Capstone Project:- Travel Management System

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AGENDA:-

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02 Tools used

03 Key Highlights

04 Challenges Faced

05 Demonstation

06 Conclusion and Feedback

INTRODUCTION:-

Travel Management System

- The Travel Management System is a full-stack application developed using Spring Boot, Angular, and MySQL. It allows administrators to efficiently manage trips, cabs, bookings, payments, and feedback with secure login, CRUD operations, search functionality, and admin registration.

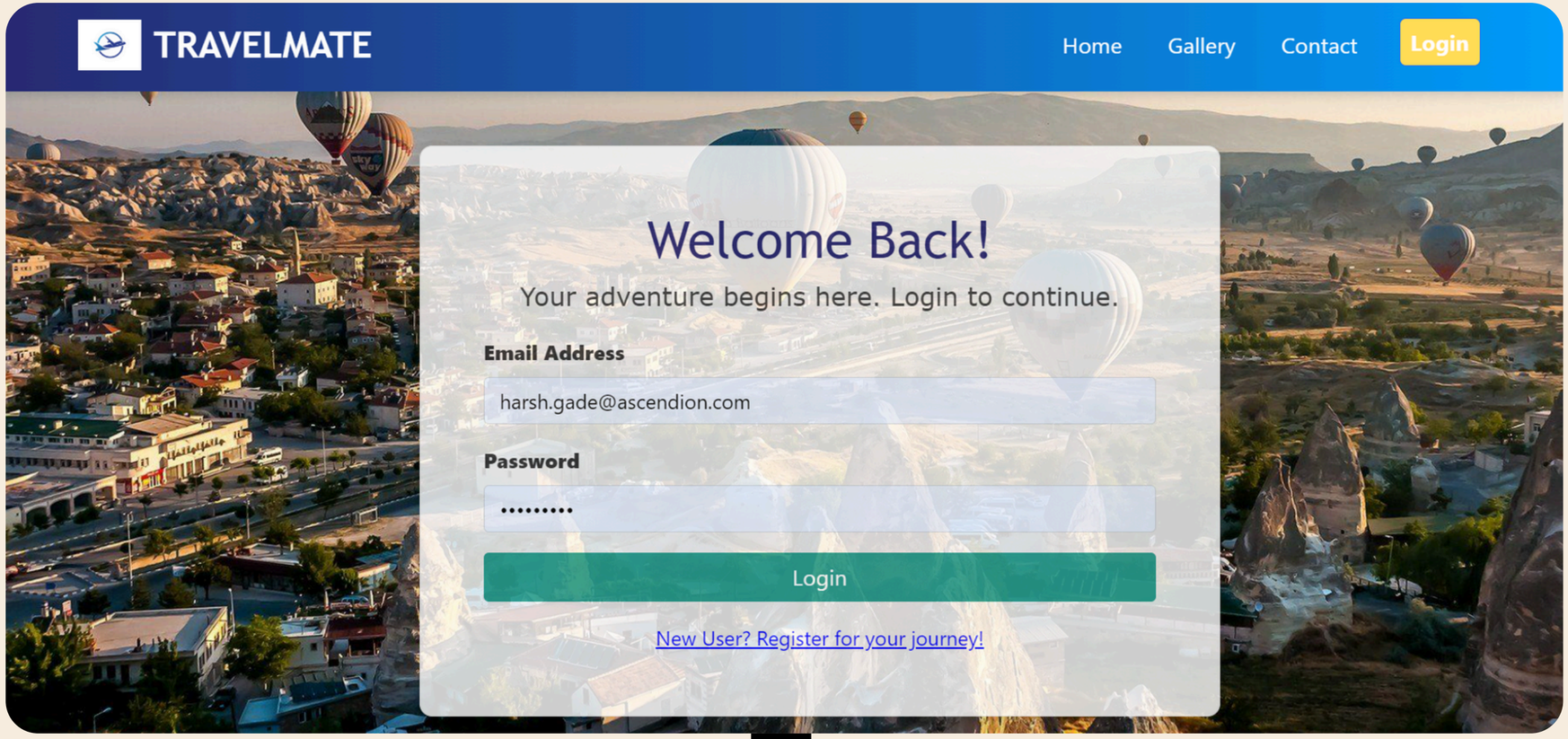
Tools used:-

- **Backend:** Spring Boot
- **Frontend:** Angular
- **Database:** MySQL
- **API Testing:** Postman
- **Version Control**: Git & GitHub
- **IDE:** IntelliJ IDEA / Visual Studio Code
- **Build Tool:** Maven
- **Design:**Bootstrap

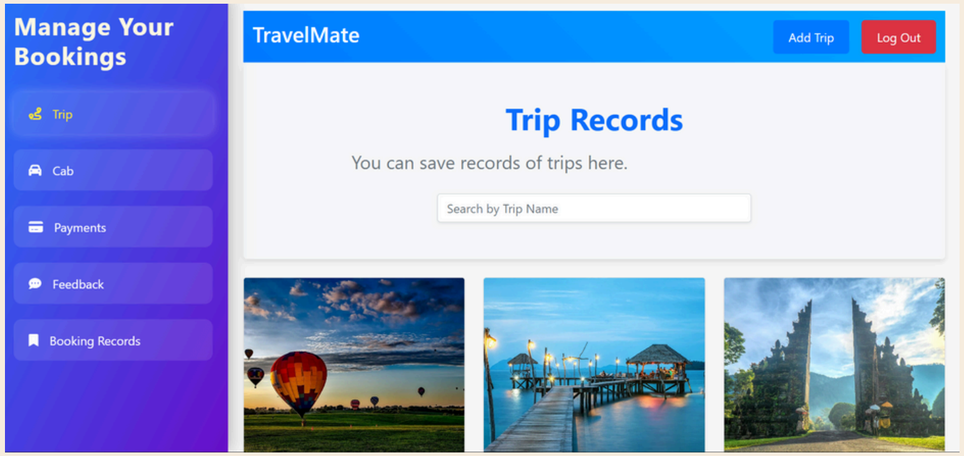
- <linkhref="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css"rel="stylesheet"integrity="sha384-1BmE4kWBq78iYhFldvKuhfTAU6auU8tT94WrHftjDbrCEXSU1oBoqyl2QvZ6jIW3" crossorigin="anonymous">
- <link href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.0.0-beta3/css/all.min.css" rel="stylesheet">

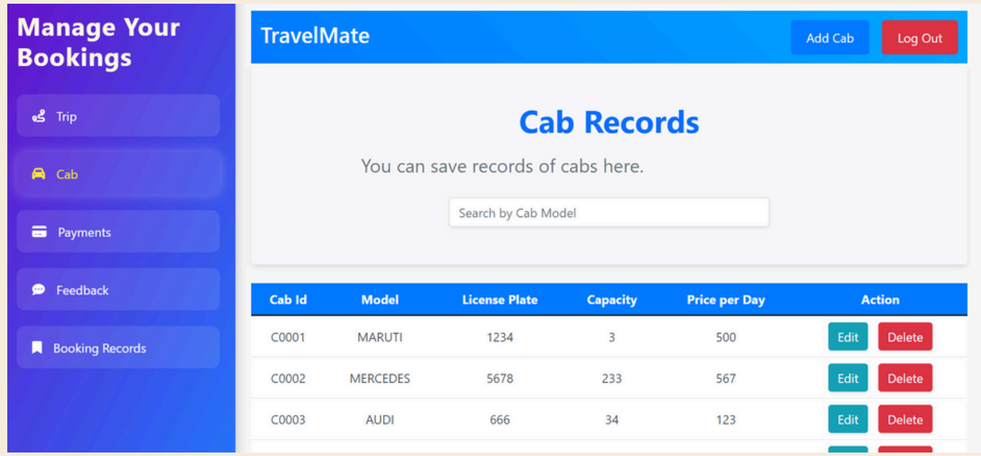
Architecture of project:-

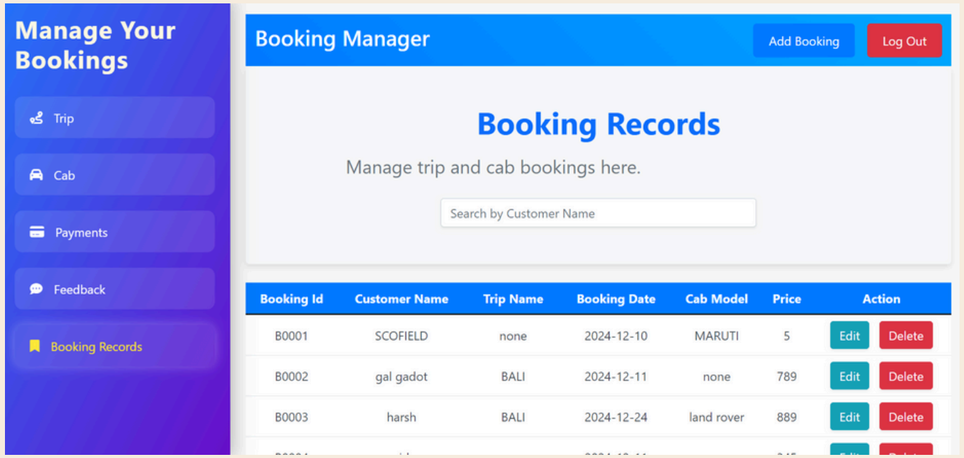
Login Page:-

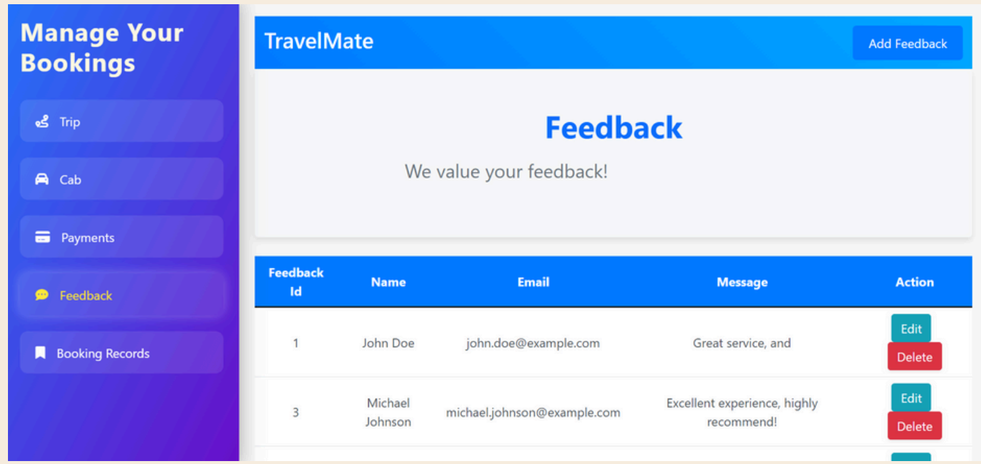


Dashboard:-


Manage Your Bookings
Trip
Cab
Payments
Feedback
Booking Records
TravelMate
Add Trip
Log Out
Trip Records
You can save records of trips here.
Search by Trip Name

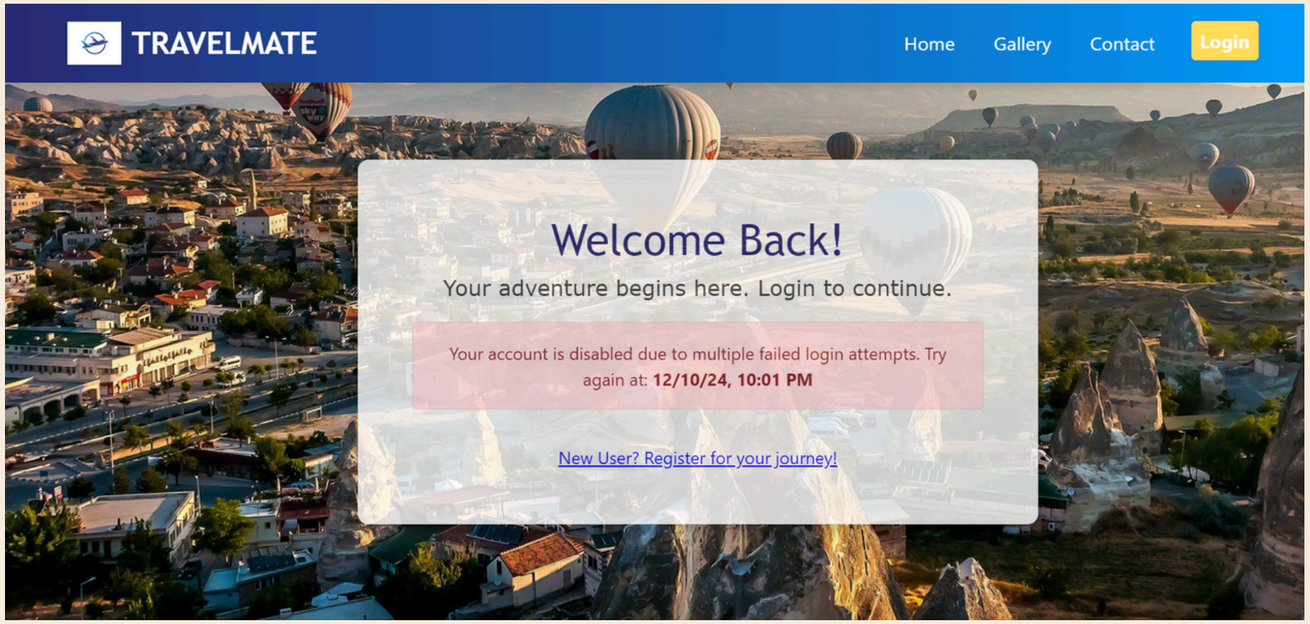

Manage Your Bookings
Trip
Cab
Payments
Feedback
Booking Records
TravelMate
Add Cab
Log Out
Cab Records
You can save records of cabs here.
Search by Cab Model
Cab Id
Model
License Plate
Capacity
Price per Day
Action
C0001 MARUTI 1234 3 500 Edit Delete
C0002 MERCEDES 5678 233 567 Edit Delete
C0003 AUDI 666 34 123 Edit Delete


Manage Your Bookings
Trip
Cab
Payments
Feedback
Booking Records
Booking Manager
Add Booking
Log Out
Booking Records
Manage trip and cab bookings here.
Search by Customer Name
Booking Id
Customer Name
Trip Name
Booking Date
Cab Model
Price
Action
B0001 SCOFIELD none 2024-12-10 MARUTI 5 Edit Delete
B0002 gal gadot BALI 2024-12-11 none 789 Edit Delete
B0003 harsh BALI 2024-12-24 land rover 889 Edit Delete


Manage Your Bookings
Trip
Cab
Payments
Feedback
Booking Records
TravelMate
Add Feedback
Feedback
We value your feedback!
Feedback Id
Name
Email
Message
Action
1 John Doe john.doe@example.com Great service, and Edit Delete
3 Michael Johnson michael.johnson@example.com Excellent experience, highly recommend! Edit Delete

KEY HIGHLIGHTS:–

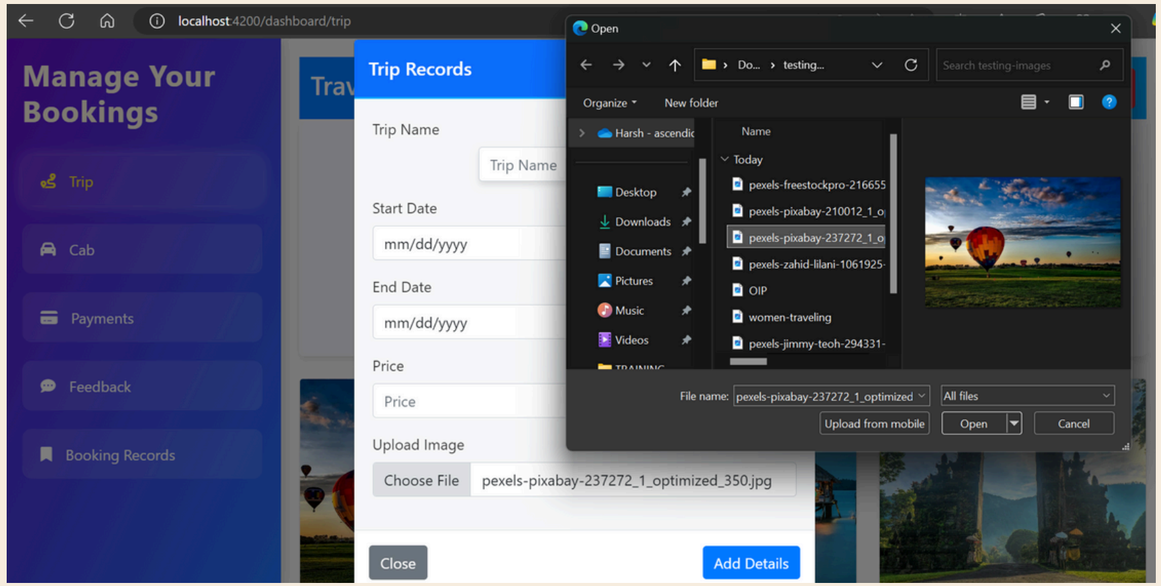
The account gets disabled for 30 minutes on three invalid login attempts



Disabled account

KEY HIGHLIGHTS:-

Uploading Image and Showing into the trip records:-

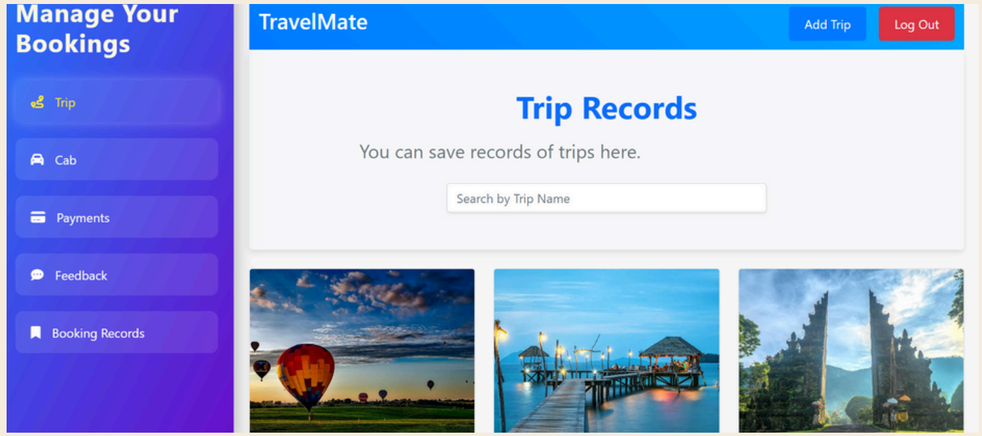



```
iv class="row row-cols-1 row-cols-md-2 row-cols-lg-3 g-4">
  <div *ngFor="let data of filteredTripData" class="col animate__animated animate__fadeIn">
    <div class="card shadow-sm h-100">
      <img [src]="'assets/images/' + data.image" class="card-img-top" alt="Trip Image" style="height: 250
      <div class="card-body">
        <h5 class="card-title text-primary">{{ data.name }}</h5>
        <p class="card-text"><strong>Trip Id:</strong> {{ data.id }}</p>
        <p class="card-text"><strong>Start Date:</strong> {{ data.startDate }}</p>
        <p class="card-text"><strong>End Date:</strong> {{ data.endDate }}</p>
        <p class="card-text"><strong>Price:</strong> ${{ data.price }}</p>
        <div class="d-flex justify-content-between">
          <button (click)="onEditTrip(data)" class="btn btn-info text-white shadow-sm" type="button"
            <i class="bi bi-pencil"></i> Edit
          </button>
```

```
1  export class TripData {
2    id: string ='';
3    name: string = '';
4    startDate: string = '';
5    endDate: string = '';
6    price: number = 0;
7    image: string = '';
8  }
9
```

KEY HIGHLIGHTS:-

Creating Children components for making Dashboard:-



DASH COMPONENT HTML FILE:-

```
<!-- Main Content -->
<div class="content">
  <router-outlet></router-outlet>
</div>
</div>
```

DASH COMPONENT TS FILE:-

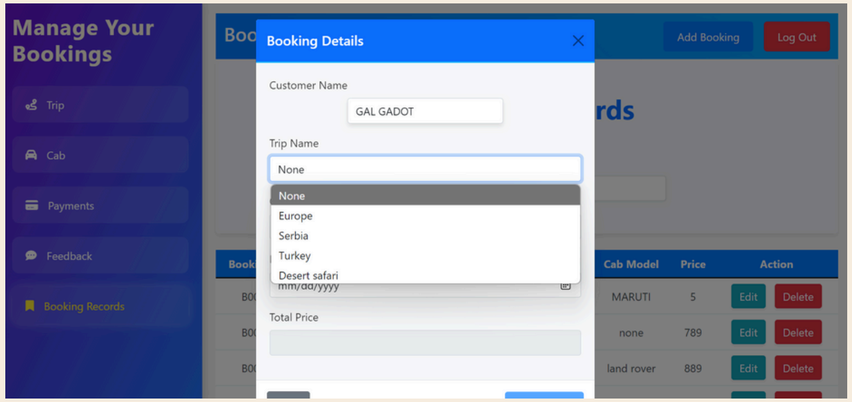
```
navigateTo(option: string): void {
  this.selectedMenu = option;
  this.router.navigate([`/dashboard/${option}`])
}
}
```

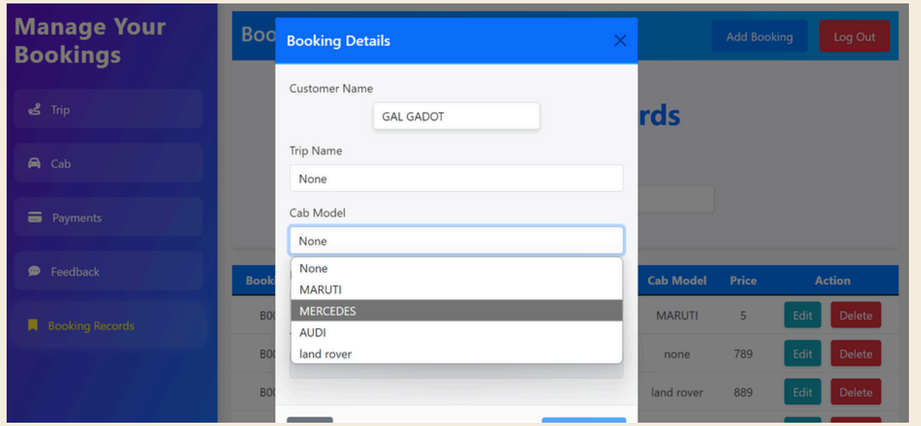
ROUTING FILE:-

```
{
  path: 'dashboard',
  component: BookingComponent,
  children: [
    { path: 'trip', component: TripComponent },
    { path: 'cab', component: CabComponent },
    { path: 'payments', component: PaymentsComponent },
    { path: 'feedback', component: FeedbackComponent },
    { path: 'bookingcombined',component:BookingCombinedComponent}
  ],
},
```

KEY HIGHLIGHTS:-

Connected two tables through api logic and showing entries of all available trips in trip name and cabs in cab table from trip and cab table in booking records:-





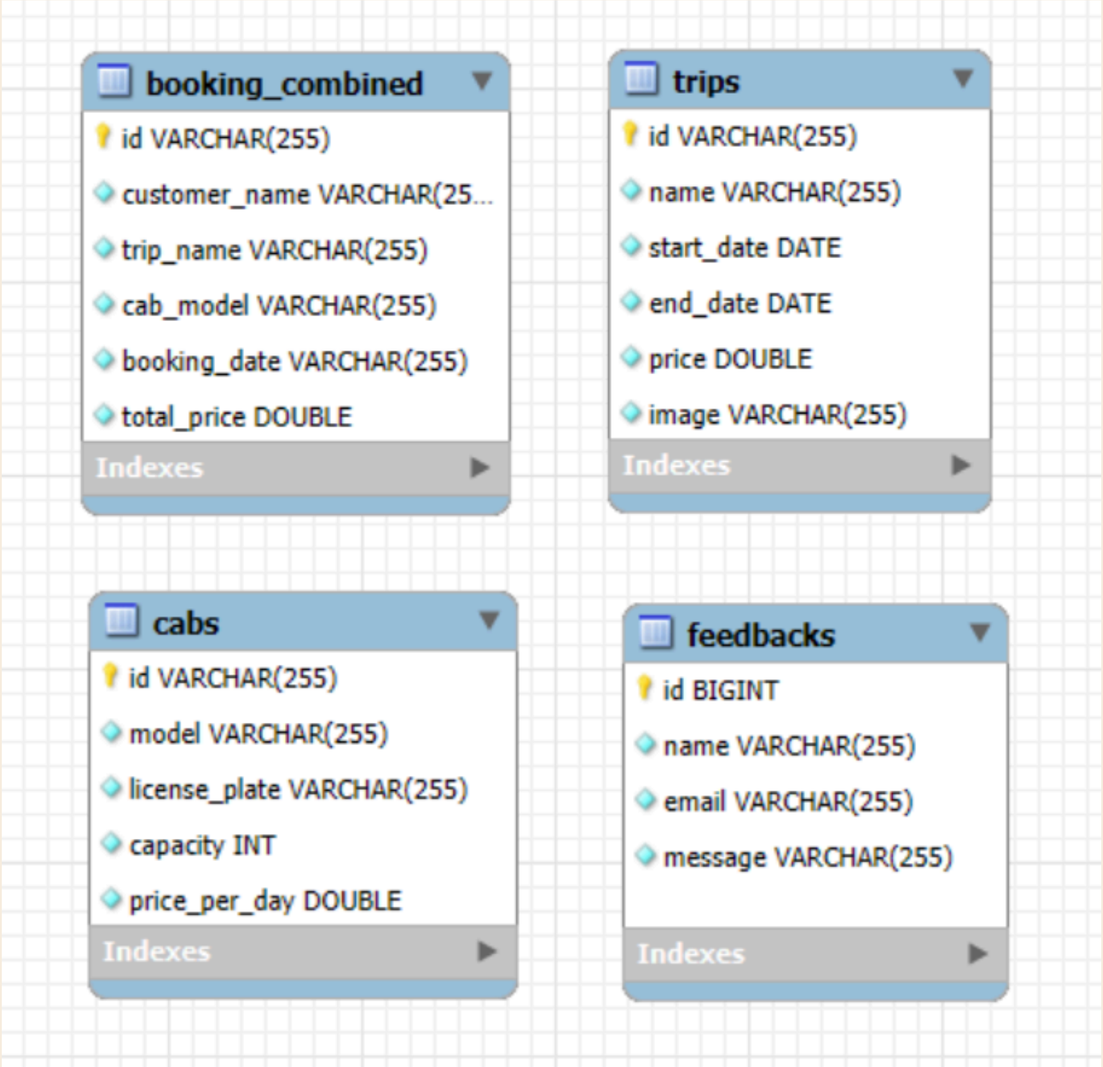
booking records service file:-

```
  getAvailableTrips(): Observable<any[]> {
    return this.http.get<any[]>('http://localhost:8080/api/v1/trips');
  }

  getAvailableCabs(): Observable<any[]> {
    return this.http.get<any[]>('http://localhost:8080/api/v1/cabs');
  }
}
```

ts file:-

```
getAvailableTrips() {
  this.api.getAvailableTrips().subscribe(res => {
    this.availableTrips = res;
  });
}

getAvailableCabs() {
  this.api.getAvailableCabs().subscribe(res => {
    this.availableCabs = res;
  });
}
```

ER Diagram:-


booking_combined
id VARCHAR(255)
customer_name VARCHAR(25...
trip_name VARCHAR(255)
cab_model VARCHAR(255)
booking_date VARCHAR(255)
total_price DOUBLE
Indexes
trips
id VARCHAR(255)
name VARCHAR(255)
start_date DATE
end_date DATE
price DOUBLE
image VARCHAR(255)
Indexes
cabs
id VARCHAR(255)
model VARCHAR(255)
license_plate VARCHAR(255)
capacity INT
price_per_day DOUBLE
Indexes
feedbacks
id BIGINT
name VARCHAR(255)
email VARCHAR(255)
message VARCHAR(255)
Indexes

Challenges Faced:-

- **Component Creation:**Developing and integrating child components.
- **Backend Connection:**Connecting Spring Boot APIs with Angular.
- **SQL Table Management:**Creating tables and managing relationships without foreign keys.
- **CSS Design:**Designing a responsive and consistent UI.
- **Account Timer:**Implementing account-disable timer logic.
- **Error Handling:**Debugging and fixing API issues.

CONCLUSION AND FEEDBACK:-

Mentors Support:-

- My mentor was very approachable and always willing to help.
- He provided clear explanations and examples when we struggled with concepts.

Learnings:-

- Enhanced skills in Angular, Spring Boot, SQL, and full-stack development.
- Gained practical knowledge of backend integration, relational databases, and advanced front-end design techniques.

Team Collaborations:-

- Demonstrated teamwork, task management, and effective communication.

Areas for Improvement:-

- Explore third-party libraries for enhanced UI components.
- Opportunities for adding new features, enhancing security, and improving system performance.

Thank You!