 34) 38.3%,

            rgba(34, 34, 34, 0.04) 97.47%,

            rgb(34, 34, 34) 100%

          )

          no-repeat center center;

        background-size: cover;

      "

      style.background-image="linear-gradient(

        90deg,

        rgb(34, 34, 34) 24.97%,

        rgb(34, 34, 34) 38.3%,

        rgba(34, 34, 34, 0.04) 97.47%,

        rgb(34, 34, 34) 100%

      ), url({{ (selectedMovie$ | async)?.bgImage }})"

    >

      <div class="movie-poster row g-0">

        <div class="movie-image col-lg-3 col-md-6 col-sm-10 rounded-5">

          <img

            [src]="(selectedMovie$ | async)?.image"

            [alt]="(selectedMovie$ | async)?.name"

            width="100%"

            height="100%"

          />

          <div

            class="

              movie-release

              position-absolute

              bottom-0

              start-0

              py-2

              w-100

              bg-white

              text-center

            "

          >

            {{ formatRelease((selectedMovie$ | async)?.release) }}

          </div>

        </div>

        <div class="movie-details text-white mx-3 px-3 col-lg-5 col-sm-12">

          <div class="movie-title mb-lg-5 fs-lg-1">

            <h1>

              {{

                ((selectedMovie$ | async)?.name | uppercase) +

                  " : " +

                  ((selectedMovie$ | async)?.caption | titlecase)

              }}

            </h1>

          </div>

          <div class="movie-format my-3">

            <button class="btn btn-light btn-sm diabled mx-1">4D</button>

            <button class="btn btn-light btn-sm diabled mx-1">

              {{ (selectedMovie$ | async)?.language }}

            </button>

          </div>

          <div class="movie-duration my-3">

            <p style="font: unset; font-size: 20px">

              {{

                ((selectedMovie$ | async)?.duration | titlecase) +

                  " . " +

                  (selectedMovie$ | async)?.genres?.join(", ")

              }}

            </p>

          </div>

          <div class="links mt-4 align-self-end">

            <a

              mat-raised-button

              color="accent"

              class="me-2"

              (click)="openBottomSheet()"

              >Book Tickets</a

            >

          </div>

        </div>

      </div>

    </div>

  </div>

  <div class="about-movie text-dark p-4">

    <h2>About the Movie</h2>

    <p class="lead" style="font-family: sans-serif">

      {{ (selectedMovie$ | async)?.story }}

    </p>

  </div>

  <!-- <nav class="px-4 py-3 w-100 shadow-sm bg-white text-dark">

    <h1>{{(selectedMovie$ | async)?.name + ' : '+ (selectedMovie$ | async)?.caption}}</h1>

    <p class="lead">{{(selectedMovie$ | async)?.genres.join(', ')}}</p>

  </nav> -->

  <div class="movie-cast ms-5 my-4" \*ngIf="(cast$ | async)?.length! > 0">

    <h1 class="fs-lg-2">Cast</h1>

    <div class="row g-0">

      <div

        class="cast text-center col-sm-12 col-md-6 col-lg-3"

        \*ngFor="let cast of cast$ | async"

      >

        <div class="image rounded-circle mx-auto mb-3">

          <!-- class="style\_\_Image-eykeme-1 dkwyqp" -->

          <!-- style="border-radius: 60px; opacity: 1" -->

          <img

            [alt]="cast.name"

            width="120px"

            height="120px"

            [src]="cast.image"

          />

        </div>

        <div class="cast-name">

          <h5 class="fs-5">{{ cast.name }}</h5>

        </div>

      </div>

    </div>

  </div>

  <div class="movie-crew ms-5 my-4 pb-5" \*ngIf="(crew$ | async)?.length! > 0">

    <h1 class="fs-lg-2">Crew</h1>

    <div class="row g-0">

      <div

        class="crew text-center col-sm-12 col-md-6 col-lg-3"

        \*ngFor="let crew of crew$ | async"

      >

        <div class="image rounded-circle mx-auto mb-3">

          <img

            [alt]="crew.name"

            width="120px"

            height="120px"

            [src]="crew.image"

          />

        </div>

        <div class="cast-name">

          <h5 class="fs-5">{{ crew.name }}</h5>

        </div>

      </div>

    </div>

  </div>

</div>

**Movie Forms:**

<div class="form-container">

  <div class="mx-auto text-center bg-color">

    <div class="container py-5">

      <h1 class="fs-2 text-dark py-5 text-uppercase">Add New Movie</h1>

    </div>

  </div>

  <div class="form-holder border border-4 border-warning rounded mx-5">

    <form [formGroup]="movieForm" (ngSubmit)="onSubmit()">

      <mat-horizontal-stepper [linear]="true" #stepper>

        <mat-step

          [stepControl]="validMovieDetails"

          errorMessage="Movie details required"

        >

          <ng-template matStepLabel>Movie Details</ng-template>

          <div class="row g-0 my-3 justify-content-around">

            <div class="col-sm-12 col-lg-5 mx-lg-2">

              <mat-form-field

                class="d-block w-100 text-dark"

                appearance="outline"

              >

                <mat-label>Name</mat-label>

                <input

                  matInput

                  placeholder="Movie Name"

                  formControlName="name"

                />

                <mat-error \*ngIf="nameErrors">{{ nameErrors }}</mat-error>

              </mat-form-field>

            </div>

            <div class="col-sm-12 col-lg-5 mx-lg-2">

              <mat-form-field

                class="d-block w-100 text-dark"

                appearance="outline"

              >

                <mat-label>Release Date</mat-label>

                <input

                  matInput

                  [min]="todayDate"

                  [matDatepicker]="picker"

                  placeholder="Release Date"

                  formControlName="release"

                />

                <mat-datepicker #picker></mat-datepicker>

                <mat-datepicker-toggle

                  matSuffix

                  [for]="picker"

                ></mat-datepicker-toggle>

                <mat-error \*ngIf="releaseErrors">{{ releaseErrors }}</mat-error>

              </mat-form-field>

            </div>

            <div class="col-sm-12 col-lg-5 mx-lg-2">

              <mat-form-field

                class="d-block w-100 text-dark"

                appearance="outline"

              >

                <mat-label>Image URL</mat-label>

                <input

                  matInput

                  placeholder="Image Link"

                  formControlName="image"

                />

                <mat-error \*ngIf="imageErrors">{{ imageErrors }}</mat-error>

              </mat-form-field>

            </div>

            <div class="col-sm-12 col-lg-5 mx-lg-2">

              <mat-form-field

                class="d-block w-100 text-dark"

                appearance="outline"

              >

                <mat-label>Background Image URL</mat-label>

                <input

                  matInput

                  placeholder="Background Image Link"

                  formControlName="bgImage"

                />

                <mat-error \*ngIf="bgImageErrors">{{ bgImageErrors }}</mat-error>

              </mat-form-field>

            </div>

            <div class="col-sm-12 col-lg-5 mx-lg-2">

              <mat-form-field

                class="d-block w-100 text-dark"

                appearance="outline"

              >

                <mat-label>Duration</mat-label>

                <input

                  matInput

                  placeholder="2h 25m"

                  formControlName="duration"

                />

                <mat-error \*ngIf="durationErrors">{{

                  durationErrors

                }}</mat-error>

              </mat-form-field>

            </div>

            <div class="col-sm-12 col-lg-5 mx-lg-2">

              <mat-form-field

                class="d-block w-100 text-dark"

                appearance="outline"

              >

                <mat-label>Movie Caption</mat-label>

                <input matInput formControlName="caption" />

              </mat-form-field>

            </div>

            <div class="col-sm-12 col-lg-11">

              <mat-form-field

                class="d-block w-100 text-dark"

                appearance="outline"

              >

                <mat-label>Story</mat-label>

                <textarea

                  matInput

                  formControlName="story"

                  placeholder="Narrate the story here"

                ></textarea>

                <mat-error \*ngIf="storyErrors">{{ storyErrors }}</mat-error>

              </mat-form-field>

            </div>

          </div>

          <div>

            <button

              mat-button

              matStepperNext

              type="button"

              [disabled]="!validMovieDetails.valid"

            >

              Next

            </button>

          </div>

        </mat-step>

        <mat-step [stepControl]="movieForm.get('languages')!">

          <ng-template matStepLabel>Add Language</ng-template>

          <div class="col-12 my-4 px-sm-1 px xl-4">

            <mat-form-field

              class="example-chip-list"

              class="d-block w-100 text-dark"

            >

              <mat-label>Add Language</mat-label>

              <mat-chip-list #languageList aria-label="language selection">

                <mat-chip

                  \*ngFor="let language of languages"

                  [selectable]="true"

                  [removable]="true"

                  (removed)="removeLanguage(language)"

                >

                  {{ language }}

                  <mat-icon matChipRemove \*ngIf="true">cancel</mat-icon>

                </mat-chip>

                <input

                  placeholder="New Language..."

                  #languageInput

                  formControlName="languages"

                  [matAutocomplete]="auto"

                  [matChipInputFor]="languageList"

                  [matChipInputSeparatorKeyCodes]="separatorKeysCodes"

                  (matChipInputTokenEnd)="addLanguage($event)"

                />

                <mat-error

                  \*ngIf="movieForm.get('languages')?.hasError('required')"

                  >Language cannot be empty</mat-error

                >

              </mat-chip-list>

              <mat-autocomplete

                #auto="matAutocomplete"

                (optionSelected)="selectedLanguage($event)"

              >

                <mat-option

                  \*ngFor="let language of filteredLanguages | async"

                  [value]="language"

                >

                  {{ language }}

                </mat-option>

              </mat-autocomplete>

            </mat-form-field>

          </div>

          <!-- <div class="row g-0 justify-content-around">

            <div

              class="col-sm-12 col-lg-5 form-field"

              formArrayName="genres"

              \*ngFor="let genre of genres.controls; index as i"

            >

              <mat-form-field

                class="d-block w-100 text-dark"

                appearance="outline"

              >

                <mat-label>Genre</mat-label>

                <input matInput placeholder="Romantic" [formControlName]="i" />

                <mat-error \*ngIf="genre.errors?.required && genres.touched"

                  >Genre Cannot be empty</mat-error

                >

              </mat-form-field>

              <mat-icon

                class="fs-2 w-auto text-danger delete-icon"

                (click)="removeGenre(i)"

                aria-hidden="false"

                matTooltip="Remove the Genre"

                aria-label="delete icon"

                >delete</mat-icon

              >

            </div>

          </div>

          <div class="text-center text-primary mt-4">

            <mat-icon

              class="pe-cursor fs-2"

              aria-hidden="false"

              matTooltip="Add one more Genre"

              aria-label="add\_circle icon"

              (click)="addGenre()"

              >add\_circle</mat-icon

            >

          </div> -->

          <div>

            <button mat-button matStepperPrevious type="button">Back</button>

            <button mat-button matStepperNext type="button">Next</button>

          </div>

        </mat-step>

        <mat-step [stepControl]="movieForm.get('genres')!">

          <ng-template matStepLabel>Add Language</ng-template>

          <div class="row g-0 justify-content-around">

            <div

              class="col-sm-12 col-lg-5 form-field"

              formArrayName="genres"

              \*ngFor="let genres of genres.controls; index as i"

            >

              <mat-form-field

                class="d-block w-100 text-dark"

                appearance="outline"

              >

                <mat-label>Genre</mat-label>

                <input

                  matInput

                  placeholder="Comedy"

                  [formControlName]="i"

                  [attr.list]="'genres-' + i"

                />

                <datalist [id]="'genres-' + i">

                  <option [value]="genre" \*ngFor="let genre of allGenres">

                    {{ genre }}

                  </option>

                </datalist>

                <mat-error \*ngIf="genres.touched">

                  <span class="mx-1" \*ngIf="genres.errors?.required"

                    >Genre cannot be empty</span

                  >

                  <span class="mx-1" \*ngIf="genres.errors?.validGenre"

                    >Invalid movie genre</span

                  >

                  <span class="mx-1" \*ngIf="genres.errors?.uniqueName"

                    >Genre already added</span

                  >

                </mat-error>

              </mat-form-field>

              <mat-icon

                class="fs-2 w-auto text-danger delete-icon"

                (click)="removeGenre(i)"

                aria-hidden="false"

                matTooltip="Remove the Genre"

                aria-label="delete icon"

                >delete</mat-icon

              >

            </div>

          </div>

          <div class="text-center text-primary mt-4">

            <mat-icon

              class="pe-cursor fs-2"

              aria-hidden="false"

              matTooltip="Add one more Genre"

              aria-label="add\_circle icon"

              (click)="addGenre()"

              >add\_circle</mat-icon

            >

          </div>

          <div>

            <button mat-button matStepperPrevious type="button">Back</button>

            <button mat-button matStepperNext type="button">Next</button>

          </div>

        </mat-step>

        <mat-step [stepControl]="movieForm.get('casts')!">

          <ng-template matStepLabel>Add Cast Details</ng-template>

          <div

            class="w-100"

            formArrayName="casts"

            \*ngFor="let cast of casts.controls; index as i"

          >

            <div

              class="

                row

                g-0

                justify-content-around

                align-content-center

                form-field

              "

              [formGroupName]="i"

            >

              <div class="col-lg-3 col-sm-6">

                <mat-form-field

                  class="d-block w-100 text-dark"

                  appearance="outline"

                >

                  <mat-label>Actor Name</mat-label>

                  <input

                    matInput

                    placeholder="Actor Name"

                    formControlName="name"

                  />

                  <mat-error

                    \*ngIf="cast.get('name')?.errors?.required && cast.touched"

                  >

                    Name cannot be empty

                  </mat-error>

                </mat-form-field>

              </div>

              <div class="col-lg-3 col-sm-6">

                <mat-form-field

                  class="d-block w-100 text-dark"

                  appearance="outline"

                >

                  <mat-label>Actor Role</mat-label>

                  <input matInput placeholder="Hero" formControlName="role" />

                  <mat-error

                    \*ngIf="cast.get('role')?.errors?.required && cast.touched"

                  >

                    Actor role cannot be empty

                  </mat-error>

                </mat-form-field>

              </div>

              <div class="col-lg-3 col-sm-6">

                <mat-form-field

                  class="d-block w-100 text-dark"

                  appearance="outline"

                >

                  <mat-label>Actor Image</mat-label>

                  <input

                    matInput

                    placeholder="Actor image"

                    formControlName="image"

                  />

                  <mat-error

                    \*ngIf="cast.get('image')?.errors?.required && cast.touched"

                  >

                    Actor image cannot be empty

                  </mat-error>

                </mat-form-field>

              </div>

              <mat-icon

                class="fs-2 w-auto text-danger delete-icon"

                (click)="removeCast(i)"

                aria-hidden="false"

                matTooltip="Remove the Cast"

                aria-label="delete icon"

                >delete</mat-icon

              >

            </div>

          </div>

          <div class="text-center text-primary mt-4">

            <mat-icon

              class="pe-cursor fs-2"

              aria-hidden="false"

              matTooltip="Add one more Cast"

              aria-label="add\_circle icon"

              (click)="addCast()"

              >add\_circle</mat-icon

            >

          </div>

          <div>

            <button mat-button matStepperPrevious type="button">Back</button>

            <button mat-button matStepperNext type="button">Next</button>

          </div>

        </mat-step>

        <mat-step [stepControl]="movieForm.get('crews')!">

          <ng-template matStepLabel>Add Crew Details</ng-template>

          <div

            class="w-100"

            formArrayName="crews"

            \*ngFor="let crew of crews.controls; index as i"

          >

            <div

              class="

                row

                g-0

                justify-content-around

                align-content-center

                form-field

              "

              [formGroupName]="i"

            >

              <div class="col-lg-3 col-sm-6">

                <mat-form-field

                  class="d-block w-100 text-dark"

                  appearance="outline"

                >

                  <mat-label>Crew Name</mat-label>

                  <input

                    matInput

                    placeholder="Crew Name"

                    formControlName="name"

                  />

                  <mat-error

                    \*ngIf="crew.get('name')?.errors?.required && crew.touched"

                  >

                    Name cannot be empty

                  </mat-error>

                </mat-form-field>

              </div>

              <div class="col-lg-3 col-sm-6">

                <mat-form-field

                  class="d-block w-100 text-dark"

                  appearance="outline"

                >

                  <mat-label>Crew Role</mat-label>

                  <input

                    matInput

                    placeholder="Director"

                    formControlName="role"

                  />

                  <mat-error

                    \*ngIf="crew.get('role')?.errors?.required && crew.touched"

                  >

                    Crew role cannot be empty

                  </mat-error>

                </mat-form-field>

              </div>

              <div class="col-lg-3 col-sm-6">

                <mat-form-field

                  class="d-block w-100 text-dark"

                  appearance="outline"

                >

                  <mat-label>Crew Image</mat-label>

                  <input

                    matInput

                    placeholder="Crew image"

                    formControlName="image"

                  />

                  <mat-error

                    \*ngIf="crew.get('image')?.errors?.required && crew.touched"

                  >

                    Crew image cannot be empty

                  </mat-error>

                </mat-form-field>

              </div>

              <mat-icon

                class="fs-2 w-auto text-danger delete-icon"

                (click)="removeCrew(i)"

                aria-hidden="false"

                matTooltip="Remove the Cast"

                aria-label="delete icon"

                >delete</mat-icon

              >

            </div>

          </div>

          <div class="text-center text-primary mt-4">

            <mat-icon

              class="pe-cursor fs-2"

              aria-hidden="false"

              matTooltip="Add one more Cast"

              aria-label="add\_circle icon"

              (click)="addCrew()"

              >add\_circle</mat-icon

            >

          </div>

          <div>

            <button mat-button matStepperPrevious type="button">Back</button>

            <button mat-button matStepperNext type="button">Next</button>

          </div>

        </mat-step>

        <mat-step>

          <ng-template matStepLabel>Review</ng-template>

          <pre>

              {{ movieForm.value | json }}

            </pre

          >

          <div>

            <button mat-button matStepperPrevious type="button">Back</button>

            <button

              mat-button

              class="text-success"

              [disabled]="!movieForm.valid"

            >

              Submit

            </button>

          </div>

        </mat-step>

      </mat-horizontal-stepper>

    </form>

  </div>

</div>

**Movies:**

<div class="px-lg-5 row g-0 my-5 justify-content-around position-relative">

  <div class="col-3">

    <div class="sorting text-center mb-3 align-self-center">

      <h2 class="fs-2 text-center text-dark text-uppercase">Show</h2>

      <br />

      <mat-form-field appearance="outline" class="d-block w-100">

        <mat-label>Show</mat-label>

        <mat-select name="showText" [(ngModel)]="showText">

          <mat-option

            \*ngFor="let type of types"

            [value]="type"

            (onSelectionChange)="onTypeChange(type)"

            >{{ type }}</mat-option

          >

        </mat-select>

      </mat-form-field>

    </div>

    <br />

    <div class="filter">

      <h2 class="fs-2 text-center text-dark text-uppercase">Filters</h2>

      <br />

      <mat-accordion

        class="example-headers-align"

        multi

        togglePosition="before"

      >

        <mat-expansion-panel class="rounded my-1">

          <mat-expansion-panel-header>

            <mat-panel-title

              [ngClass]="{

                'text-danger': languageFilter != null && languageFilter != ''

              }"

            >

              Language

            </mat-panel-title>

            <mat-panel-description

              (click)="clearLanguageFilter()"

              class="clear-filter"

              [ngClass]="{

                'text-danger': languageFilter != null && languageFilter != ''

              }"

            >

              Clear

            </mat-panel-description>

          </mat-expansion-panel-header>

          <div class="row g-0 justify-content-around">

            <div

              class="my-2 col-4 text-start"

              \*ngFor="let language of allLanguages"

            >

              <input

                type="radio"

                autocomplete="off"

                [checked]="language == languageFilter"

                class="btn-check"

                [id]="language"

                name="selectedLanguage"

                (change)="handleLanguageChange(language)"

              />

              <label

                class="btn btn-sm"

                [for]="language"

                [ngClass]="{

                  'btn-warning': language == languageFilter,

                  'btn-info': language != languageFilter

                }"

                >{{ language }}</label

              >

            </div>

          </div>

        </mat-expansion-panel>

        <mat-expansion-panel class="rounded my-1">

          <mat-expansion-panel-header>

            <mat-panel-title

              [ngClass]="{

                'text-danger': genreFilter != null && genreFilter != ''

              }"

            >

              Genre

            </mat-panel-title>

            <mat-panel-description

              class="clear-filter"

              (click)="clearGenreFilter()"

              [ngClass]="{

                'text-danger': genreFilter != null && genreFilter != ''

              }"

              >Clear</mat-panel-description

            >

          </mat-expansion-panel-header>

          <div class="row g-0 justify-content-around">

            <div class="my-2 col-4 text-start" \*ngFor="let genre of allGenres">

              <input

                type="radio"

                autocomplete="off"

                [checked]="genre == genreFilter"

                class="btn-check"

                [id]="genre"

                name="selectedGenre"

                (change)="handleGenreChange(genre)"

              />

              <label

                class="btn btn-sm"

                [for]="genre"

                [ngClass]="{

                  'btn-warning': genre == genreFilter,

                  'btn-info': genre != genreFilter

                }"

                >{{ genre }}</label

              >

            </div>

          </div>

        </mat-expansion-panel>

      </mat-accordion>

    </div>

  </div>

  <div class="col-8 movies">

    <div class="now-showing">

      <mat-toolbar

        [color]="showText == 'Now Playing' ? 'primary' : 'accent'"

        class="rounded"

      >

        <div class="row g-0 justify-content-around w-100 h-auto py-3">

          <div class="col-sm-12 col-lg-3 text-center">{{ showText }}</div>

          <div class="col-sm-12 col-lg-9">

            <input

              class="form-control me-2 w-100"

              type="search"

              placeholder="Search for movie, genre or language"

              aria-label="Search"

              name="search"

              [(ngModel)]="search"

            />

          </div>

        </div>

      </mat-toolbar>

      <h1 class="text-center text-warning my-4" \*ngIf="!(moviesList$ | async)">

        No movies found

      </h1>

      <div class="now-showing-movies my-4" \*ngIf="moviesList$ | async">

        <div class="card-group justify-content-around">

          <ng-container

            \*ngIf="

              moviesList$

                | async

                | search: search:genreFilter:languageFilter as result

            "

          >

            <p

              class="lead my-2 p-2 rounded alert-danger"

              \*ngIf="result.length < 1 || !result"

            >

              No result found with

              <span class="text-danger"

                >{{ search }}{{ " " + languageFilter

                }}{{ " " + genreFilter }}</span

              >

            </p>

            <div

              class="col-4 px-2 position-relative"

              \*ngFor="let movie of result"

            >

              <div

                class="image-card position-relative rounded-5 overflow-hidden"

              >

                <img

                  [src]="movie.image"

                  class="card-img-top"

                  height="400"

                  width="280"

                  [alt]="movie.name"

                />

                <!-- <svg

                  class="bd-placeholder-img card-img-top"

                  width="100%"

                  height="350"

                  xmlns="http://www.w3.org/2000/svg"

                  role="img"

                  aria-label="Placeholder: Thumbnail"

                  preserveAspectRatio="xMidYMid slice"

                  focusable="false"

                >

                  <title>Placeholder</title>

                  <rect width="100%" height="100%" fill="#55595c"></rect>

                </svg> -->

                <div

                  class="

                    image-release

                    position-absolute

                    bottom-0

                    start-0

                    bg-dark

                    text-white

                    w-100

                    text-center

                    py-2

                  "

                >

                  {{ formatRelease(movie.release) }}

                </div>

              </div>

              <div class="card-body text-center">

                <h2 class="card-title fs-4 mb-0">

                  <a

                    class="stretched-link"

                    routerLink="../movie/{{ movie.id }}"

                    >{{ movie.name | uppercase }}</a

                  >

                </h2>

                <h3 class="card-text text-muted">

                  {{ movie.language | titlecase }}

                </h3>

              </div>

            </div>

          </ng-container>

        </div>

      </div>

    </div>

  </div>

</div>

**My Bookings:**

<div class="col-10 mx-auto my-4 h-80vh">

  <mat-toolbar color="primary" class="rounded text-center">

    <h1

      class="text-center mx-auto"

      [ngClass]="present ? '' : 'text-danger h-80vh'"

    >

      {{ heading }}

    </h1>

  </mat-toolbar>

  <mat-card \*ngIf="present">

    <div class="row g-0 col-12">

      <div class="col-2 p-2">

        <div

          class="my-2 col-12 text-start"

          \*ngFor="let booking of allBookings$ | async; index as i"

        >

          <input

            type="radio"

            autocomplete="off"

            [checked]="booking.id == selectedBookingId"

            class="btn-check"

            [id]="'booking-' + i"

            name="booking"

            (change)="onBookingChange(booking.id!)"

          />

          <label

            class="btn btn-sm w-100 clearfix"

            [for]="'booking-' + i"

            [ngClass]="{

              'btn-dark text-white': booking.id == selectedBookingId,

              'btn-info': booking.id != selectedBookingId

            }"

          >

            <span class="d-inline-block float-start">{{

              "Booking " + (i + 1)

            }}</span>

            <span class="d-inline-block float-end">{{ booking.bookedOn }}</span>

          </label>

        </div>

      </div>

      <div class="col-10 px-2">

        <div class="row g-0 m-3 p-2 shadow-sm border">

          <div

            class="

              col-4

              mx-auto

              text-center

              px-1

              position-relative

              overflow-hidden

            "

          >

            <img

              [src]="movieImage$ | async"

              [alt]="movieName$ | async"

              height="400"

              width="300"

            />

            <div

              class="

                movie-name

                position-absolute

                w-100

                py-2

                fs-5

                bg-dark

                text-white

                start-0

                bottom-0

              "

            >

              {{ movieName$ | async | uppercase }}

            </div>

          </div>

          <div class="col-8 px-2 details h-100 my-auto">

            <table class="table ms-3">

              <thead>

                <tr>

                  <th

                    scope="col"

                    colspan="2"

                    class="text-center fs-4 text-capitalize"

                  >

                    {{ auditoriumName$ | async }}

                  </th>

                </tr>

              </thead>

              <tbody>

                <tr>

                  <th scope="row">Movie Language</th>

                  <td>

                    <h1 class="m-0 d-inline-block">

                      {{ movieLanguage$ | async }}

                    </h1>

                  </td>

                </tr>

                <tr>

                  <th scope="row">Total seats</th>

                  <td>

                    <h1 class="m-0 d-inline-block">

                      {{ noOfTickets$ | async }}

                    </h1>

                  </td>

                </tr>

                <tr>

                  <th scope="row">Seat No.</th>

                  <td>

                    <h1 class="m-0 d-inline-block">

                      {{ (selectedSeats$ | async)?.join(", ") }}

                    </h1>

                  </td>

                </tr>

                <tr>

                  <th scope="row">Price</th>

                  <td>

                    <h1 class="m-0 d-inline-block">

                      {{ amount$ | async | currency: "INR" }}

                    </h1>

                  </td>

                </tr>

                <tr>

                  <th scope="row">Date</th>

                  <td>

                    <h1 class="m-0 d-inline-block">

                      {{ dateOfBooking$ | async | date: "mediumDate" }}

                    </h1>

                  </td>

                </tr>

                <tr>

                  <th scope="row">Time</th>

                  <td>

                    <h1 class="m-0 d-inline-block">

                      {{ formatTime((showTiming$ | async)!) }}

                    </h1>

                  </td>

                </tr>

                <tr>

                  <th scope="row">Status</th>

                  <td>

                    <span class="text-muted text-success">Confirmed</span>

                  </td>

                </tr>

              </tbody>

            </table>

          </div>

        </div>

      </div>

    </div>

  </mat-card>

</div>

**Profile:**

<div class="h-80vh">

  <div class="col-10 mx-auto my-4">

    <mat-toolbar color="primary" class="rounded text-center"

      >Your profile</mat-toolbar

    >

  </div>

  <mat-card class="col-10 mx-auto">

    <table class="table">

      <tbody>

        <tr>

          <th scope="row">Name</th>

          <td>{{ (user | async)?.name }}</td>

        </tr>

        <tr>

          <th scope="row">Email</th>

          <td>{{ (user | async)?.email }}</td>

        </tr>

        <tr>

          <th scope="row">Mobile</th>

          <td>{{ (user | async)?.mobile }}</td>

        </tr>

        <tr>

          <th scope="row">Gender</th>

          <td>{{ (user | async)?.gender }}</td>

        </tr>

      </tbody>

    </table>

  </mat-card>

</div>

**Register:**

<main class="px-3 my-auto">

  <p

    class="lead mb-2 p-2 rounded"

    [ngClass]="(alertDanger$ | async) ? 'alert-danger' : 'alert-success'"

    \*ngIf="showAlert$ | async"

  >

    {{ alertMessage$ | async }}

  </p>

  <h1 class="fs-2 py-4">Register Here</h1>

  <div class="example-container">

    <form

      class="row w-100 g-0"

      [formGroup]="registerForm"

      (ngSubmit)="onSubmit()"

    >

      <!-- Email Field -->

      <div class="col-12 mb-2 px-lg-1">

        <mat-form-field appearance="outline" class="d-block text-white">

          <mat-label>Enter your Email</mat-label>

          <input matInput type="email" formControlName="email" class="fs-5" />

          <mat-hint \*ngIf="email.pending" class="text-warning"

            >Checking For uniqueness...</mat-hint

          >

          <mat-error \*ngIf="emailErrors">{{ emailErrors }}</mat-error>

        </mat-form-field>

      </div>

      <div class="col-sm-12 col-md-12 col-lg-6 mb-2 px-lg-1">

        <mat-form-field appearance="outline" class="d-block text-white">

          <mat-label>Enter your name</mat-label>

          <input matInput type="text" formControlName="name" class="fs-5" />

          <mat-error \*ngIf="nameErrors">{{ nameErrors }}</mat-error>

        </mat-form-field>

      </div>

      <div class="col-sm-12 col-md-12 col-lg-6 mb-2 px-lg-1">

        <mat-form-field appearance="outline" class="d-block text-white">

          <mat-label>Enter your Mobile</mat-label>

          <span matPrefix>+91 &nbsp;</span>

          <input

            matInput

            type="text"

            formControlName="mobile"

            class="fs-5"

          /><mat-hint \*ngIf="mobile.pending" class="text-warning"

            >Checking For uniqueness...</mat-hint

          >

          <mat-error \*ngIf="mobileErrors">{{ mobileErrors }}</mat-error>

        </mat-form-field>

      </div>

      <div class="col-sm-12 col-md-12 col-lg-6 mb-2 px-lg-1">

        <mat-form-field appearance="outline" class="d-block text-white">

          <mat-label>Enter your password</mat-label>

          <input

            matInput

            [type]="hidePassword ? 'password' : 'text'"

            formControlName="password"

            class="fs-5"

          />

          <mat-error \*ngIf="passwordErrors">{{ passwordErrors }}</mat-error>

          <button

            mat-icon-button

            matSuffix

            (click)="hidePassword = !hidePassword"

            [attr.aria-label]="'Hide password'"

            [attr.aria-pressed]="hidePassword"

          >

            <mat-icon>{{

              hidePassword ? "visibility\_off" : "visibility"

            }}</mat-icon>

          </button>

        </mat-form-field>

      </div>

      <div class="col-sm-12 col-md-12 col-lg-6 mb-2 px-lg-1">

        <mat-form-field appearance="outline" class="d-block text-white">

          <mat-label>Select Gender</mat-label>

          <mat-select formControlName="gender" class="text-white fs-5">

            <mat-option \*ngFor="let sex of genders" [value]="sex.name">

              {{ sex.name }}

            </mat-option>

          </mat-select>

          <mat-error \*ngIf="passwordErrors">{{ passwordErrors }}</mat-error>

        </mat-form-field>

      </div>

      <div class="col-lg-12 col-md-12 mb-2">

        <mat-checkbox class="example-margin" formControlName="terms"

          >Agree to terms & conditions</mat-checkbox

        >

        <mat-error \*ngIf="termsErrors">{{ termsErrors }}</mat-error>

      </div>

      <button

        mat-raised-button

        [color]="!registerForm.valid ? 'accent' : 'primary'"

        class="col-12"

        type="submit"

      >

        Register

      </button>

    </form>

  </div>

</main>

**Add Movie To Show Form:**

<div class="wrapper">

  <h1 class="text-center mb-3 p-2 rounded border border-2 shadow-sm">

    Add Movie To Show

  </h1>

  <form class="example-form p-4" [formGroup]="movieShowForm">

    <mat-form-field class="d-block w-100 text-dark" appearance="outline">

      <mat-label>Select Movie</mat-label>

      <mat-select

        aria-label="State"

        [formControl]="movieId"

        (click)="movieId.reset()"

        (selectionChange)="onMovieChange($event)"

      >

        <mat-option

          \*ngFor="let movie of filteredMovies | async"

          [value]="movie.id"

          class="h-auto py-1"

        >

          <!-- (onSelectionChange)="onMovieChange($event, movie.id)" -->

          <img

            class="example-option-img me-2 rounded"

            aria-hidden

            [src]="movie.image"

            height="120"

            width="120"

          />

          <span class="me-1">{{ movie.name | uppercase }}</span> |

          <span class="me-1">{{ movie.language | titlecase }}</span> |

          <small class="me-1"

            >Release: {{ movie.release | date: "fullDate" }}</small

          >

          |

          <small class="me-1"

            >Added: {{ movie.addedOn | date: "fullDate" }}</small

          >

        </mat-option>

      </mat-select>

      <mat-error \*ngIf="movieIdErrors">{{ movieIdErrors }}</mat-error>

    </mat-form-field>

    <mat-form-field appearance="outline" class="d-block w-100 text-dark">

      <mat-label>Enter a date range</mat-label>

      <mat-date-range-input

        [formGroup]="range"

        [rangePicker]="picker"

        [min]="startDate"

        [max]="endDate"

      >

        <input matStartDate formControlName="start" placeholder="Start date" />

        <input matEndDate formControlName="end" placeholder="End date" />

      </mat-date-range-input>

      <mat-datepicker-toggle matSuffix [for]="picker"></mat-datepicker-toggle>

      <mat-date-range-picker #picker></mat-date-range-picker>

      <mat-error class="d-inline-block mx-1" \*ngIf="startDateErrors">{{

        startDateErrors

      }}</mat-error>

      <mat-error class="d-inline-block mx-1" \*ngIf="endDateErrors">{{

        endDateErrors

      }}</mat-error>

      <!-- <mat-error \*ngIf="range.controls.start.hasError('matStartDateInvalid')"

        >Invalid start date</mat-error

      >

      <mat-error \*ngIf="range.controls.end.hasError('matEndDateInvalid')"

        >Invalid end date</mat-error

      > -->

    </mat-form-field>

    <fieldset>

      <legend class="lead">Price details</legend>

      <div class="row g-0 justify-content-around">

        <mat-form-field

          appearance="outline"

          class="d-block col-4 px-1 text-dark"

        >

          <mat-label>Gold Section</mat-label>

          <input type="number" matInput formControlName="gold" />

          <mat-error \*ngIf="goldPriceErrors">{{ goldPriceErrors }}</mat-error>

        </mat-form-field>

        <mat-form-field

          appearance="outline"

          class="d-block col-4 px-1 text-dark"

        >

          <mat-label>Silver Section</mat-label>

          <input type="number" matInput formControlName="silver" />

          <mat-error \*ngIf="silverPriceErrors">{{

            silverPriceErrors

          }}</mat-error>

        </mat-form-field>

        <mat-form-field

          appearance="outline"

          class="d-block col-4 px-1 text-dark"

        >

          <mat-label>General Section</mat-label>

          <input type="number" matInput formControlName="general" />

          <mat-error \*ngIf="generalPriceErrors">{{

            generalPriceErrors

          }}</mat-error>

        </mat-form-field>

      </div>

    </fieldset>

  </form>

  <button mat-raised-button (click)="onCancel()" class="me-2">Cancel</button>

  <button

    mat-raised-button

    (click)="onSubmit()"

    [disabled]="!movieShowForm.valid"

    color="primary"

    class="ms-2"

  >

    Submit

  </button>

</div>

**Payment Form:**

<div class="wrapper p-5">

  <div class="text-center mb-3 p-2 rounded border border-2 shadow-sm">

    <h1 class="text-center d-inline-block my-2">Payment Gateway</h1>

    (<span class="text-danger d-inline-block my-2">do not refresh the page</span

    >)

  </div>

  <div class="my-auto h-70vh row g-0 justify-content-around">

    <div class="col-6 px-2 mx-auto order-2">

      <form [formGroup]="paymentForm" class="example-form p-4">

        <mat-form-field appearance="outline" class="d-block w-100 text-dark">

          <mat-label>Card Number</mat-label>

          <input

            matInput

            formControlName="cardNumber"

            type="tel"

            #ccNumber

            class="fs-3 bolder col-12"

            (keyup)="creditCardNumberSpacing()"

          />

          <mat-hint>16 digit card number</mat-hint>

          <mat-error \*ngIf="cardNumberErrors">{{ cardNumberErrors }}</mat-error>

        </mat-form-field>

        <div class="row g-0 justify-content-around">

          <mat-form-field

            appearance="outline"

            class="d-block text-dark col-sm-12 col-lg-4 px-1"

          >

            <mat-label>Month</mat-label>

            <mat-select formControlName="cardExpiryMonth">

              <mat-option \*ngFor="let month of tempMonths" [value]="month">

                {{ month }}

              </mat-option>

            </mat-select>

            <mat-hint>Select card expiry month</mat-hint>

            <mat-error \*ngIf="monthErrors">{{ monthErrors }}</mat-error>

          </mat-form-field>

          <mat-form-field

            appearance="outline"

            class="d-block text-dark col-sm-12 col-lg-4 px-1"

          >

            <mat-label>Year</mat-label>

            <mat-select formControlName="cardExpiryYear">

              <mat-option \*ngFor="let year of tempYears" [value]="year">

                {{ year }}

              </mat-option>

            </mat-select>

            <mat-hint>select card expiry year</mat-hint>

            <mat-error \*ngIf="yearErrors">{{ yearErrors }}</mat-error>

          </mat-form-field>

          <mat-form-field

            appearance="outline"

            class="d-block text-dark col-sm-12 col-lg-4 px-1"

          >

            <mat-label>CVV</mat-label>

            <input

              matInput

              [type]="cvvHide ? 'password' : 'text'"

              formControlName="cardCVV"

            />

            <button

              mat-icon-button

              matSuffix

              (click)="cvvHide = !cvvHide"

              [attr.aria-label]="'Hide password'"

              [attr.aria-pressed]="cvvHide"

            >

              <mat-icon>{{

                cvvHide ? "visibility\_off" : "visibility"

              }}</mat-icon>

            </button>

            <mat-error \*ngIf="cvvErrors">{{ cvvErrors }}</mat-error>

          </mat-form-field>

        </div>

        <button

          mat-raised-button

          (click)="onSubmit()"

          [disabled]="!paymentForm.valid"

          color="primary"

          class="col-12 my-3"

        >

          Pay {{ tempScreen.amount | currency: "INR" }}

        </button>

      </form>

    </div>

    <div class="col-6 px-2 mx-auto order-1">

      <table class="table">

        <thead>

          <tr>

            <th scope="col" colspan="2">Booking Details</th>

          </tr>

        </thead>

        <tbody>

          <tr>

            <td>Auditorium</td>

            <th scope="row">{{ selectedMembers.auditoriumName }}</th>

          </tr>

          <tr>

            <td>Show</td>

            <th scope="row">

              {{ selectedMembers.showName }}

            </th>

          </tr>

          <tr>

            <td>Show Timing</td>

            <th scope="row">

              {{ formatTime(selectedMembers.showTime) }}

            </th>

          </tr>

          <tr>

            <td>Movie Name</td>

            <th scope="row">{{ selectedMembers.movieName | uppercase }}</th>

          </tr>

          <tr>

            <td>Movie Lang</td>

            <th scope="row">{{ selectedMembers.movieLanguage }}</th>

          </tr>

          <tr>

            <td>Date</td>

            <th scope="row">{{ selectedMembers.date | date: "mediumDate" }}</th>

          </tr>

        </tbody>

      </table>

    </div>

  </div>

</div>

**Screen:**

<div class="screen-container w-100 py-3 bg-dark text-white">

  <span class="d-inline-block text-warning mx-auto text-center py-2 w-100"

    >NOTE: do not refresh the page</span

  >

  <div class="my-auto row g-0 align-content-center">

    <div class="ticket-details mb-3 row g-0 justify-content-between">

      <div class="col-4 text-center">

        Movie: &nbsp;

        <span class="lead text-white">{{

          selectMembers.movieName | uppercase

        }}</span>

      </div>

      <div class="col-4 text-center">

        Time: &nbsp;

        <span class="lead">{{ formatTime(selectMembers.showTime) }}</span>

      </div>

      <div class="col-4 text-center">

        Date: &nbsp;

        <span class="lead">{{ selectMembers.date | date: "fullDate" }}</span>

      </div>

    </div>

    <div class="ticket-details mb-3 row g-0 justify-content-between">

      <div class="col-4 text-center">

        Seats Selected: &nbsp;

        <span class="lead text-danger">{{ getSelectedSeats() }}</span>

      </div>

      <div class="col-4 text-center">

        Amount: &nbsp;

        <span class="lead">{{ totalAmount }}</span>

      </div>

      <div class="col-4 text-center">

        <button

          mat-raised-button

          type="submit"

          [disabled]="seatsToBeSelected != 0"

          (click)="onProceed()"

        >

          Proceed

        </button>

      </div>

    </div>

    <!-- <div class="row g-0 text-center">

      <div class="col-4 text-center">

        <mat-icon

          class="fs-sm-5 fs-lg-3 w-auto h-auto text-danger"

          aria-hidden="false"

          aria-label="Example home icon"

          >chair

        </mat-icon>

        - <span class="text-white">Booked</span>

      </div>

      <div class="col-4 text-center">

        <mat-icon

          class="fs-sm-5 fs-lg-3 w-auto h-auto text-white"

          aria-hidden="false"

          aria-label="Example home icon"

          >chair

        </mat-icon>

        - <span class="text-white">Avaliable</span>

      </div>

      <div class="col-4 text-center">

        <mat-icon

          class="fs-sm-5 fs-lg-3 w-auto h-auto text-info"

          aria-hidden="false"

          aria-label="Example home icon"

          >chair

        </mat-icon>

        - <span class="text-white">Your Selection</span>

      </div>

    </div> -->

    <div

      class="screen-layout position-relative w-100 bg-dark text-white p-sm-0"

    >

      <mat-card class="bg-dark text-white text-center">

        <mat-list class="bg-dark text-white">

          <ng-container

            \*ngFor="let item of tempSeatColumns.reverse(); index as i"

          >

            <h3 class="text-danger m-1" \*ngIf="i == 7">

              <!-- EXECUTIVE &#8377;200.00 -->

              EXECUTIVE {{ generalPrice$ | async | currency: "INR" }}

            </h3>

            <h3 class="text-danger m-1" \*ngIf="i == 3">

              SILVER {{ silverPrice$ | async | currency: "INR" }}

            </h3>

            <h3 class="text-danger m-1" \*ngIf="i == 0">

              GOLD {{ goldPrice$ | async | currency: "INR" }}

            </h3>

            <mat-list-item class="justify-content-center py-1 h-auto px-sm-0">

              <!-- <div class="col-1 text-info fs-3 px-sm-0">{{ item }}</div> -->

              <div

                class="

                  row

                  col-12

                  g-0

                  mx-auto

                  justify-content-center

                  px-sm-0

                  text-center

                "

              >

                <div class="col-1 text-center text-info fs-3">

                  {{ item }}

                </div>

                <div class="col-auto">

                  <ng-container \*ngFor="let seat of tempSeatRows; index as i">

                    <div

                      class="me-sm-1 mx-lg-4 d-inline"

                      \*ngIf="i == 3 || i == 7"

                    ></div>

                    <input

                      type="checkbox"

                      class="btn-check"

                      name="{{ item + seat }}"

                      [checked]="isAdded(item + seat)"

                      [disabled]="isSeatAlreadySelected(item + seat)"

                      [id]="item + seat"

                      [value]="item + seat"

                      (click)="addSeat($event)"

                    />

                    <label

                      [for]="item + seat"

                      class="

                        col-auto

                        p-sm-0

                        me-sm-1

                        ms-sm-0

                        mx-lg-2

                        pe-cursor

                        h-auto

                      "

                      [ngClass]="{

                        'text-white': !isAdded(item + seat),

                        'text-info': isAdded(item + seat),

                        'text-danger': isSeatAlreadySelected(item + seat)

                      }"

                    >

                      <mat-icon

                        class="fs-sm-5 fs-lg-3 w-auto h-auto"

                        aria-hidden="false"

                        aria-label="Example home icon"

                        >chair

                      </mat-icon>

                    </label>

                  </ng-container>

                </div>

              </div>

            </mat-list-item>

          </ng-container>

        </mat-list>

      </mat-card>

    </div>

    <div

      class="

        screen

        col-10

        mx-auto

        py-3

        text-white

        bg-danger

        text-center

        mt-sm-1 mt-lg-4

      "

    >

      Screen is this way

    </div>

  </div>

</div>

**Select Members:**

<mat-card>

  <form [formGroup]="ticketsForm" (ngSubmit)="proceed()">

    <mat-horizontal-stepper [linear]="true" labelPosition="bottom" #stepper>

      <mat-step [stepControl]="ticketsForm.get('auditoriumName')!">

        <ng-template matStepLabel>Select the Cinema Hall</ng-template>

        <mat-form-field class="d-block w-100 mt-2">

          <mat-label>Cinema Hall Name</mat-label>

          <mat-select class="text-dark" formControlName="auditoriumName">

            <mat-option

              \*ngFor="let hall of allAuditoriums$ | async"

              [value]="hall.name"

              (onSelectionChange)="onAuditoriumSelect(hall.id!, hall.name!)"

            >

              {{ hall.name }}

            </mat-option>

          </mat-select>

          <mat-error \*ngIf="auditoriumErrors">{{ auditoriumErrors }}</mat-error>

        </mat-form-field>

        <div>

          <button mat-button matStepperNext type="button">Next</button>

        </div>

      </mat-step>

      <mat-step

        [stepControl]="ticketsForm.get('showName')!"

        label="Select the Show Timing"

      >

        <mat-form-field class="d-block w-100 mt-2">

          <mat-label class="text-dark">Show Timing</mat-label>

          <mat-select class="text-dark" formControlName="showName">

            <mat-option

              \*ngFor="let show of allShows$ | async"

              [value]="show.name"

              (onSelectionChange)="onShowSelect(show.id!, show.name!)"

            >

              {{ show.name + " | Time: " + formatTime(show.startTime) }}

            </mat-option>

          </mat-select>

          <mat-error \*ngIf="showErrors">{{ showErrors }}</mat-error>

        </mat-form-field>

        <div>

          <button mat-button matStepperPrevious type="button">Back</button>

          <button mat-button matStepperNext type="button">Next</button>

        </div>

      </mat-step>

      <mat-step

        [stepControl]="ticketsForm.get('date')!"

        label="Select the Date"

      >

        <mat-form-field class="d-block w-100 mt-2">

          <mat-label class="text-dark">Choose a date</mat-label>

          <input

            class="text-dark"

            formControlName="date"

            (dateChange)="onDateSelect($event)"

            matInput

            [matDatepicker]="picker"

            [min]="startDate$ | async"

            [max]="endDate$ | async"

          />

          <mat-datepicker-toggle

            matSuffix

            [for]="picker"

          ></mat-datepicker-toggle>

          <mat-datepicker #picker></mat-datepicker>

          <mat-error \*ngIf="dateErrors">{{ dateErrors }}</mat-error>

        </mat-form-field>

        <div>

          <button mat-button matStepperPrevious type="button">Back</button>

          <button mat-button matStepperNext type="button">Next</button>

        </div>

      </mat-step>

      <mat-step

        [stepControl]="ticketsForm.get('seats')!"

        label="Select No.of seats"

      >

        <div

          class="col-12 my-4 text-center"

          [ngClass]="selectedSeats! > 0 ? 'text-primary' : 'text-danger'"

        >

          <mat-icon

            class="fs-1"

            aria-hidden="false"

            aria-label="Example home icon"

          >

            {{ icon }}

          </mat-icon>

        </div>

        <div \*ngIf="selectedSeats! < 1" class="text-center text-danger">

          No Seats avaliable, please select different show timing

        </div>

        <div

          \*ngIf="selectedSeats! > 0"

          class="row g-0 justify-content-around mb-4"

        >

          <div

            class="col-auto mx-2"

            \*ngFor="let seat of avaliableSeats$ | async"

          >

            <input

              type="radio"

              class="btn-check"

              formControlName="seats"

              [checked]="seat == selectedSeats"

              (change)="onSeatsChange(seat)"

              [id]="seat"

              [value]="seat"

            />

            <label

              [for]="seat"

              class="px-3 py-2 rounded-circle border border-4 pe-cursor fs-5"

              [ngClass]="

                seat == selectedSeats!

                  ? 'text-success, border-success'

                  : 'text-warning, border-secondary'

              "

            >

              {{ seat }}

            </label>

          </div>

        </div>

        <div>

          <button mat-button matStepperPrevious type="button">Back</button>

          <button

            mat-button

            matStepperNext

            [disabled]="selectedSeats! < 1"

            type="button"

          >

            next

          </button>

        </div>

      </mat-step>

      <mat-step>

        <ng-template matStepLabel>Review</ng-template>

        <table class="table table-striped">

          <tr>

            <th scope="col">Auditorium</th>

            <td>{{ ticketsForm.get("auditoriumName")?.value! }}</td>

          </tr>

          <tr>

            <th scope="col">Show</th>

            <td>

              {{

                ticketsForm.get("showName")?.value! +

                  " | Time: " +

                  formatTime(selectMembers?.showTime!)

              }}

            </td>

          </tr>

          <tr>

            <th scope="col">Date</th>

            <td>{{ ticketsForm.get("date")?.value! | date: "fullDate" }}</td>

          </tr>

          <tr>

            <th scope="col">Seats</th>

            <td>{{ ticketsForm.get("seats")?.value! }}</td>

          </tr>

        </table>

        <div>

          <button mat-button matStepperPrevious type="button">Back</button>

          <button mat-button color="primary" [disabled]="!ticketsForm.valid">

            Proceed

          </button>

        </div>

      </mat-step>

    </mat-horizontal-stepper>

  </form>

</mat-card>

**Show Form:**

<div class="wrapper">

  <h1 class="text-center mb-3 p-2 rounded border border-2 shadow-sm">

    Add New Show

  </h1>

  <form class="example-form p-4" [formGroup]="showForm">

    <mat-form-field class="d-block w-100 text-dark" appearance="outline">

      <mat-label>Show Name</mat-label>

      <input matInput formControlName="name" list="show-name" />

      <datalist id="show-name">

        <option \*ngFor="let show of showNames" [value]="show">

          {{ show }}

        </option>

      </datalist>

      <mat-error \*ngIf="nameErrors">

        {{ nameErrors }}

      </mat-error>

    </mat-form-field>

    <mat-form-field class="d-block w-100 text-dark" appearance="outline">

      <mat-label>Show Timing</mat-label>

      <input

        type="time"

        matInput

        placeholder="1H 20M"

        formControlName="startTime"

      />

      <mat-error \*ngIf="startTimeErrors" color="accent"

        >{{ startTimeErrors }}

      </mat-error>

    </mat-form-field>

  </form>

  <button mat-raised-button (click)="onCancel()" class="me-2">Cancel</button>

  <button

    mat-raised-button

    (click)="onSubmit()"

    [disabled]="!showForm.valid"

    color="primary"

    class="ms-2"

  >

    Submit

  </button>

</div>

**INDEX.HTML**

<!DOCTYPE html>

<html lang="en">

  <head>

    <meta charset="utf-8" />

    <title>My Movie Plan</title>

    <base href="/" />

    <meta name="viewport" content="width=device-width, initial-scale=1" />

    <link rel="icon" type="image/x-icon" href="favicon.ico" />

    <!-- Bootstrap Css -->

    <link

      href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.1/dist/css/bootstrap.min.css"

      rel="stylesheet"

      integrity="sha384-+0n0xVW2eSR5OomGNYDnhzAbDsOXxcvSN1TPprVMTNDbiYZCxYbOOl7+AMvyTG2x"

      crossorigin="anonymous"

    />

    <!-- Animated CSS -->

    <!-- <link

      rel="stylesheet"

      href="https://cdnjs.cloudflare.com/ajax/libs/animate.css/4.1.1/animate.min.css"

      crossorigin="anonymous"

    /> -->

    <link rel="preconnect" href="https://fonts.gstatic.com" />

    <link

      href="https://fonts.googleapis.com/css2?family=Roboto:wght@300;400;500&display=swap"

      rel="stylesheet"

    />

    <link

      href="https://fonts.googleapis.com/icon?family=Material+Icons"

      rel="stylesheet"

    />

    <link rel="preconnect" href="https://fonts.gstatic.com" />

    <link

      href="https://fonts.googleapis.com/css2?family=Roboto:wght@300;400;500&display=swap"

      rel="stylesheet"

    />

    <link

      href="https://fonts.googleapis.com/icon?family=Material+Icons"

      rel="stylesheet"

    />

    <link rel="preconnect" href="https://fonts.gstatic.com" />

    <link

      href="https://fonts.googleapis.com/css2?family=Roboto:wght@300;400;500&display=swap"

      rel="stylesheet"

    />

    <link

      href="https://fonts.googleapis.com/icon?family=Material+Icons"

      rel="stylesheet"

    />

  </head>

  <body class="mat-typography">

    <app-root></app-root>

    <script

      src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.1/dist/js/bootstrap.bundle.min.js"

      integrity="sha384-gtEjrD/SeCtmISkJkNUaaKMoLD0//ElJ19smozuHV6z3Iehds+3Ulb9Bn9Plx0x4"

      crossorigin="anonymous"

    ></script>

    <script type="text/javascript">

      const myCarousel = document.querySelector("#movies-carousel");

      if (myCarousel) {

        const carousel = new bootstrap.Carousel(myCarousel, {

          interval: 2000,

          wrap: false,

        });

      }

    </script>

  </body>

</html>

**DOCKER FILE:**

FROM node:current-alpine3.11 as build-stage

# RUN mkdir -p /app

WORKDIR /usr/src/app

COPY package.json package-lock.json ./

RUN npm install

COPY . .

RUN npm run build --prod

# CMD ["npm", "start"]

FROM nginx:latest-alpine as prod-stage

COPY --from=build-stage /usr/src/app/dist/my-movie-plan /user/share/nginx/html

COPY nginx.conf /etc/nginx/conf.d/default.conf

EXPOSE 4040

**JENKINS FILES:**

pipeline {

    agent any

    stages {

        stage('git repo clone') {

            steps {

                git branch: 'main', url: 'https://github.com/JRiyaz/my-movie-plan.git'

            }

        }

        // stage('clean') {

        //     steps {

        //         sh "mvn clean"

        //     }

        // }

        // stage('package') {

        //     steps {

        //         sh "mvn package"

        //     }

        // }

        // stage('docker build') {

        //     steps {

        //         sh "docker build -t employee-management ."

        //     }

        // }

        stage('docker compose build') {

             steps {

                 sh "docker-compose build"

             }

        }

        stage('docker compose start') {

             steps {

                 sh "docker-compose up"

             }

        }

    }

}

**KARMA CONFIG:**

// Karma configuration file, see link for more information

// https://karma-runner.github.io/1.0/config/configuration-file.html

module.exports = function (config) {

  config.set({

    basePath: '',

    frameworks: ['jasmine', '@angular-devkit/build-angular'],

    plugins: [

      require('karma-jasmine'),

      require('karma-chrome-launcher'),

      require('karma-jasmine-html-reporter'),

      require('karma-coverage'),

      require('@angular-devkit/build-angular/plugins/karma')

    ],

    client: {

      jasmine: {

        // you can add configuration options for Jasmine here

        // the possible options are listed at https://jasmine.github.io/api/edge/Configuration.html

        // for example, you can disable the random execution with `random: false`

        // or set a specific seed with `seed: 4321`

      },

      clearContext: false // leave Jasmine Spec Runner output visible in browser

    },

    jasmineHtmlReporter: {

      suppressAll: true // removes the duplicated traces

    },

    coverageReporter: {

      dir: require('path').join(\_\_dirname, './coverage/my-movie-plan'),

      subdir: '.',

      reporters: [

        { type: 'html' },

        { type: 'text-summary' }

      ]

    },

    reporters: ['progress', 'kjhtml'],

    port: 9876,

    colors: true,

    logLevel: config.LOG\_INFO,

    autoWatch: true,

    browsers: ['Chrome'],

    singleRun: false,

    restartOnFileChange: true

  });

};

**BACK END**

**CONFIG:**

**Initial Data:**

package com.MyMoviePlan.config;

import com.MyMoviePlan.service.UserService;

import org.springframework.beans.factory.annotation.Autowired;

import org.springframework.boot.CommandLineRunner;

import org.springframework.security.crypto.password.PasswordEncoder;

import org.springframework.stereotype.Component;

@Component

public class InitialData implements CommandLineRunner {

@Autowired

private UserService service;

@Autowired

private PasswordEncoder passwordEncoder;

@Override

public void run(String... args) throws Exception {

// final UserEntity super\_admin = new UserEntity("Riyaz J", "j.riyazu@gmail.com",

// "8099531318", "Male", passwordEncoder.encode("super"), true,

// true, true, true, true,

// ROLE\_SUPER\_ADMIN);

//

// final UserEntity admin = new UserEntity("Fayaz J", "j.fayaz@gmail.com",

// "9019168638", "Male", passwordEncoder.encode("admin"), true,

// true, true, true, true,

// ROLE\_ADMIN);

//

// final UserEntity user = new UserEntity("Inthiyaz J", "j.inthiyaz@gmail.com",

// "8985462507", "Male", passwordEncoder.encode("user"), true,

// true, true, true, true,

// ROLE\_USER);

//

// service.save(super\_admin);

// service.save(admin);

// service.save(user);

}

}

**CONTROLLERS:**

**Auditorium Controller:**

package com.MyMoviePlan.controller;

import com.MyMoviePlan.entity.\*;

import com.MyMoviePlan.exception.AuditoriumNotFoundException;

import com.MyMoviePlan.exception.BookingNotFoundException;

import com.MyMoviePlan.exception.MovieShowNotFoundException;

import com.MyMoviePlan.exception.ShowNotFoundException;

import com.MyMoviePlan.model.TicketDetails;

import com.MyMoviePlan.model.UserRole;

import com.MyMoviePlan.repository.\*;

import com.MyMoviePlan.service.UserService;

import lombok.AllArgsConstructor;

import org.springframework.security.access.prepost.PreAuthorize;

import org.springframework.web.bind.annotation.\*;

import java.util.List;

import java.util.stream.Collectors;

@CrossOrigin

@RestController

@RequestMapping("/auditorium")

@AllArgsConstructor

public class AuditoriumController {

private final ShowRepository show;

private final UserService service;

private final BookingRepository booking;

private final MovieRepository movie;

private final MovieShowsRepository movieShow;

private final AuditoriumRepository auditorium;

@GetMapping({"/", "all"})

public List<AuditoriumEntity> findAllAuditoriums() {

return this.auditorium.findAll();

}

@GetMapping("{auditorium\_id}")

@PreAuthorize("hasAuthority('WRITE')")

public AuditoriumEntity findAuditoriumById(@PathVariable final int auditorium\_id) {

return this.auditorium.findById(auditorium\_id)

.orElseThrow(() ->

new AuditoriumNotFoundException("Auditorium with id: " + auditorium\_id + " not found."));

}

@PostMapping("add")

@PreAuthorize("hasAuthority('WRITE')")

public AuditoriumEntity saveAuditorium(@RequestBody final AuditoriumEntity auditorium) {

return this.auditorium.save(auditorium);

}

@PutMapping("update")

@PreAuthorize("hasAuthority('UPDATE')")

public AuditoriumEntity updateAuditorium(@RequestBody final AuditoriumEntity auditorium) {

return this.auditorium.save(auditorium);

}

@DeleteMapping("delete/{auditorium\_id}")

@PreAuthorize("hasAuthority('DELETE')")

public void deleteAuditorium(@PathVariable final int auditorium\_id) {

this.auditorium.deleteById(auditorium\_id);

}

/\*

\* ============================= Show Controller ==========================

\*/

@GetMapping("{auditorium\_id}/show/{show\_id}")

public ShowEntity findShowById(@PathVariable final int auditorium\_id,

@PathVariable final int show\_id) {

return this.findAuditoriumById(auditorium\_id).getShows()

.stream()

.filter(show -> show.getId() == show\_id)

.findFirst()

.orElseThrow(() ->

new ShowNotFoundException("Show with Id: " + show\_id + " not found"));

}

@GetMapping("{auditorium\_id}/show/all")

public List<ShowEntity> findAllShows(@PathVariable final int auditorium\_id) {

return this.findAuditoriumById(auditorium\_id).getShows();

}

@PostMapping("{auditorium\_id}/show/add")

@PreAuthorize("hasAuthority('WRITE')")

public ShowEntity saveShow(@PathVariable final int auditorium\_id,

@RequestBody final ShowEntity show) {

final AuditoriumEntity auditorium = this.findAuditoriumById(auditorium\_id);

show.setAuditorium(auditorium);

return this.show.save(show);

}

@PutMapping("{auditorium\_id}/show/update")

@PreAuthorize("hasAuthority('UPDATE')")

public ShowEntity updateShow(@PathVariable final int auditorium\_id,

@RequestBody final ShowEntity show) {

final AuditoriumEntity auditorium = this.findAuditoriumById(auditorium\_id);

show.setAuditorium(auditorium);

return this.show.save(show);

}

@DeleteMapping("{auditorium\_id}/show/delete/{show\_id}")

@PreAuthorize("hasAuthority('DELETE')")

public void deleteShow(@PathVariable final int auditorium\_id,

@PathVariable final int show\_id) {

final ShowEntity show = this.findShowById(auditorium\_id, show\_id);

this.show.deleteById(show.getId());

}

/\*

\* ============================= Movie Show Controller ==========================

\*/

@GetMapping("movie/{movieId}")

public List<AuditoriumEntity> findAuditoriumsByMovieId(@PathVariable final int movieId) {

return this.findAllAuditoriums().stream()

.filter(halls -> halls.getShows()

.stream()

.anyMatch(show -> show.getMovieShows()

.stream()

.anyMatch(m\_show -> m\_show.getMovieId() == movieId)))

.collect(Collectors.toList());

}

@GetMapping("{auditorium\_id}/movie/{movieId}")

public List<ShowEntity> findShowsByMovieId(@PathVariable final int auditorium\_id, @PathVariable final int movieId) {

return this.findAllShows(auditorium\_id).stream()

.filter(show -> show.getMovieShows()

.stream()

.anyMatch(m\_show -> m\_show.getMovieId() == movieId))

.collect(Collectors.toList());

}

@GetMapping("{auditorium\_id}/show/{show\_id}/movie-show/all")

public List<MovieShowsEntity> findAllMovieShows(@PathVariable final int auditorium\_id,

@PathVariable final int show\_id) {

return this.findShowById(auditorium\_id, show\_id)

.getMovieShows();

}

@GetMapping("{auditorium\_id}/show/{show\_id}/movie-show/{movie\_show\_id}")

public MovieShowsEntity findMovieShowById(@PathVariable final int auditorium\_id,

@PathVariable final int show\_id,

@PathVariable final int movie\_show\_id) {

return this.findShowById(auditorium\_id, show\_id)

.getMovieShows()

.stream()

.filter(movie\_show -> movie\_show.getId() == movie\_show\_id)

.findFirst()

.orElseThrow(

() -> new MovieShowNotFoundException("Movie Show with id: "

+ movie\_show\_id + " not found"));

}

@PostMapping("{auditorium\_id}/show/{show\_id}/movie-show/add")

@PreAuthorize("hasAuthority('WRITE')")

public MovieShowsEntity saveMovieShow(@PathVariable final int auditorium\_id,

@PathVariable final int show\_id,

@RequestBody final MovieShowsEntity movieShow) {

final ShowEntity show = this.findShowById(auditorium\_id, show\_id);

final int movieId = movieShow.getMovieId();

movieShow.setShow(show);

movieShow.setMovieId(this.movie.findById(movieId).get().getId());

return this.movieShow.save(movieShow);

}

@PutMapping("{auditorium\_id}/show/{show\_id}/movie-show/update")

@PreAuthorize("hasAuthority('UPDATE')")

public MovieShowsEntity updateMovieShow(@PathVariable final int auditorium\_id,

@PathVariable final int show\_id,

@RequestBody final MovieShowsEntity movieShow) {

final ShowEntity show = this.findShowById(auditorium\_id, show\_id);

movieShow.setShow(show);

return this.movieShow.save(movieShow);

}

@DeleteMapping("{auditorium\_id}/show/{show\_id}/movie-show/delete/{movie\_show\_id}")

@PreAuthorize("hasAuthority('DELETE')")

public void deleteMovieShow(@PathVariable final int auditorium\_id,

@PathVariable final int show\_id,

@PathVariable final int movie\_show\_id) {

final MovieShowsEntity movieShow = this.findMovieShowById(auditorium\_id, show\_id, movie\_show\_id);

this.movieShow.deleteById(movieShow.getMovieId());

}

/\*

\* ============================= Booking Controller ==========================

\*/

@GetMapping("{auditorium\_id}/show/{show\_id}/movie-show/{movie\_show\_id}/booking/{booking\_id}")

@PreAuthorize("hasAuthority('READ')")

public BookingEntity findBookingById(@PathVariable final int auditorium\_id,

@PathVariable final int show\_id,

@PathVariable final int movie\_show\_id,

@PathVariable final int booking\_id) {

final MovieShowsEntity movieShow = this.findMovieShowById(auditorium\_id, show\_id, movie\_show\_id);

return movieShow.getBookings()

.stream().filter(booking -> booking.getId() == booking\_id)

.findFirst()

.orElseThrow(() -> new BookingNotFoundException("Booking with id: "

+ booking\_id + " not found."));

}

@GetMapping("{auditorium\_id}/show/{show\_id}/movie-show/{movie\_show\_id}/booking/all")

@PreAuthorize("hasAuthority('WRITE')")

public List<BookingEntity> allBookings(@PathVariable final int auditorium\_id,

@PathVariable final int show\_id,

@PathVariable final int movie\_show\_id) {

final UserEntity user = this.service.getLoggedInUser();

if (user.getUserRole().equals(UserRole.ROLE\_ADMIN) || user.getUserRole().equals(UserRole.ROLE\_SUPER\_ADMIN))

return this.findMovieShowById(auditorium\_id, show\_id, movie\_show\_id).getBookings();

else

return this.findMovieShowById(auditorium\_id, show\_id, movie\_show\_id).getBookings()

.stream().filter(booking -> booking.getUserId().equals(user.getId()))

.collect(Collectors.toList());

}

@PostMapping("{auditorium\_id}/show/{show\_id}/movie-show/{movie\_show\_id}/booking/add")

// @PreAuthorize("hasAuthority('WRITE')")

public BookingEntity saveBooking(@PathVariable final int auditorium\_id,

@PathVariable final int show\_id,

@PathVariable final int movie\_show\_id,

@RequestBody final BookingEntity booking) {

final MovieShowsEntity moveShow = this.findMovieShowById(auditorium\_id, show\_id, movie\_show\_id);

booking.setUserId(this.service.getLoggedInUser().getId());

// booking.setUserId(this.service.findByMobile("8099531318").get().getId());

booking.setMovieShow(moveShow);

booking.setBookingDetails(new BookingDetailsEntity(auditorium\_id, show\_id, movie\_show\_id, moveShow.getMovieId()));

return this.booking.save(booking);

}

@PutMapping("{auditorium\_id}/show/{show\_id}/movie-show/{movie\_show\_id}/booking/update")

@PreAuthorize("hasAuthority('UPDATE')")

public BookingEntity updateBooking(@PathVariable final int auditorium\_id,

@PathVariable final int show\_id,

@PathVariable final int movie\_show\_id,

@RequestBody final BookingEntity booking) {

final MovieShowsEntity moveShow = this.findMovieShowById(auditorium\_id, show\_id, movie\_show\_id);

booking.setMovieShow(moveShow);

return this.booking.save(booking);

}

@DeleteMapping("{auditorium\_id}/show/{show\_id}/movie-show/{movie\_show\_id}/booking/delete/{booking\_id}")

@PreAuthorize("hasAuthority('READ')")

public void deleteBookingById(@PathVariable final int auditorium\_id,

@PathVariable final int show\_id,

@PathVariable final int movie\_show\_id,

@PathVariable final int booking\_id) {

final BookingEntity booking = this.findBookingById(auditorium\_id, show\_id, movie\_show\_id, booking\_id);

this.booking.deleteById(booking.getId());

}

@GetMapping("ticket-details/{booking\_id}")

@PreAuthorize("hasAuthority('READ')")

public TicketDetails getMovieDetails(@PathVariable final int booking\_id) {

final PaymentEntity payment = this.booking.findById(booking\_id).get().getPayment();

final MovieShowsEntity movieShow = this.movieShow.findAll().stream().filter(m\_show -> m\_show.getBookings()

.stream().anyMatch(booking -> booking.getId() == booking\_id)).findFirst().get();

final MovieEntity movie = this.movie.findById(movieShow.getMovieId()).get();

final ShowEntity showEntity = show.findAll().stream()

.filter(show -> show.getMovieShows()

.stream().anyMatch(m\_show -> m\_show.getId() == movieShow.getId())).findFirst().get();

final AuditoriumEntity auditorium = this.auditorium.findAll().stream().filter(hall -> hall.getShows()

.stream().anyMatch(show -> show.getId() == showEntity.getId())).findFirst().get();

return new TicketDetails(auditorium.getName(), showEntity.getName(), showEntity.getStartTime(), payment.getAmount(), movie.getName(), movie.getImage(), movie.getBgImage());

}

}

**Booking:**

package com.MyMoviePlan.controller;

import com.MyMoviePlan.entity.BookingDetailsEntity;

import com.MyMoviePlan.entity.BookingEntity;

import com.MyMoviePlan.entity.UserEntity;

import com.MyMoviePlan.exception.BookingNotFoundException;

import com.MyMoviePlan.model.UserRole;

import com.MyMoviePlan.repository.BookingRepository;

import com.MyMoviePlan.service.UserService;

import lombok.AllArgsConstructor;

import org.springframework.security.access.prepost.PreAuthorize;

import org.springframework.web.bind.annotation.\*;

import java.util.List;

@CrossOrigin

@RestController

@RequestMapping("/booking")

@AllArgsConstructor

public class BookingController {

private final BookingRepository repository;

private final UserService service;

@GetMapping("{id}")

@PreAuthorize("hasAuthority('READ')")

public BookingEntity findById(@PathVariable final int id) {

return repository.findById(id)

.orElseThrow(() -> new BookingNotFoundException("Booking with id: " + id + " not found."));

}

@GetMapping("all")

@PreAuthorize("hasAuthority('READ')")

public List<BookingEntity> allBookings() {

final UserEntity user = service.getLoggedInUser();

if (user.getUserRole().equals(UserRole.ROLE\_ADMIN) || user.getUserRole().equals(UserRole.ROLE\_SUPER\_ADMIN))

return repository.findAll();

else return repository.findAllByUserIdOrderByBookedOnAsc(user.getId());

}

@GetMapping("{username}/all")

@PreAuthorize("hasAuthority('READ')")

public List<BookingEntity> findAllByUserId(@PathVariable String username) {

if (!(username.contains("-") && username.length() > 10))

username = service.getUser(username).getId();

return repository.findAllByUserIdOrderByBookedOnAsc(username);

}

@DeleteMapping("delete/{id}")

@PreAuthorize("hasAuthority('DELETE')")

public void deleteBooking(@PathVariable final int id) {

repository.deleteById(id);

}

@GetMapping("{id}/details")

@PreAuthorize("hasAuthority('READ')")

public BookingDetailsEntity findByDetailsId(@PathVariable final int id) {

return this.findById(id).getBookingDetails();

}

}

**Movie:**

package com.MyMoviePlan.controller;

import com.MyMoviePlan.entity.MovieEntity;

import com.MyMoviePlan.exception.MovieNotFoundException;

import com.MyMoviePlan.repository.MovieRepository;

import com.MyMoviePlan.repository.MovieShowsRepository;

import lombok.AllArgsConstructor;

import org.springframework.security.access.prepost.PreAuthorize;

import org.springframework.web.bind.annotation.\*;

import java.util.\*;

@CrossOrigin

@RestController

@RequestMapping("/movie")

@AllArgsConstructor

public class MovieController {

private final MovieRepository movieRepository;

private final MovieShowsRepository movieShowsRepository;

@GetMapping({"/", "all"})

public List<MovieEntity> findAll() {

return movieRepository.findAll();

}

@GetMapping("{movie\_id}")

public MovieEntity findById(@PathVariable final int movie\_id) {

return movieRepository.findById(movie\_id)

.orElseThrow(() -> new MovieNotFoundException("Movie with movie\_id: " + movie\_id + " not found."));

}

@GetMapping("up-coming")

public List<MovieEntity> upComing(@RequestParam(value = "records", required = false) Optional<String> records) {

List<MovieEntity> movies;

List<MovieEntity> allMovies;

if (records.isPresent()) {

movies = new ArrayList<>();

allMovies = this.findAll();

movieShowsRepository.findFewUpComing(Integer.parseInt(records.get()))

.forEach(m\_show -> movies.add(allMovies.stream()

.filter(movie -> (movie.getId() == m\_show.getMovieId() && movie.getRelease().getTime() > new Date().getTime()))

.findFirst().orElse(null)));

} else {

movies = new ArrayList<>();

allMovies = this.findAll();

movieShowsRepository.findAllUpComing()

.forEach(m\_show -> movies.add(allMovies.stream()

.filter(movie -> movie.getId() == m\_show.getMovieId() && movie.getRelease().getTime() > new Date().getTime())

.findFirst().orElse(null)));

}

// return (movies.size() > 0 && !movies.contains(null)) ? movies : new ArrayList<>();

movies.removeAll(Collections.singletonList(null));

return movies;

}

@GetMapping("now-playing")

public List<MovieEntity> nowPlaying(@RequestParam(value = "records", required = false) Optional<String> records) {

List<MovieEntity> movies;

List<MovieEntity> allMovies;

if (records.isPresent()) {

movies = new ArrayList<>();

allMovies = this.findAll();

movieShowsRepository.findFewNowPlaying(Integer.parseInt(records.get()))

.forEach(m\_show -> movies.add(allMovies.stream()

.filter(movie -> movie.getId() == m\_show.getMovieId())

.findFirst().orElse(null)));

} else {

movies = new ArrayList<>();

allMovies = this.findAll();

movieShowsRepository.findAllNowPlaying()

.forEach(m\_show -> movies.add(allMovies.stream()

.filter(movie -> movie.getId() == m\_show.getMovieId())

.findFirst().orElse(null)));

}

movies.removeAll(Collections.singletonList(null));

return movies;

}

@GetMapping("now-playing-up-coming")

public List<MovieEntity> nowPlayingAndUpComing() {

final List<MovieEntity> movies = new ArrayList<>();

final List<MovieEntity> allMovies = this.findAll();

movieShowsRepository.findAllNowPlayingAndUpComing()

.forEach(m\_show -> movies.add(allMovies.stream()

.filter(movie -> movie.getId() == m\_show.getMovieId())

.findFirst().orElse(null)));

movies.removeAll(Collections.singletonList(null));

return movies;

}

@GetMapping("not-playing")

public List<MovieEntity> notPlaying() {

final List<MovieEntity> movies = new ArrayList<>();

final List<MovieEntity> allMovies = this.findAll();

movieShowsRepository.findAllNotPlaying()

.forEach(m\_show -> movies.add(allMovies.stream()

.filter(movie -> movie.getId() == m\_show.getMovieId())

.findFirst().orElse(null)));

movies.removeAll(Collections.singletonList(null));

return movies;

}

@PostMapping("add")

@PreAuthorize("hasAuthority('WRITE')")

public MovieEntity saveMovie(@RequestBody final MovieEntity movie) {

return movieRepository.save(movie);

}

@PutMapping("update")

@PreAuthorize("hasAuthority('UPDATE')")

public MovieEntity updateMovie(@RequestBody final MovieEntity movie) {

return movieRepository.save(movie);

}

@DeleteMapping("delete/{movie\_id}")

@PreAuthorize("hasAuthority('DELETE')")

public void deleteMovie(@PathVariable final int movie\_id) {

movieRepository.deleteById(movie\_id);

}

}

**Movie Show :**

package com.MyMoviePlan.controller;

import com.MyMoviePlan.entity.BookingEntity;

import com.MyMoviePlan.entity.MovieShowsEntity;

import com.MyMoviePlan.exception.MovieShowNotFoundException;

import com.MyMoviePlan.model.BookedSeats;

import com.MyMoviePlan.repository.MovieShowsRepository;

import lombok.AllArgsConstructor;

import org.springframework.security.access.prepost.PreAuthorize;

import org.springframework.web.bind.annotation.\*;

import java.util.ArrayList;

import java.util.List;

import java.util.Optional;

import java.util.stream.Collectors;

@CrossOrigin

@RestController

@RequestMapping("/movie-show")

@AllArgsConstructor

public class MovieShowController {

private final MovieShowsRepository repository;

@PostMapping("add")

@PreAuthorize("hasAuthority('WRITE')")

public MovieShowsEntity save(@RequestBody MovieShowsEntity movieShow) {

return repository.save(movieShow);

}

@GetMapping("up-coming")

@PreAuthorize("hasAuthority('READ')")

public List<MovieShowsEntity> upComing(@RequestParam(value = "records", required = false) Optional<String> records) {

if (records.isPresent())

return repository.findFewUpComing(Integer.parseInt(records.get()));

return repository.findAllUpComing();

}

@GetMapping("now-playing")

public List<MovieShowsEntity> nowPlaying(@RequestParam(value = "records", required = false) Optional<String> records) {

if (records.isPresent())

return repository.findFewNowPlaying(Integer.parseInt(records.get()));

return repository.findAllNowPlaying();

}

@GetMapping("now-playing-up-coming")

public List<MovieShowsEntity> nowPlayingAndUpComing() {

return repository.findAllNowPlayingAndUpComing();

}

@GetMapping("not-playing")

@PreAuthorize("hasAuthority('WRITE')")

public List<MovieShowsEntity> notPlaying() {

return repository.findAllNotPlaying();

}

@GetMapping("all")

public List<MovieShowsEntity> findAllMovieShows() {

return repository.findAll();

}

@GetMapping("{movie\_show\_id}")

public MovieShowsEntity findMovieShowById(@PathVariable final int movie\_show\_id) {

return repository.findById(movie\_show\_id)

.orElseThrow(

() -> new MovieShowNotFoundException("Movie Show with id: " + movie\_show\_id + " not found")

);

}

@DeleteMapping("delete/{movie\_show\_id}")

@PreAuthorize("hasAuthority('DELETE')")

public void deleteMovieShow(@PathVariable final int movie\_show\_id) {

repository.deleteById(movie\_show\_id);

}

/\*

\* ============================= Booking Controller ==========================

\*/

@GetMapping("{movie\_show\_id}/booked-seats/{on}")

@PreAuthorize("hasAuthority('READ')")

public BookedSeats bookedSeats(@PathVariable final int movie\_show\_id, @PathVariable final String on) {

final List<BookingEntity> bookings = this.findMovieShowById(movie\_show\_id).getBookings()

.stream().filter(m\_show -> m\_show.getDateOfBooking().toString().equals(on))

.collect(Collectors.toList());

int count = 0;

List<String> seats = new ArrayList<>();

for (BookingEntity booking : bookings) {

count += booking.getTotalSeats();

seats.addAll(booking.getSeatNumbers());

}

return new BookedSeats(count, seats);

}

}

**Show:**

package com.MyMoviePlan.controller;

import com.MyMoviePlan.entity.BookingEntity;

import com.MyMoviePlan.entity.MovieShowsEntity;

import com.MyMoviePlan.entity.ShowEntity;

import com.MyMoviePlan.exception.BookingNotFoundException;

import com.MyMoviePlan.exception.MovieShowNotFoundException;

import com.MyMoviePlan.exception.ShowNotFoundException;

import com.MyMoviePlan.repository.BookingRepository;

import com.MyMoviePlan.repository.MovieRepository;

import com.MyMoviePlan.repository.MovieShowsRepository;

import com.MyMoviePlan.repository.ShowRepository;

import com.MyMoviePlan.service.UserService;

import lombok.AllArgsConstructor;

import org.springframework.security.access.prepost.PreAuthorize;

import org.springframework.web.bind.annotation.\*;

import java.util.List;

@CrossOrigin

@RestController

@RequestMapping("/show")

@AllArgsConstructor

public class ShowController {

private final ShowRepository show;

private final MovieShowsRepository movieShow;

private final MovieRepository movie;

private final UserService service;

private final BookingRepository booking;

@GetMapping("{show\_id}")

public ShowEntity findShowById(@PathVariable final int show\_id) {

return this.show.findById(show\_id)

.orElseThrow(() -> new ShowNotFoundException("Show with Id: " + show\_id + " not found"));

}

@GetMapping({"/", "all"})

public List<ShowEntity> findAllShows() {

return this.show.findAll();

}

@DeleteMapping("delete/{show\_id}")

@PreAuthorize("hasAuthority('DELETE')")

public void deleteShow(@PathVariable final int show\_id) {

this.show.deleteById(show\_id);

}

/\*

\* ============================= Movie Show Controller ==========================

\*/

@GetMapping("{show\_id}/movie-show/all")

public List<MovieShowsEntity> findAllMovieShows(@PathVariable final int show\_id) {

return this.findShowById(show\_id)

.getMovieShows();

}

@GetMapping("{show\_id}/movie-show/{movie\_show\_id}")

public MovieShowsEntity findMovieShowById(@PathVariable final int show\_id,

@PathVariable final int movie\_show\_id) {

return this.findShowById(show\_id)

.getMovieShows()

.stream()

.filter(movie\_show -> movie\_show.getId() == movie\_show\_id)

.findFirst()

.orElseThrow(

() -> new MovieShowNotFoundException("Movie Show with id: "

+ movie\_show\_id + " not found"));

}

@PostMapping("{show\_id}/movie-show/add")

@PreAuthorize("hasAuthority('WRITE')")

public MovieShowsEntity saveMovieShow(@PathVariable final int show\_id,

@RequestBody final MovieShowsEntity movieShow) {

final ShowEntity show = this.findShowById(show\_id);

final int movieId = movieShow.getMovieId();

movieShow.setShow(show);

movieShow.setMovieId(this.movie.findById(movieId).get().getId());

return this.movieShow.save(movieShow);

}

@PutMapping("{show\_id}/movie-show/update")

@PreAuthorize("hasAuthority('UPDATE')")

public MovieShowsEntity updateMovieShow(@PathVariable final int show\_id,

@RequestBody final MovieShowsEntity movieShow) {

final ShowEntity show = this.findShowById(show\_id);

movieShow.setShow(show);

return this.movieShow.save(movieShow);

}

@DeleteMapping("{show\_id}/movie-show/delete/{movie\_show\_id}")

@PreAuthorize("hasAuthority('UPDATE')")

public void deleteMovieShow(@PathVariable final int show\_id,

@PathVariable final int movie\_show\_id) {

final MovieShowsEntity movieShow = this.findMovieShowById(show\_id, movie\_show\_id);

this.movieShow.deleteById(movieShow.getMovieId());

}

/\*

\* ============================= Booking Controller ==========================

\*/

@GetMapping("{show\_id}/movie-show/{movie\_show\_id}/booking/{booking\_id}")

@PreAuthorize("hasAuthority('READ')")

public BookingEntity findBookingById(@PathVariable final int show\_id,

@PathVariable final int movie\_show\_id,

@PathVariable final int booking\_id) {

final MovieShowsEntity movieShow = this.findMovieShowById(show\_id, movie\_show\_id);

return movieShow.getBookings()

.stream().filter(booking -> booking.getId() == booking\_id)

.findFirst()

.orElseThrow(() -> new BookingNotFoundException("Booking with id: "

+ booking\_id + " not found."));

}

@GetMapping("{show\_id}/movie-show/{movie\_show\_id}/booking/all")

@PreAuthorize("hasAuthority('READ')")

public List<BookingEntity> allBookings(@PathVariable final int show\_id,

@PathVariable final int movie\_show\_id) {

return this.findMovieShowById(show\_id, movie\_show\_id).getBookings();

}

@PostMapping("{show\_id}/movie-show/{movie\_show\_id}/booking/add")

@PreAuthorize("hasAuthority('WRITE')")

public BookingEntity saveBooking(@PathVariable final int show\_id,

@PathVariable final int movie\_show\_id,

@RequestBody final BookingEntity booking) {

final MovieShowsEntity moveShow = this.findMovieShowById(show\_id, movie\_show\_id);

// booking.setUserId(this.service.getLoggedInUser().getId());

booking.setUserId(this.service.findByMobile("8099531318").get().getId());

booking.setMovieShow(moveShow);

return this.booking.save(booking);

}

@PutMapping("{show\_id}/movie-show/{movie\_show\_id}/booking/update")

@PreAuthorize("hasAuthority('UPDATE')")

public BookingEntity updateBooking(@PathVariable final int show\_id,

@PathVariable final int movie\_show\_id,

@RequestBody final BookingEntity booking) {

final MovieShowsEntity moveShow = this.findMovieShowById(show\_id, movie\_show\_id);

booking.setMovieShow(moveShow);

return this.booking.save(booking);

}

@DeleteMapping("{show\_id}/movie-show/{movie\_show\_id}/booking/delete/{booking\_id}")

@PreAuthorize("hasAuthority('READ')")

public void deleteBookingById(@PathVariable final int show\_id,

@PathVariable final int movie\_show\_id,

@PathVariable final int booking\_id) {

final BookingEntity booking = this.findBookingById(show\_id, movie\_show\_id, booking\_id);

this.booking.deleteById(booking.getId());

}

}

**User:**

package com.MyMoviePlan.controller;

import com.MyMoviePlan.entity.UserEntity;

import com.MyMoviePlan.model.Credentials;

import com.MyMoviePlan.model.HttpResponse;

import com.MyMoviePlan.model.Token;

import com.MyMoviePlan.service.UserService;

import lombok.AllArgsConstructor;

import org.springframework.security.access.prepost.PreAuthorize;

import org.springframework.web.bind.annotation.\*;

import javax.servlet.http.HttpServletRequest;

import java.util.List;

@CrossOrigin

@RestController

@RequestMapping("/user")

@AllArgsConstructor

public class UserController {

private final UserService service;

private final HttpServletRequest request;

@GetMapping("/")

public String index() {

return "Welcome " + service.getUserName();

}

@PostMapping("authenticate")

public Token authenticate(@RequestBody final Credentials credentials) {

return service.authenticate(credentials);

}

@GetMapping("check/{username}")

public Token checkUniqueness(@PathVariable final String username) {

return service.checkUniqueness(username);

}

@GetMapping("get-user")

@PreAuthorize("hasAuthority('READ')")

public UserEntity user() {

return service.getLoggedInUser()

.setPassword(null);

}

@GetMapping("all")

@PreAuthorize("hasAuthority('WRITE')")

public List<UserEntity> allUsers() {

return service.findAll();

}

@PutMapping("update/{username}")

@PreAuthorize("hasAuthority('READ')")

public UserEntity updateUser(@RequestBody final UserEntity userEntity,

@PathVariable final String username) {

return service.update(userEntity, username);

}

@PostMapping("sign-up")

public HttpResponse signUp(@RequestBody final UserEntity userEntity) {

return service.register(userEntity);

}

@PutMapping("change-password")

@PreAuthorize("hasAuthority('READ')")

public HttpResponse changePassword(@RequestBody final Credentials credentials) {

return service.changePassword(credentials);

}

@PutMapping("forgot-password")

public HttpResponse forgotPassword(@RequestBody final Credentials credentials) {

return service.forgotPassword(credentials);

}

@DeleteMapping("delete/{username}")

@PreAuthorize("hasAuthority('DELETE')")

public HttpResponse delete(@PathVariable final String username) {

return service.deleteById(username);

}

}

**ENTITY:**

**Actor:**

package com.MyMoviePlan.entity;

import com.fasterxml.jackson.annotation.JsonIgnore;

import lombok.\*;

import javax.persistence.\*;

import java.io.Serializable;

@Entity

@Data

@AllArgsConstructor

@NoArgsConstructor

@EqualsAndHashCode

@Table(name = "actors")

public class ActorEntity implements Serializable {

@Id

@GeneratedValue(strategy = GenerationType.IDENTITY)

private int id;

@Column(name = "is\_cast")

private String isCast;

private String name;

private String role;

@Column(length = Integer.MAX\_VALUE, columnDefinition="TEXT")

private String image;

@JsonIgnore

@ToString.Exclude

@EqualsAndHashCode.Exclude

@ManyToOne(targetEntity = MovieEntity.class)

private MovieEntity movie;

public ActorEntity(String name, String role, String image) {

this.name = name;

this.role = role;

this.image = image;

}

}

**Auditorium:**

package com.MyMoviePlan.entity;

import lombok.\*;

import javax.persistence.\*;

import java.io.Serializable;

import java.util.List;

//@JsonIdentityInfo(generator = ObjectIdGenerators.PropertyGenerator.class,

// property = "id", scope = ShowEntity.class)

@Entity

@Data

@NoArgsConstructor

@AllArgsConstructor

@EqualsAndHashCode

@Table(name = "auditoriums")

public class AuditoriumEntity implements Serializable {

@Id

@GeneratedValue(strategy = GenerationType.IDENTITY)

private int id;

private String name;

@Column(length = Integer.MAX\_VALUE, columnDefinition="TEXT")

private String image;

private String email;

@Column(name = "customer\_care\_no")

private String customerCareNo;

private String address;

@Column(name = "seat\_capacity")

private int seatCapacity;

@ToString.Exclude

@EqualsAndHashCode.Exclude

@ElementCollection

@CollectionTable(name = "auditorium\_facilities", joinColumns = @JoinColumn(name = "auditorium\_id"))

@Column(name = "facility")

private List<String> facilities;

@ToString.Exclude

@EqualsAndHashCode.Exclude

@ElementCollection

@CollectionTable(name = "auditorium\_safeties", joinColumns = @JoinColumn(name = "auditorium\_id"))

@Column(name = "safety")

private List<String> safeties;

@ToString.Exclude

@EqualsAndHashCode.Exclude

@JoinColumn(name = "auditorium\_id", referencedColumnName = "id")

@OneToMany(targetEntity = ShowEntity.class, cascade = CascadeType.ALL)

// @JoinTable(name = "auditorium\_shows",

// joinColumns = @JoinColumn(name = "auditorium\_id", unique = false),

// inverseJoinColumns = @JoinColumn(name = "show\_id", unique = false))

private List<ShowEntity> shows;

public AuditoriumEntity(String name, String image, String email, String customerCareNo, String address,

int seatCapacity, List<String> facilities, List<String> safeties, List<ShowEntity> shows) {

this.name = name;

this.image = image;

this.email = email;

this.customerCareNo = customerCareNo;

this.address = address;

this.seatCapacity = seatCapacity;

this.facilities = facilities;

this.safeties = safeties;

this.shows = shows;

}

public AuditoriumEntity setId(int id) {

this.id = id;

return this;

}

public AuditoriumEntity setName(String name) {

this.name = name;

return this;

}

public AuditoriumEntity setImage(String image) {

this.image = image;

return this;

}

public AuditoriumEntity setEmail(String email) {

this.email = email;

return this;

}

public AuditoriumEntity setCustomerCare(String customerCareNo) {

this.customerCareNo = customerCareNo;

return this;

}

public AuditoriumEntity setAddress(String address) {

this.address = address;

return this;

}

public AuditoriumEntity setSeatCapacity(int seatCapacity) {

this.seatCapacity = seatCapacity;

return this;

}

public AuditoriumEntity setFacilities(List<String> facilities) {

this.facilities = facilities;

return this;

}

public AuditoriumEntity setSafeties(List<String> safeties) {

this.safeties = safeties;

return this;

}

public AuditoriumEntity setShows(List<ShowEntity> shows) {

this.shows = shows;

return this;

}

}

**Booking Digitals:**

package com.MyMoviePlan.entity;

import lombok.AllArgsConstructor;

import lombok.Data;

import lombok.EqualsAndHashCode;

import lombok.NoArgsConstructor;

import javax.persistence.\*;

import java.io.Serializable;

@Entity

@Data

@AllArgsConstructor

@NoArgsConstructor

@EqualsAndHashCode

@Table(name = "booking\_details")

public class BookingDetailsEntity implements Serializable {

@Id

@GeneratedValue(strategy = GenerationType.IDENTITY)

private int id;

@Column(name = "auditorium\_id")

private int auditoriumId;

@Column(name = "show\_id")

private int showId;

@Column(name = "movie\_show\_id")

private int movieShowId;

@Column(name = "movie\_id")

private int movieId;

public BookingDetailsEntity(int auditoriumId, int showId, int movieShowId, int movieId) {

this.auditoriumId = auditoriumId;

this.showId = showId;

this.movieShowId = movieShowId;

this.movieId = movieId;

}

}

**Booking:**

package com.MyMoviePlan.entity;

import com.fasterxml.jackson.annotation.JsonIgnore;

import lombok.\*;

import javax.persistence.\*;

import java.io.Serializable;

import java.util.Date;

import java.util.List;

@Entity

@Data

@AllArgsConstructor

@NoArgsConstructor

@EqualsAndHashCode

@Table(name = "bookings")

public class BookingEntity implements Serializable {

@Id

@GeneratedValue(strategy = GenerationType.IDENTITY)

private int id;

private double amount;

@Column(name = "total\_seats")

private int totalSeats;

@Column(name = "booked\_on")

@Temporal(TemporalType.DATE)

private Date bookedOn;

@Column(name = "date\_of\_booking")

@Temporal(TemporalType.DATE)

private Date dateOfBooking;

@Column(name = "user\_id")

private String userId;

@ToString.Exclude

@EqualsAndHashCode.Exclude

@ElementCollection

@CollectionTable(name = "booked\_seats", joinColumns = @JoinColumn(name = "booking\_id"))

@Column(name = "seat\_numbers")

private List<String> seatNumbers;

@ToString.Exclude

@EqualsAndHashCode.Exclude

@OneToOne(targetEntity = PaymentEntity.class, cascade = CascadeType.ALL)

@JoinColumn(name = "payment\_id")

private PaymentEntity payment;

@ToString.Exclude

@EqualsAndHashCode.Exclude

@OneToOne(targetEntity = BookingDetailsEntity.class, cascade = CascadeType.ALL)

@JoinColumn(name = "booking\_details\_id")

private BookingDetailsEntity bookingDetails;

@JsonIgnore

@ToString.Exclude

@EqualsAndHashCode.Exclude

@ManyToOne(targetEntity = MovieShowsEntity.class)

private MovieShowsEntity movieShow;

public BookingEntity(double amount, int totalSeats, Date bookedOn, Date dateOfBooking, List<String> seatNumbers,

PaymentEntity payment, String userId, MovieShowsEntity movieShow) {

this.amount = amount;

this.totalSeats = totalSeats;

this.bookedOn = bookedOn;

this.dateOfBooking = dateOfBooking;

this.seatNumbers = seatNumbers;

this.payment = payment;

this.userId = userId;

this.movieShow = movieShow;

}

public BookingEntity setMovieShow(MovieShowsEntity movieShow) {

this.movieShow = movieShow;

return this;

}

public BookingEntity setId(int id) {

this.id = id;

return this;

}

public BookingEntity setAmount(double amount) {

this.amount = amount;

return this;

}

public BookingEntity setTotalSeats(int totalSeats) {

this.totalSeats = totalSeats;

return this;

}

public BookingEntity setStatus(Date bookedOn) {

this.bookedOn = bookedOn;

return this;

}

public BookingEntity setDateOfBooking(Date dateOfBooking) {

this.dateOfBooking = dateOfBooking;

return this;

}

public BookingEntity setSeatNumbers(List<String> seatNumbers) {

this.seatNumbers = seatNumbers;

return this;

}

public BookingEntity setPayment(PaymentEntity payment) {

this.payment = payment;

return this;

}

public BookingEntity setUserId(String userId) {

this.userId = userId;

return this;

}

}

**Movie:**

package com.MyMoviePlan.entity;

import lombok.\*;

import javax.persistence.\*;

import java.io.Serializable;

import java.util.Date;

import java.util.List;

@Entity

@Data

@AllArgsConstructor

@NoArgsConstructor

@EqualsAndHashCode

@Table(name = "movies")

public class MovieEntity implements Serializable {

@Id

@GeneratedValue(strategy = GenerationType.IDENTITY)

private int id;

private String name;

@Column(length = Integer.MAX\_VALUE, columnDefinition = "TEXT")

private String image;

@Column(name = "bg\_image", length = Integer.MAX\_VALUE, columnDefinition="TEXT")

private String bgImage;

@Column(length = 9000)

private String story;

private String year;

private String duration;

private String caption;

@Column(name = "added\_on")

@Temporal(TemporalType.DATE)

private Date addedOn;

@Temporal(TemporalType.DATE)

private Date release;

private String language;

@ToString.Exclude

@EqualsAndHashCode.Exclude

@ElementCollection

@CollectionTable(name = "movie\_genres", joinColumns = @JoinColumn(name = "movie\_id"))

@Column(name = "genre")

private List<String> genres;

@ToString.Exclude

@EqualsAndHashCode.Exclude

@OneToMany(targetEntity = ActorEntity.class, cascade = CascadeType.ALL)

@JoinColumn(name = "movie\_id", referencedColumnName = "id")

private List<ActorEntity> casts;

@ToString.Exclude

@EqualsAndHashCode.Exclude

@OneToMany(targetEntity = ActorEntity.class, cascade = CascadeType.ALL)

@JoinColumn(name = "movie\_id", referencedColumnName = "id")

private List<ActorEntity> crews;

public MovieEntity(String name, String image, String bgImage, String story, String year,

String duration, String caption, Date addedOn, Date release, String language,

List<String> genres, List<ActorEntity> casts, List<ActorEntity> crews) {

this.name = name;

this.image = image;

this.bgImage = bgImage;

this.story = story;

this.year = year;

this.duration = duration;

this.caption = caption;

this.addedOn = addedOn;

this.release = release;

this.language = language;

this.genres = genres;

this.casts = casts;

this.crews = crews;

}

public MovieEntity setId(int id) {

this.id = id;

return this;

}

public MovieEntity setName(String name) {

this.name = name;

return this;

}

public MovieEntity setImage(String image) {

this.image = image;

return this;

}

public MovieEntity setBgImage(String bgImage) {

this.bgImage = bgImage;

return this;

}

public MovieEntity setStory(String story) {

this.story = story;

return this;

}

public MovieEntity setYear(String year) {

this.year = year;

return this;

}

public MovieEntity setDuration(String duration) {

this.duration = duration;

return this;

}

public MovieEntity setCaption(String caption) {

this.caption = caption;

return this;

}

public MovieEntity setAddedOn(Date addedOn) {

this.addedOn = addedOn;

return this;

}

public MovieEntity setRelease(Date release) {

this.release = release;

return this;

}

public MovieEntity setLanguages(String language) {

this.language = language;

return this;

}

public MovieEntity setGenres(List<String> genres) {

this.genres = genres;

return this;

}

public MovieEntity setCasts(List<ActorEntity> casts) {

this.casts = casts;

return this;

}

public MovieEntity setCrews(List<ActorEntity> crews) {

this.crews = crews;

return this;

}

}

**Movie Show:**

package com.MyMoviePlan.entity;

import com.fasterxml.jackson.annotation.JsonIgnore;

import lombok.\*;

import javax.persistence.\*;

import java.io.Serializable;

import java.util.Date;

import java.util.List;

@Entity

@Data

@AllArgsConstructor

@NoArgsConstructor

@EqualsAndHashCode

@Table(name = "movie\_shows")

public class MovieShowsEntity implements Serializable {

@Id

@GeneratedValue(strategy = GenerationType.IDENTITY)

private int id;

@Temporal(TemporalType.DATE)

@Column(name = "show\_start")

private Date start;

@Temporal(TemporalType.DATE)

@Column(name = "show\_end")

private Date end;

@Column(name = "movie\_id")

private int movieId;

@JsonIgnore

@ToString.Exclude

@EqualsAndHashCode.Exclude

@ManyToOne(targetEntity = ShowEntity.class)

private ShowEntity show;

@ToString.Exclude

@EqualsAndHashCode.Exclude

@JoinColumn(name = "movie\_show\_id", referencedColumnName = "id")

@OneToMany(targetEntity = BookingEntity.class, cascade = CascadeType.ALL)

// @JoinTable(name = "movie\_show\_bookings",

// joinColumns = @JoinColumn(name = "movie\_show\_id", unique = false),

// inverseJoinColumns = @JoinColumn(name = "booking\_id", unique = false))

private List<BookingEntity> bookings;

@ToString.Exclude

@EqualsAndHashCode.Exclude

@OneToOne(targetEntity = PriceEntity.class, cascade = CascadeType.ALL)

@JoinColumn(name = "price\_id")

private PriceEntity price;

public MovieShowsEntity(int id, Date start, Date end, List<BookingEntity> bookings, int movieId) {

this.id = id;

this.start = start;

this.end = end;

this.bookings = bookings;

this.movieId = movieId;

}

public MovieShowsEntity setId(int id) {

this.id = id;

return this;

}

public MovieShowsEntity setStart(Date start) {

this.start = start;

return this;

}

public MovieShowsEntity setEnd(Date end) {

this.end = end;

return this;

}

public MovieShowsEntity setShow(ShowEntity show) {

this.show = show;

return this;

}

public MovieShowsEntity setMovieId(int movieId) {

this.movieId = movieId;

return this;

}

}

**Payment:**

package com.MyMoviePlan.entity;

import lombok.AllArgsConstructor;

import lombok.Data;

import lombok.EqualsAndHashCode;

import lombok.NoArgsConstructor;

import javax.persistence.\*;

import java.io.Serializable;

import java.util.Date;

@Entity

@Data

@AllArgsConstructor

@NoArgsConstructor

@EqualsAndHashCode

@Table(name = "payments")

public class PaymentEntity implements Serializable {

@Id

@GeneratedValue(strategy = GenerationType.IDENTITY)

private int id;

private double amount;

@Column(name = "payment\_date")

@Temporal(TemporalType.DATE)

private Date paymentDate;

@Column(name = "card\_number", length = 20)

private String cardNumber;

@Column(name = "card\_expiry\_month", length = 5)

private String cardExpiryMonth;

@Column(name = "card\_expiry\_year", length = 5)

private String cardExpiryYear;

@Column(name = "card\_cvv", length = 5)

private String cardCVV;

public PaymentEntity(double amount, Date paymentDate, String cardNumber, String cardExpiryMonth,

String cardExpiryYear, String cardCVV) {

this.amount = amount;

this.paymentDate = paymentDate;

this.cardNumber = cardNumber;

this.cardExpiryMonth = cardExpiryMonth;

this.cardExpiryYear = cardExpiryYear;

this.cardCVV = cardCVV;

}

public PaymentEntity setId(int id) {

this.id = id;

return this;

}

public PaymentEntity setAmount(double amount) {

this.amount = amount;

return this;

}

public PaymentEntity setPaymentDate(Date paymentDate) {

this.paymentDate = paymentDate;

return this;

}

public PaymentEntity setCardNumber(String cardNumber) {

this.cardNumber = cardNumber;

return this;

}

public PaymentEntity setCardExpiryMonth(String cardExpiryMonth) {

this.cardExpiryMonth = cardExpiryMonth;

return this;

}

public PaymentEntity setCardExpiryYear(String cardExpiryYear) {

this.cardExpiryYear = cardExpiryYear;

return this;

}

public PaymentEntity setCardCVV(String cardCVV) {

this.cardCVV = cardCVV;

return this;

}

}

**Price:**

package com.MyMoviePlan.entity;

import lombok.AllArgsConstructor;

import lombok.Data;

import lombok.EqualsAndHashCode;

import lombok.NoArgsConstructor;

import javax.persistence.\*;

import java.io.Serializable;

@Entity

@Data

@AllArgsConstructor

@NoArgsConstructor

@EqualsAndHashCode

@Table(name = "prices")

public class PriceEntity implements Serializable {

@Id

@GeneratedValue(strategy = GenerationType.IDENTITY)

private int id;

private double general;

private double silver;

private double gold;

public PriceEntity(double general, double silver, double gold) {

this.general = general;

this.silver = silver;

this.gold = gold;

}

}

**Show:**

package com.MyMoviePlan.entity;

import com.fasterxml.jackson.annotation.JsonIgnore;

import lombok.\*;

import javax.persistence.\*;

import java.io.Serializable;

import java.util.List;

@Entity

@Data

@AllArgsConstructor

@NoArgsConstructor

@EqualsAndHashCode

@Table(name = "shows")

public class ShowEntity implements Serializable {

@Id

@GeneratedValue(strategy = GenerationType.IDENTITY)

private int id;

private String name;

@Column(name = "start\_time")

private String startTime;

@JsonIgnore

@ToString.Exclude

@EqualsAndHashCode.Exclude

@ManyToOne(targetEntity = AuditoriumEntity.class)

private AuditoriumEntity auditorium;

// @JsonManagedReference

@ToString.Exclude

@EqualsAndHashCode.Exclude

@OneToMany(targetEntity = MovieShowsEntity.class, cascade = CascadeType.ALL)

@JoinColumn(name = "show\_id", referencedColumnName = "id")

private List<MovieShowsEntity> movieShows;

public ShowEntity(String name, String startTime, List<MovieShowsEntity> movieShows) {

this.name = name;

this.startTime = startTime;

this.movieShows = movieShows;

}

public ShowEntity setId(int id) {

this.id = id;

return this;

}

public ShowEntity setName(String name) {

this.name = name;

return this;

}

public ShowEntity setStartTime(String startTime) {

this.startTime = startTime;

return this;

}

public ShowEntity setAuditorium(AuditoriumEntity auditorium) {

this.auditorium = auditorium;

return this;

}

public ShowEntity setMovieShows(List<MovieShowsEntity> movieShows) {

this.movieShows = movieShows;

return this;

}

}

**User:**

package com.MyMoviePlan.entity;

import com.MyMoviePlan.model.UserRole;

import lombok.AllArgsConstructor;

import lombok.Data;

import lombok.EqualsAndHashCode;

import lombok.NoArgsConstructor;

import org.hibernate.annotations.GenericGenerator;

import javax.persistence.\*;

import java.io.Serializable;

@Entity

@Data

@AllArgsConstructor

@NoArgsConstructor

@EqualsAndHashCode

@Table(name = "users")

public class UserEntity implements Serializable {

@Id

@GeneratedValue(strategy = GenerationType.IDENTITY, generator = "uuid2")

@GenericGenerator(name = "uuid2", strategy = "uuid2")

private String id;

@Column(length = 50)

private String name;

@Column(nullable = false, length = 50, unique = true)

private String email;

@Column(nullable = false, length = 10, unique = true)

private String mobile;

@Column(length = 60)

private String gender;

private String password;

private Boolean terms;

@Column(name = "is\_account\_non\_expired")

private Boolean isAccountNonExpired;

@Column(name = "is\_account\_non\_locked")

private Boolean isAccountNonLocked;

@Column(name = "is\_credentials\_non\_expired")

private Boolean isCredentialsNonExpired;

@Column(name = "is\_enabled")

private Boolean isEnabled;

@Column(name = "user\_role", length = 20)

@Enumerated(EnumType.STRING)

private UserRole userRole;

public UserEntity(String name, String email, String mobile, String gender, String password, Boolean terms,

Boolean isAccountNonExpired, Boolean isAccountNonLocked,

Boolean isCredentialsNonExpired, Boolean isEnabled, UserRole userRole) {

this.name = name;

this.email = email;

this.mobile = mobile;

this.gender = gender;

this.password = password;

this.terms = terms;

this.isAccountNonExpired = isAccountNonExpired;

this.isAccountNonLocked = isAccountNonLocked;

this.isCredentialsNonExpired = isCredentialsNonExpired;

this.isEnabled = isEnabled;

this.userRole = userRole;

}

public UserEntity setId(String id) {

this.id = id;

return this;

}

public UserEntity setName(String name) {

this.name = name;

return this;

}

public UserEntity setEmail(String email) {

this.email = email;

return this;

}

public UserEntity setMobile(String mobile) {

this.mobile = mobile;

return this;

}

public UserEntity setGender(String gender) {

this.gender = gender;

return this;

}

public UserEntity setPassword(String password) {

this.password = password;

return this;

}

public UserEntity setActive(Boolean active) {

terms = active;

return this;

}

public UserEntity setAccountNonExpired(Boolean accountNonExpired) {

isAccountNonExpired = accountNonExpired;

return this;

}

public UserEntity setAccountNonLocked(Boolean accountNonLocked) {

isAccountNonLocked = accountNonLocked;

return this;

}

public UserEntity setCredentialsNonExpired(Boolean credentialsNonExpired) {

isCredentialsNonExpired = credentialsNonExpired;

return this;

}

public UserEntity setEnabled(Boolean enabled) {

isEnabled = enabled;

return this;

}

public UserEntity setUserRole(UserRole userRole) {

this.userRole = userRole;

return this;

}

public UserEntity setTerms(Boolean terms) {

this.terms = terms;

return this;

}

}

**EXCEPTION:**

**Auditorium NotFound:**

package com.MyMoviePlan.exception;

public class AuditoriumNotFoundException extends RuntimeException {

public AuditoriumNotFoundException(String message) {

super(message);

}

}

**Booking Notfound:**

package com.MyMoviePlan.exception;

public class BookingNotFoundException extends RuntimeException{

public BookingNotFoundException(String message) {

super(message);

}

}

**Global:**

package com.MyMoviePlan.exception;

import com.MyMoviePlan.model.HttpResponse;

import org.springframework.http.HttpStatus;

import org.springframework.http.ResponseEntity;

import org.springframework.web.bind.annotation.ControllerAdvice;

import org.springframework.web.bind.annotation.ExceptionHandler;

import org.springframework.web.servlet.mvc.method.annotation.ResponseEntityExceptionHandler;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

@ControllerAdvice

public class GlobalExceptionHandler extends ResponseEntityExceptionHandler {

@ExceptionHandler(Exception.class)

public ResponseEntity<HttpResponse> handleException(final Exception exception,

final HttpServletRequest request,

final HttpServletResponse response) {

Integer statusCode = (Integer) request

.getAttribute("javax.servlet.error.status\_code");

final int status = response.getStatus();

final String exceptionMessage = exception.getMessage();

if (statusCode == null || statusCode == 0) {

statusCode = status;

if (HttpStatus.valueOf(status).getReasonPhrase().equals("OK"))

statusCode = 403;

}

final HttpStatus httpStatus = HttpStatus.valueOf(statusCode);

final HttpResponse httpResponse =

new HttpResponse(statusCode, httpStatus.getReasonPhrase(), exceptionMessage);

return new ResponseEntity<HttpResponse>(httpResponse, httpStatus);

}

}

**Movie Notfound:**

package com.MyMoviePlan.exception;

public class MovieNotFoundException extends RuntimeException {

public MovieNotFoundException(String message) {

super(message);

}

}

**Movie Show Notfound:**

package com.MyMoviePlan.exception;

public class MovieShowNotFoundException extends RuntimeException {

public MovieShowNotFoundException(String message) {

super(message);

}

}

**Show Notfound:**

package com.MyMoviePlan.exception;

public class ShowNotFoundException extends RuntimeException{

public ShowNotFoundException(String message) {

super(message);

}

}

**Un Authorized:**

package com.MyMoviePlan.exception;

public class UnAuthorizedException extends RuntimeException{

public UnAuthorizedException(String message) {

super(message);

}

}

**User Notfound:**

package com.MyMoviePlan.exception;

public class UserNotFoundException extends RuntimeException {

public UserNotFoundException(String message) {

super(message);

}

}

**FILTER:**

**JWT Filter:**

package com.MyMoviePlan.filter;

import com.MyMoviePlan.model.HttpResponse;

import com.MyMoviePlan.security.ApplicationUserDetailsService;

import com.MyMoviePlan.util.JWTUtil;

import io.jsonwebtoken.JwtException;

import org.springframework.beans.factory.annotation.Autowired;

import org.springframework.http.HttpStatus;

import org.springframework.security.authentication.UsernamePasswordAuthenticationToken;

import org.springframework.security.core.context.SecurityContextHolder;

import org.springframework.security.core.userdetails.UserDetails;

import org.springframework.security.web.authentication.WebAuthenticationDetailsSource;

import org.springframework.stereotype.Component;

import org.springframework.web.filter.OncePerRequestFilter;

import javax.servlet.FilterChain;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import java.io.IOException;

@Component()

public class JWTFilter extends OncePerRequestFilter {

@Autowired

private JWTUtil jwtUtil;

@Autowired

private ApplicationUserDetailsService userDetailsService;

@Override

protected void doFilterInternal(HttpServletRequest request,

HttpServletResponse response,

FilterChain filterChain) throws ServletException, IOException {

try {

String authorization = request.getHeader("Authorization");

String token = null;

String userName = null;

if (authorization != null && authorization.startsWith("Bearer ")) {

token = authorization.substring(7);

userName = jwtUtil.getUsernameFromToken(token);

}

if (userName != null && SecurityContextHolder.getContext().getAuthentication() == null) {

UserDetails userDetails

= userDetailsService.loadUserByUsername(userName);

if (jwtUtil.validateToken(token, userDetails)) {

UsernamePasswordAuthenticationToken authenticationToken

= new UsernamePasswordAuthenticationToken(userDetails,

null, userDetails.getAuthorities());

authenticationToken.setDetails(

new WebAuthenticationDetailsSource().buildDetails(request)

);

SecurityContextHolder.getContext().setAuthentication(authenticationToken);

}

}

filterChain.doFilter(request, response);

} catch (JwtException exception) {

setErrorResponse(HttpStatus.NOT\_ACCEPTABLE, response, exception);

} catch (Exception exception) {

setErrorResponse(HttpStatus.INTERNAL\_SERVER\_ERROR, response, exception);

}

}

private void setErrorResponse(HttpStatus status, HttpServletResponse response, Exception exception) {

response.setStatus(status.value());

response.setContentType("application/json");

final HttpResponse httpResponse =

new HttpResponse(status.value(),

HttpStatus.valueOf(status.value()).getReasonPhrase(),

exception.getMessage());

try {

final String json = httpResponse.covertToJson();

response.getWriter().write(json);

} catch (IOException e) {

e.printStackTrace();

}

}

}

**MODEL:**

**Booked Seats:**

package com.MyMoviePlan.model;

import lombok.AllArgsConstructor;

import lombok.Data;

import lombok.NoArgsConstructor;

import java.util.List;

@Data

@AllArgsConstructor

@NoArgsConstructor

public class BookedSeats {

private int count;

private List<String> seats;

}

**Credentials:**

package com.MyMoviePlan.model;

import lombok.AllArgsConstructor;

import lombok.Data;

import lombok.NoArgsConstructor;

@Data

@AllArgsConstructor

@NoArgsConstructor

public class Credentials {

private String username;

private String password;

}

**HTTP Response:**

package com.MyMoviePlan.model;

import com.fasterxml.jackson.core.JsonProcessingException;

import com.fasterxml.jackson.databind.ObjectMapper;

import com.fasterxml.jackson.databind.SerializationFeature;

import com.fasterxml.jackson.datatype.jsr310.JavaTimeModule;

import lombok.AllArgsConstructor;

import lombok.Data;

import lombok.NoArgsConstructor;

@Data

@AllArgsConstructor

@NoArgsConstructor

public class HttpResponse {

private int statusCode; // 200, 201, 404

private String error; // OK, CREATED

private String message;

public String covertToJson() throws JsonProcessingException {

if (this == null)

return null;

ObjectMapper mapper = new ObjectMapper();

mapper.registerModule(new JavaTimeModule());

mapper.disable(SerializationFeature.WRITE\_DATES\_AS\_TIMESTAMPS);

return mapper.writeValueAsString(this);

}

}

**Ticket Details:**

package com.MyMoviePlan.model;

import lombok.AllArgsConstructor;

import lombok.NoArgsConstructor;

@AllArgsConstructor

@NoArgsConstructor

public class TicketDetails {

private String auditoriumName;

private String showName;

private String showTiming;

private double amount;

private String movieName;

private String movieImage;

private String movieBgImage;

}

**Token:**

package com.MyMoviePlan.model;

import lombok.AllArgsConstructor;

import lombok.Data;

import lombok.NoArgsConstructor;

@Data

@AllArgsConstructor

@NoArgsConstructor

public class Token {

private String token;

}

**UserPermisions:**

package com.MyMoviePlan.model;

import lombok.AllArgsConstructor;

import lombok.Getter;

@Getter

@AllArgsConstructor

public enum UserPermission {

READ,

WRITE,

UPDATE,

DELETE

}

**User Role:**

package com.MyMoviePlan.model;

import lombok.AllArgsConstructor;

import lombok.Getter;

import java.util.Arrays;

import java.util.List;

import static com.MyMoviePlan.model.UserPermission.\*;

@Getter

@AllArgsConstructor

public enum UserRole {

ROLE\_USER(Arrays.asList(READ)),

ROLE\_MANAGER(Arrays.asList(READ, WRITE)),

ROLE\_ADMIN(Arrays.asList(READ, WRITE, UPDATE)),

ROLE\_SUPER\_ADMIN(Arrays.asList(READ, WRITE, UPDATE, DELETE));

private final List<UserPermission> permissions;

}

**REPOSITORY:**

**Actor:**

package com.MyMoviePlan.repository;

import com.MyMoviePlan.entity.ActorEntity;

import org.springframework.data.jpa.repository.JpaRepository;

import org.springframework.stereotype.Repository;

@Repository

public interface ActorRepository extends JpaRepository<ActorEntity, Integer> {

}

**Auditorium:**

package com.MyMoviePlan.repository;

import com.MyMoviePlan.entity.AuditoriumEntity;

import org.springframework.data.jpa.repository.JpaRepository;

import org.springframework.stereotype.Repository;

@Repository

public interface AuditoriumRepository extends JpaRepository<AuditoriumEntity, Integer> {

}

**Booking Repository:**

package com.MyMoviePlan.repository;

import com.MyMoviePlan.entity.BookingEntity;

import org.springframework.data.jpa.repository.JpaRepository;

import org.springframework.stereotype.Repository;

import java.util.List;

@Repository

public interface BookingRepository extends JpaRepository<BookingEntity, Integer> {

List<BookingEntity> findAllByUserIdOrderByBookedOnAsc(final String userId);

}

**Movie:**

package com.MyMoviePlan.repository;

import com.MyMoviePlan.entity.MovieEntity;

import org.springframework.data.jpa.repository.JpaRepository;

import org.springframework.stereotype.Repository;

@Repository

public interface MovieRepository extends JpaRepository<MovieEntity, Integer> {

}

**MovieShow:**

package com.MyMoviePlan.repository;

import com.MyMoviePlan.entity.MovieShowsEntity;

import org.springframework.data.jpa.repository.JpaRepository;

import org.springframework.data.jpa.repository.Query;

import org.springframework.data.repository.query.Param;

import org.springframework.stereotype.Repository;

import java.util.List;

@Repository

public interface MovieShowsRepository extends JpaRepository<MovieShowsEntity, Integer> {

// https://docs.spring.io/spring-data/commons/docs/current/reference/html/#repositories.limit-query-result

// https://stackoverflow.com/questions/11401229/how-to-use-select-distinct-with-random-function-in-postgresql

// https://stackoverflow.com/questions/32079084/how-to-find-distinct-rows-with-field-in-list-using-jpa-and-spring

// https://dev.to/golovpavel/make-a-request-with-sub-condition-for-child-list-via-spring-data-jpa-4inn

// https://docs.spring.io/spring-data/jpa/docs/current/reference/html/#jpa.query-methods.query-creation

// @Query(value = "SELECT DISTINCT ON(movie\_id) \* FROM movie\_shows WHERE start >= CURRENT\_DATE", nativeQuery = true)

@Query(value = "SELECT DISTINCT ON(ms.movie\_id) \* FROM movie\_shows ms WHERE ms.show\_start > CURRENT\_DATE", nativeQuery = true)

List<MovieShowsEntity> findAllUpComing();

@Query(value = "SELECT DISTINCT ON(ms.movie\_id) \* FROM movie\_shows ms WHERE ms.show\_start <= CURRENT\_DATE AND ms.show\_end >= CURRENT\_DATE", nativeQuery = true)

List<MovieShowsEntity> findAllNowPlaying();

@Query(value = "SELECT DISTINCT ON(ms.movie\_id) \* FROM movie\_shows ms WHERE ms.show\_end >= CURRENT\_DATE", nativeQuery = true)

List<MovieShowsEntity> findAllNowPlayingAndUpComing();

@Query(value = "SELECT DISTINCT ON(ms.movie\_id) \* FROM movie\_shows ms WHERE ms.show\_end < CURRENT\_DATE", nativeQuery = true)

List<MovieShowsEntity> findAllNotPlaying();

// @Query("FROM MovieShowsEntity ms LEFT JOIN ms.bookings b WHERE ms.id = ?1 AND b.dateOfBooking = ?2")

// @Query(value = "SELECT \* FROM movie\_shows ms INNER JOIN bookings b ON ms.id = :id and b.date\_of\_booking = ':dateOfBooking'", nativeQuery = true)

// Optional<MovieShowsEntity> findByIdAndDateOfBooking(@Param("id") final int id, @Param("dateOfBooking") final String dateOfBooking);

// SELECT \* FROM (SELECT DISTINCT movie\_id FROM movie\_shows WHERE start > CURRENT\_DATE) ms ORDER BY random() LIMIT :records

@Query(value = "SELECT DISTINCT ON(ms.movie\_id) \* FROM movie\_shows ms WHERE ms.show\_start > CURRENT\_DATE LIMIT :records", nativeQuery = true)

List<MovieShowsEntity> findFewUpComing(@Param("records") final int records);

@Query(value = "SELECT DISTINCT ON(ms.movie\_id) \* FROM movie\_shows ms WHERE ms.show\_start <= CURRENT\_DATE AND ms.show\_end >= CURRENT\_DATE LIMIT :records", nativeQuery = true)

List<MovieShowsEntity> findFewNowPlaying(@Param("records") final int records);

// @Query(value = "SELECT ms.id, ms.show\_end, ms.movie\_id, ms.show\_start, ms.show\_id, ms.price\_id FROM movie\_shows ms INNER JOIN bookings b ON b.id = :bookingId", nativeQuery = true)

// MovieShowsEntity findByBookingId(@Param("bookingId") final int bookingId);

}

**Payment:**

package com.MyMoviePlan.repository;

import com.MyMoviePlan.entity.PaymentEntity;

import org.springframework.data.jpa.repository.JpaRepository;

import org.springframework.stereotype.Repository;

@Repository

public interface PaymentRepository extends JpaRepository<PaymentEntity, Integer> {

}

**Price:**

package com.MyMoviePlan.repository;

import com.MyMoviePlan.entity.PriceEntity;

import org.springframework.data.jpa.repository.JpaRepository;

import org.springframework.stereotype.Repository;

@Repository

public interface PriceRepository extends JpaRepository<PriceEntity, Integer> {

}

**Show:**

package com.MyMoviePlan.repository;

import com.MyMoviePlan.entity.ShowEntity;

import org.springframework.data.jpa.repository.JpaRepository;

import org.springframework.stereotype.Repository;

@Repository

public interface ShowRepository extends JpaRepository<ShowEntity, Integer> {

}

**User:**

package com.MyMoviePlan.repository;

import com.MyMoviePlan.entity.UserEntity;

import org.springframework.data.jpa.repository.JpaRepository;

import org.springframework.stereotype.Repository;

import java.util.Optional;

@Repository

public interface UserRepository extends JpaRepository<UserEntity, String> {

Optional<UserEntity> findByEmail(final String email);

Optional<UserEntity> findByMobile(final String mobile);

}

**SECURITY:**

**Application Security:**

package com.MyMoviePlan.security;

import com.MyMoviePlan.filter.JWTFilter;

import org.springframework.beans.factory.annotation.Autowired;

import org.springframework.context.annotation.Bean;

import org.springframework.context.annotation.Configuration;

import org.springframework.http.HttpMethod;

import org.springframework.security.authentication.AuthenticationManager;

import org.springframework.security.authentication.dao.DaoAuthenticationProvider;

import org.springframework.security.config.annotation.authentication.builders.AuthenticationManagerBuilder;

import org.springframework.security.config.annotation.method.configuration.EnableGlobalMethodSecurity;

import org.springframework.security.config.annotation.web.builders.HttpSecurity;

import org.springframework.security.config.annotation.web.builders.WebSecurity;

import org.springframework.security.config.annotation.web.configuration.EnableWebSecurity;

import org.springframework.security.config.annotation.web.configuration.WebSecurityConfigurerAdapter;

import org.springframework.security.config.http.SessionCreationPolicy;

import org.springframework.security.crypto.password.PasswordEncoder;

import org.springframework.security.web.authentication.UsernamePasswordAuthenticationFilter;

import org.springframework.web.cors.CorsConfiguration;

import org.springframework.web.cors.CorsConfigurationSource;

import org.springframework.web.cors.UrlBasedCorsConfigurationSource;

import java.util.Arrays;

@Configuration

@EnableWebSecurity

@EnableGlobalMethodSecurity(prePostEnabled = true)

public class ApplicationSecurity extends WebSecurityConfigurerAdapter {

@Autowired

private ApplicationUserDetailsService userDetailsService;

@Autowired

private PasswordEncoder passwordEncoder;

@Autowired

private JWTFilter jwtFilter;

@Override

protected void configure(HttpSecurity http) throws Exception {

http.headers().frameOptions().sameOrigin();

http.csrf().disable().cors().disable()

.cors().configurationSource(corsConfigurationSource())

.and()

.authorizeRequests()

.antMatchers(HttpMethod.OPTIONS, "/\*\*")

.permitAll()

.anyRequest()

.fullyAuthenticated()

.and()

.httpBasic()

.and()

.sessionManagement()

.sessionCreationPolicy(SessionCreationPolicy.STATELESS);

http.addFilterBefore(jwtFilter, UsernamePasswordAuthenticationFilter.class);

}

// .antMatchers(HttpMethod.POST, "/user/authenticate", "/user/sign-up")

// .permitAll()

// .antMatchers(HttpMethod.PUT, "/user/forgot-password")

// .permitAll()

// .antMatchers(HttpMethod.GET, "/auditorium/\*\*", "/movie/\*\*", "/show/\*\*", "/user/check/\*\*")

// .permitAll()

@Override

public void configure(WebSecurity web) throws Exception {

web.ignoring()

.antMatchers("/h2-console/\*\*", "/auditorium/\*\*", "/movie/\*\*", "/show/\*\*", "/user/\*\*",

"/user/forgot-password", "/user/authenticate", "/movie-show/\*\*",

"/booking/\*\*", "/logout");

}

@Override

protected void configure(AuthenticationManagerBuilder auth) throws Exception {

auth.authenticationProvider(authenticationProvider());

}

@Bean

public DaoAuthenticationProvider authenticationProvider() {

DaoAuthenticationProvider authenticationProvider = new DaoAuthenticationProvider();

authenticationProvider.setPasswordEncoder(passwordEncoder);

authenticationProvider.setUserDetailsService(userDetailsService);

return authenticationProvider;

}

@Bean

CorsConfigurationSource corsConfigurationSource() {

CorsConfiguration configuration = new CorsConfiguration();

configuration.setAllowedOrigins(Arrays.asList("\*"));

configuration.setAllowedMethods(Arrays.asList("GET", "POST", "PUT", "PATCH", "DELETE", "OPTIONS"));

configuration.setAllowCredentials(true);

//the below three lines will add the relevant CORS response headers

configuration.addAllowedOrigin("\*");

configuration.addAllowedHeader("\*");

configuration.addAllowedMethod("\*");

UrlBasedCorsConfigurationSource source = new UrlBasedCorsConfigurationSource();

source.registerCorsConfiguration("/\*\*", configuration);

return source;

}

@Override

@Bean

protected AuthenticationManager authenticationManager() throws Exception {

return super.authenticationManager();

}

}

**Application User Details:**

package com.MyMoviePlan.security;

import com.MyMoviePlan.entity.UserEntity;

import lombok.AllArgsConstructor;

import org.springframework.security.core.GrantedAuthority;

import org.springframework.security.core.authority.SimpleGrantedAuthority;

import org.springframework.security.core.userdetails.UserDetails;

import java.util.Collection;

import java.util.List;

import java.util.stream.Collectors;

@AllArgsConstructor

public class ApplicationUserDetails implements UserDetails {

private final UserEntity user;

@Override

public Collection<? extends GrantedAuthority> getAuthorities() {

final List<SimpleGrantedAuthority> authorities = user.getUserRole()

.getPermissions()

.stream()

.map(permission -> new SimpleGrantedAuthority(permission.name()))

.collect(Collectors.toList());

authorities.add(new SimpleGrantedAuthority(user.getUserRole().name()));

return authorities;

}

@Override

public String getPassword() {

return user.getPassword();

}

@Override

public String getUsername() {

return user.getEmail();

}

@Override

public boolean isAccountNonExpired() {

return user.getIsAccountNonExpired();

}

@Override

public boolean isAccountNonLocked() {

return user.getIsAccountNonLocked();

}

@Override

public boolean isCredentialsNonExpired() {

return user.getIsCredentialsNonExpired();

}

@Override

public boolean isEnabled() {

return user.getIsEnabled();

}

}

**Application User Srvise:**

package com.MyMoviePlan.security;

import com.MyMoviePlan.entity.UserEntity;

import com.MyMoviePlan.exception.UserNotFoundException;

import com.MyMoviePlan.service.UserService;

import org.springframework.beans.factory.annotation.Autowired;

import org.springframework.security.core.userdetails.UserDetails;

import org.springframework.security.core.userdetails.UserDetailsService;

import org.springframework.security.core.userdetails.UsernameNotFoundException;

import org.springframework.stereotype.Service;

@Service

public class ApplicationUserDetailsService implements UserDetailsService {

@Autowired

private UserService service;

@Override

public UserDetails loadUserByUsername(final String username) throws UsernameNotFoundException {

final UserEntity userEntity = service.getUser(username);

return new ApplicationUserDetails(userEntity);

}

}

**SERVLETS UTILIZER:**

package com.MyMoviePlan;

import org.springframework.boot.builder.SpringApplicationBuilder;

import org.springframework.boot.web.servlet.support.SpringBootServletInitializer;

public class ServletInitializer extends SpringBootServletInitializer {

@Override

protected SpringApplicationBuilder configure(SpringApplicationBuilder application) {

return application.sources(MyMoviePlanApplication.class);

}

}

**TEST:**

**My Movie Application Test:**

package com.MyMoviePlan;

import org.junit.jupiter.api.Test;

import org.springframework.boot.test.context.SpringBootTest;

@SpringBootTest

class MyMoviePlanApplicationTests {

@Test

void contextLoads() {

}

}