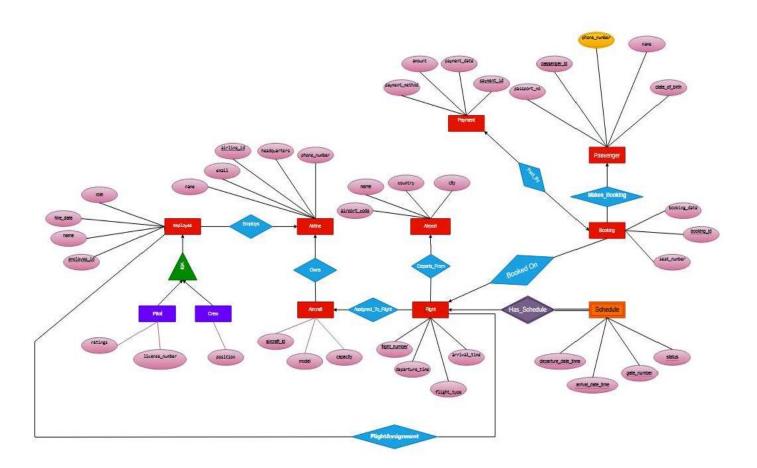
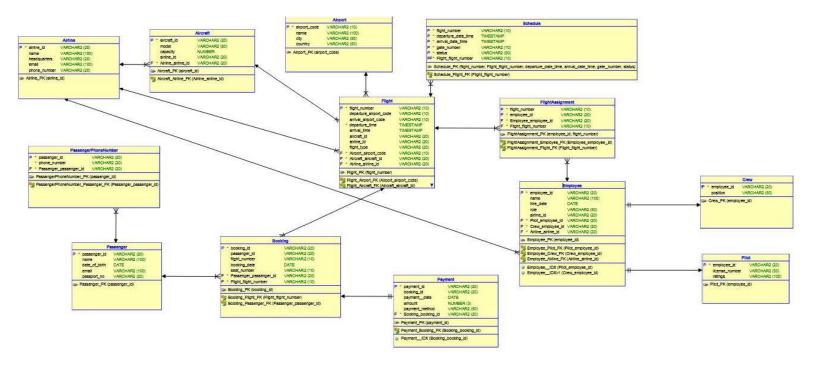
1. E-R Model of the Project



2. Schema Design of the Project



3. Implementation Checklist

Description	Remarks	
Project ID	18306	
Workspace Name	joybangla	
Workspace Email	2023-1-60-194@std.ewubd.edu	
Workspace Password	21161244	
Authentication Type Username and Password to Login	Custom	
Pranay	Pranay783	
Aniruddha	Aniruddha456	
Sohug	sohug00	
Number of Reports with Forms	14	
Number of Reports based on Queries, Aggregate Queries	16	
Included any trigger/other feature which is not	Yes, I included two custom triggers not taught in class.	
taught in class. If yes, please explain briefly.	One trigger prevents overbooking by checking flight capacity before inserting a booking. Another trigger validates that a passenger must be at least 2 years old.	
	These ensure data accuracy and enforce real-world	

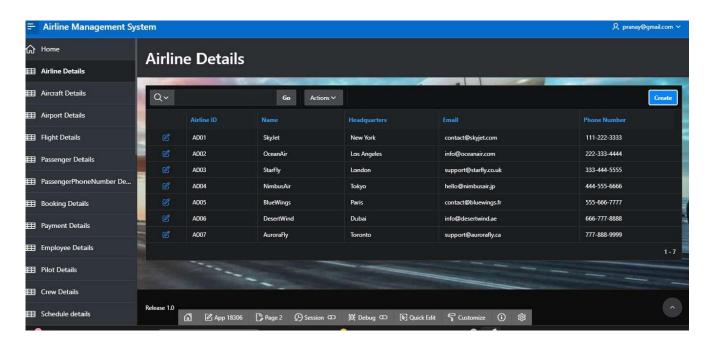
business rules. Write the most unique feature/functionality in The most unique functionality in my application is the your application or the page of your application automatic validation and booking restriction system that you are proud of. Explain briefly. using database triggers. It makes the application robust and smart. Additionally, I am also proud of my Flight with Full **Schedule** report page (Page 74), where I used: Multi-table joins to display flight, schedule, crew, and airline info in one place. Custom CSS styling to make the report transparent over a full-page background image. Dynamic filtering options to make data navigation easier for users. These features make the application not only technically sound but also visually appealing and user-friendly.

4. Reports with Forms

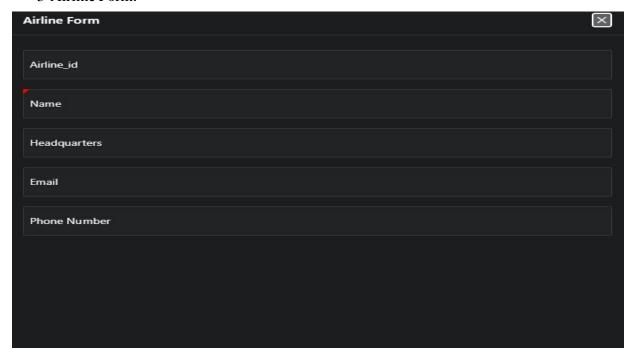
Report Page Number and Name	Form Page Number and	Table
	Name	
write your report page number and	write your form page number	write the name of the table for which
name here	and name here	pages are created
2 - Airline Details	3 - Airline Form	AIRLINE
8 - Aircraft Details	9 - Aircraft Form	AIRCRAFT
10 - USER	11 - USER	AIRLINE_USER
12 - Airport Details	13 - Airport Form	AIRPORT
18 - Flight Details	19 - Flight Form	FLIGHT
20 - Passenger Details	21 - Passenger Form	PASSENGER
22 - PassengerPhoneNumber	23-	PASSENGERPHONENUMBER
Report	PassengerPhoneNumber	
	Form	
24 - Booking Details	25 - Booking Form	BOOKING
28 - Payment Details	29 - Payment Form	PAYMENT
30 - Employee Details	31 - Employee Form	EMPLOYEE
34 - Pilot Details	35 - Pilot Form	PILOT
36 - Crew Details	37 - Crew Form	CREW
44 - FlightAssignment Details	45 - FlightAssignment	FLIGHTASSIGNMENT
	Form	
40 - Schedule Details	41 - Schedule Form	SCHEDULE

Attach screenshots of each **report and form page**:

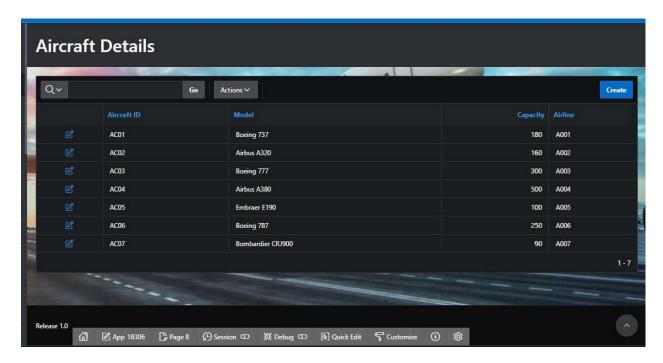
2- Airline Details:



3-Airline Form:



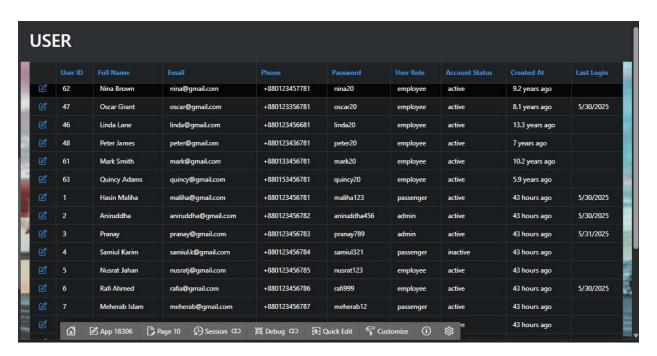
8 - Aircraft Details:



9 - Aircraft Form:



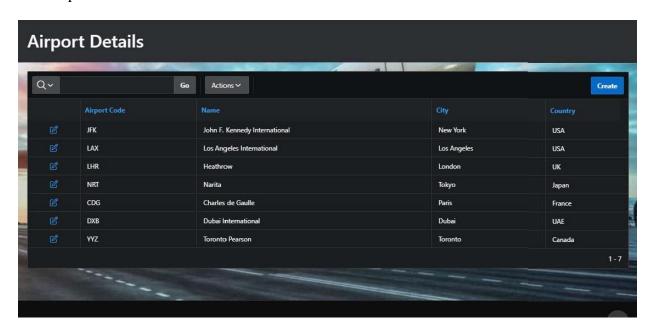
10 – USER:



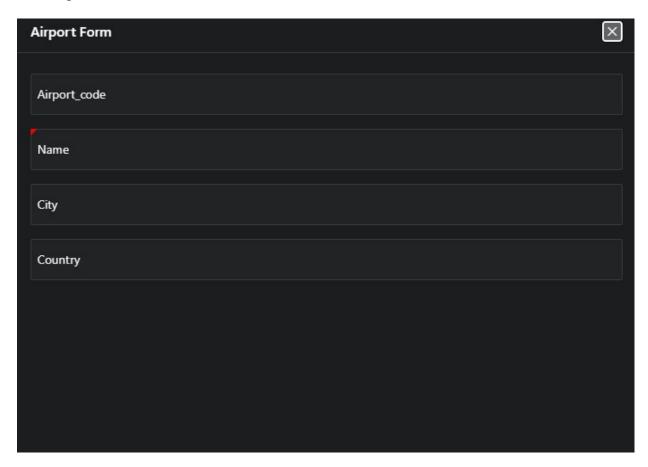
11 – USER:



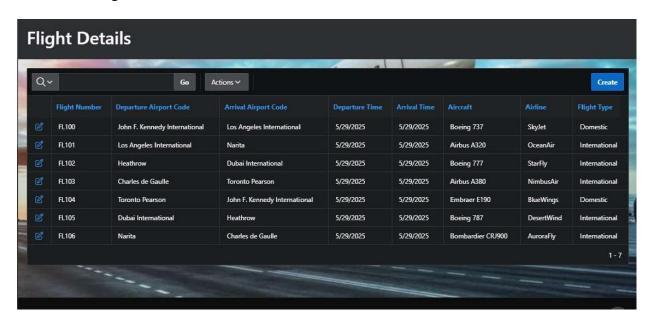
12 - Airport Details:



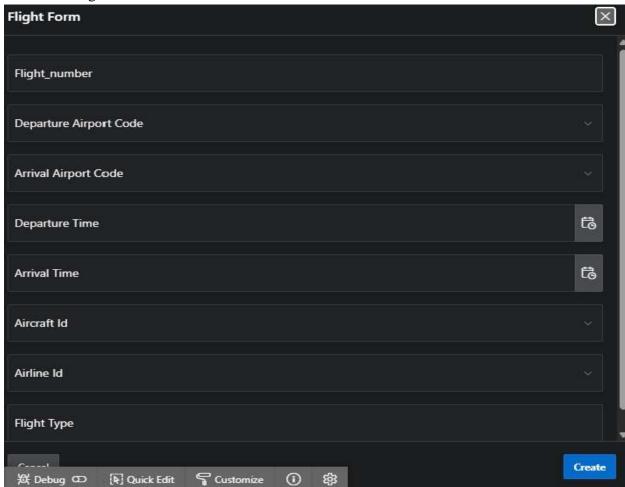
13 - Airport Form:



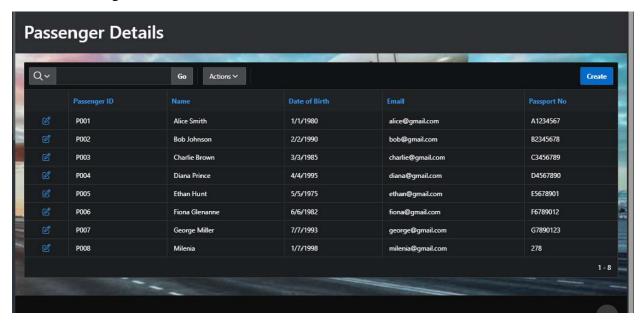
18 - Flight Details:



19 - Flight Form:



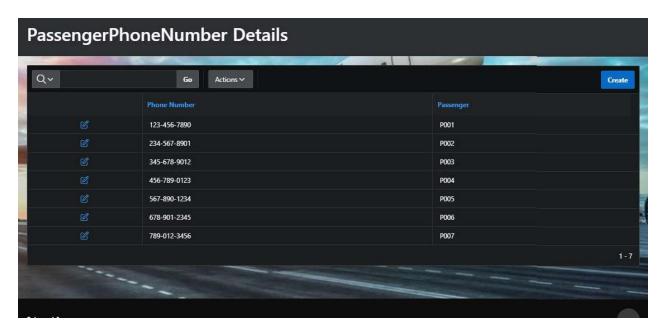
20 - Passenger Details:



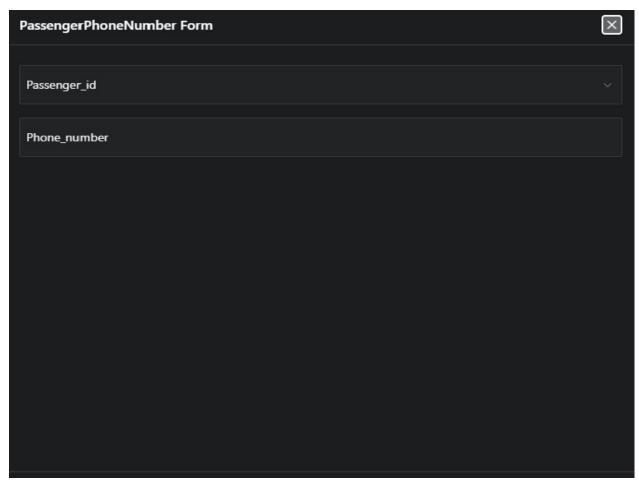
21 - Passenger Form:



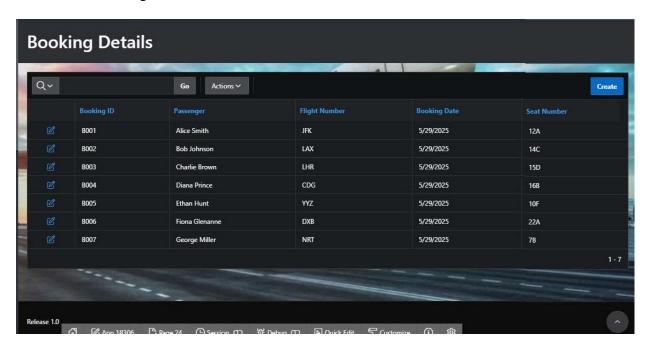
22 - PassengerPhoneNumber Report:



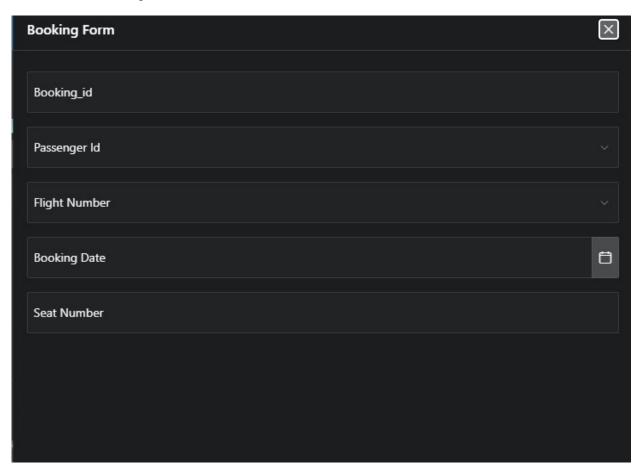
23-PassengerPhoneNumber Form:



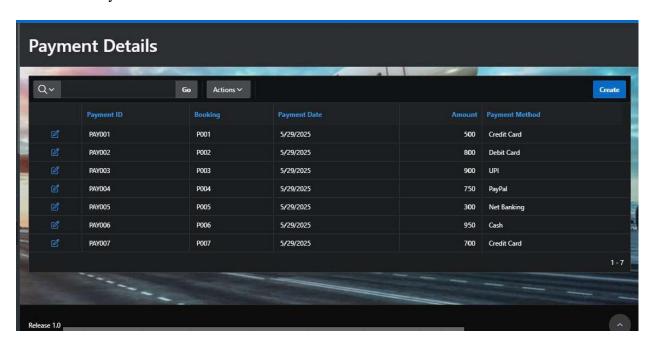
24 - Booking Details:



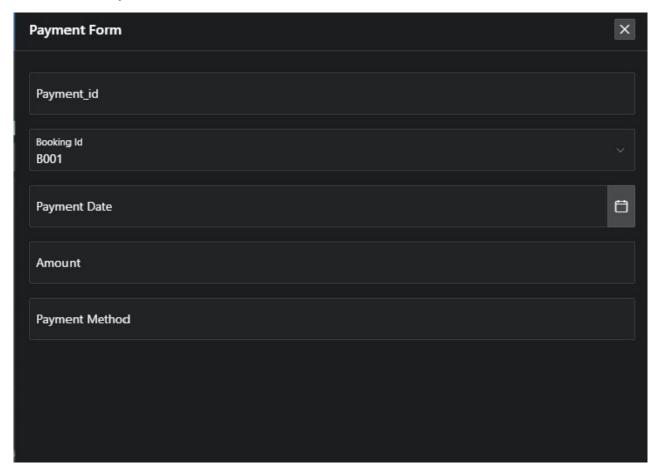
25 - Booking Form:



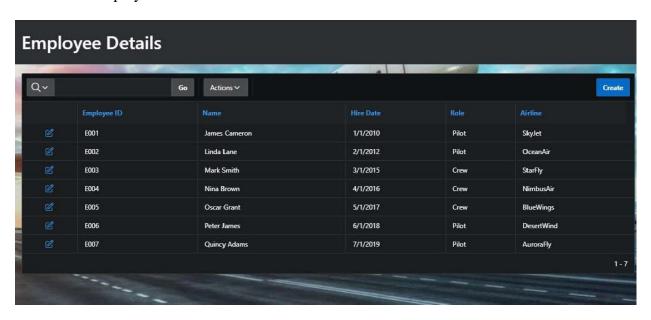
28 - Payment Details:



29 - Payment Form:



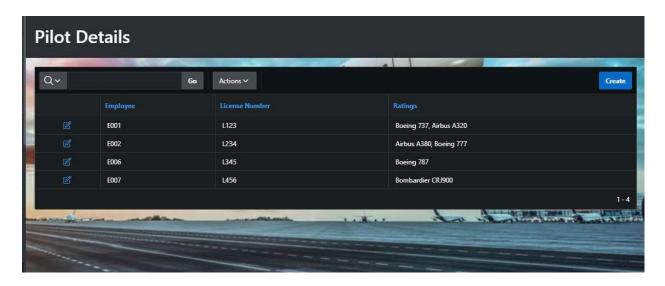
30 - Employee Details:



31 - Employee Form:



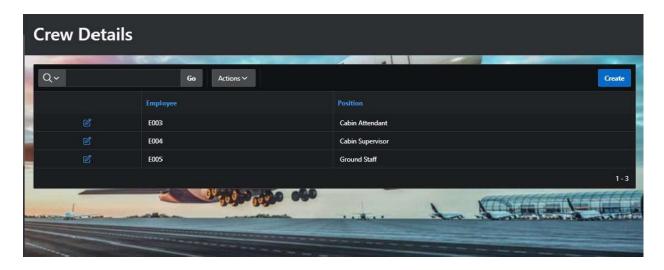
34 - Pilot Details:



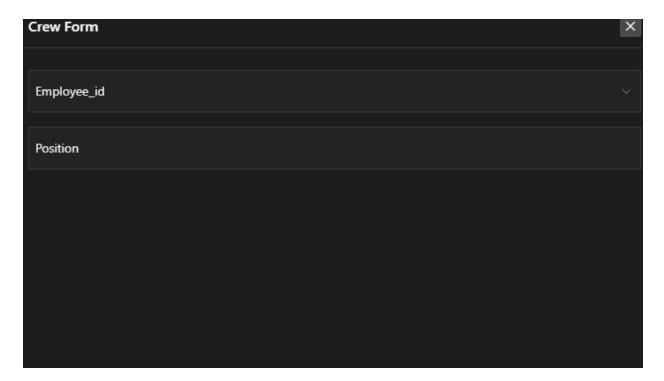
35 - Pilot Form:



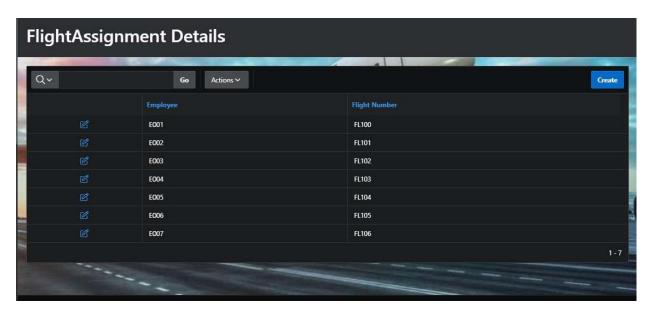
36-Crew Details:



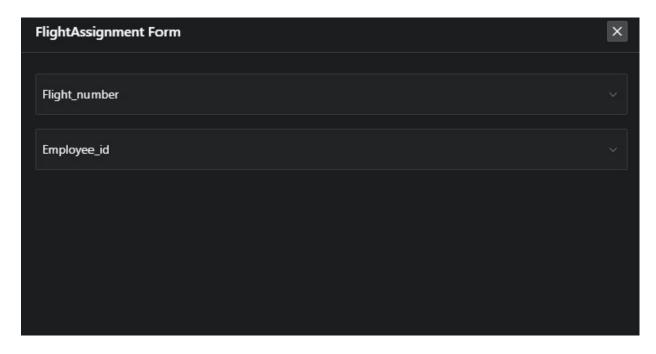
37 - Crew Form:



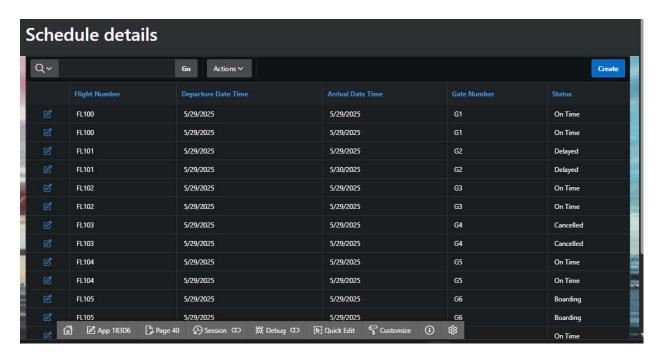
44 - FlightAssignment Details:



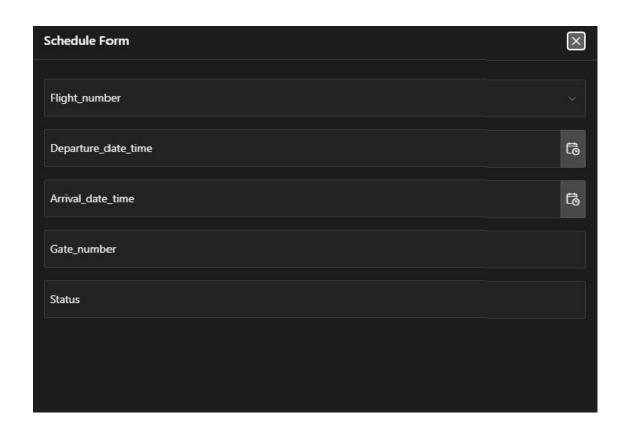
45 - FlightAssignment Form:



40 - Schedule Details:



41 - Schedule Form:

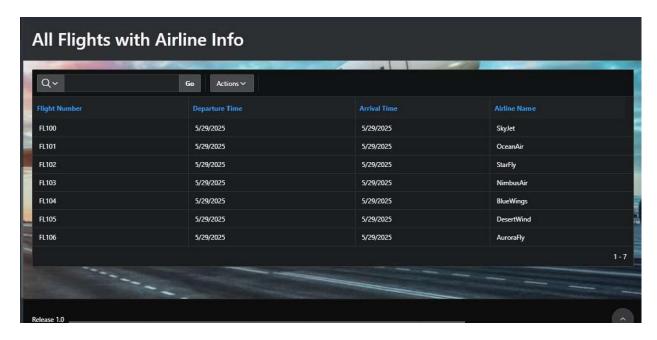


6.Reports based on Multi-Table and Aggregate Queries

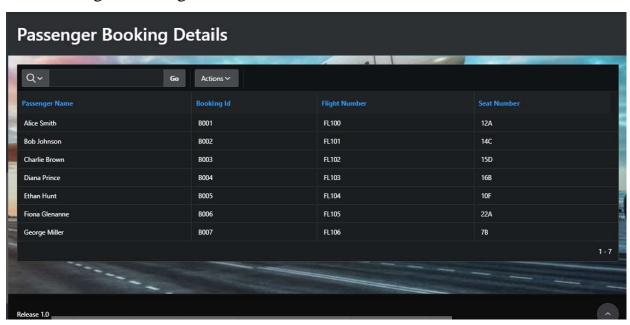
Page Number and Name	Query Type	Report description
write your report page number and name here	Multi-table/Aggregate	write the description of the report in a simple sentence such as this report shows the total number of instructors per department.
6 - All Flights with Airline Info	Multi-table/Aggregate	This report shows flight details along with airline information by joining flights and airlines tables.
14 – Passenger Booking Details	Multi-table/Aggregate	This report displays passenger booking information combining passenger and booking tables.
16–Flight Schedule Status	Aggregate	This report shows the current status of flight schedules with counts per status category.
32 – Pilot With License Info	Multi-table	This report lists pilots along with their license information by joining pilot and license tables.
38–Crew Member with Position	Multi-table	This report shows crew members and their assigned positions on flights.
42 –Payment Summary	Aggregate	This report summarizes payments made grouped by payment methods or periods.
50–Flight Per Airport	Aggregate	This report shows the total number of flights departing or arriving at each airport.
52 - Aircraft and Airline Info	Multi-table	This report provides information on aircrafts along with their respective airlines.
54–Employees Assigned per Flight	Multi-table	This report lists employees assigned to each flight by joining employees and flight assignment tables.
60 –Passenger Contacts	Multi-table	This report shows contact details of passengers associated with their bookings.
62 –International Flights	Aggregate	This report shows counts and details of international flights per route.
66 -Recent Booking	Aggregate	This report shows recently made bookings with summary statistics.
68 - Crew Assigned per Flight	Multi-table	This report lists crew members assigned to each flight with their roles.
72–Payment by Method	Aggregate	This report displays payment totals grouped by different payment methods.
74–Flight with Full Schedule	Multi-table	This report combines flight details with full schedule information from multiple tables.
76 - Employee Count Per Airline	Aggregate	This report shows the number of employees working for each airline.

Attach screenshots of each Page Number and Name:

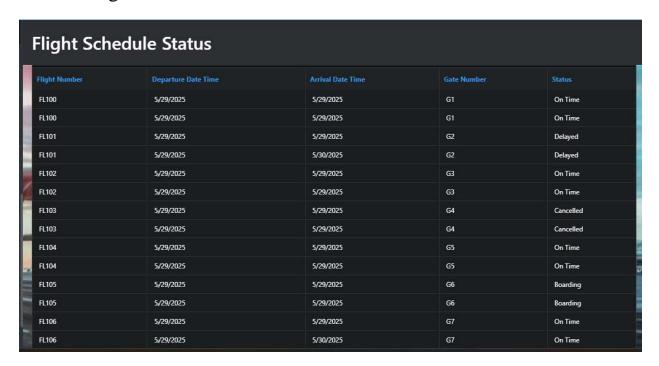
6 - All Flights with Airline Info:



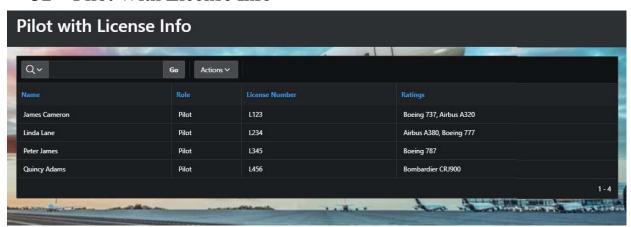
14 – Passenger Booking Details:



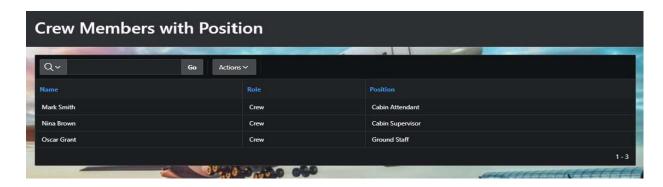
16 – Flight Schedule Status



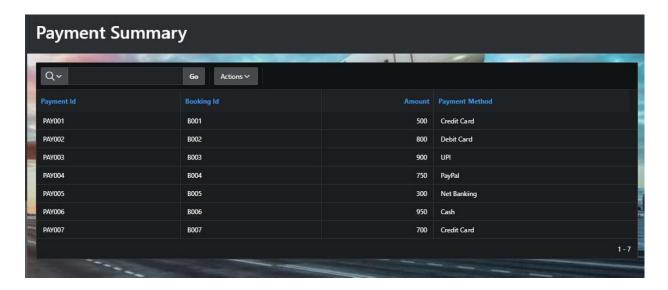
32 – Pilot With License Info



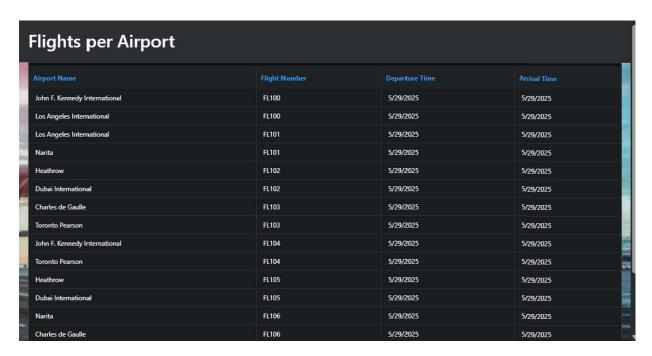
38 – Crew Member with Position



42 – Payment Summary



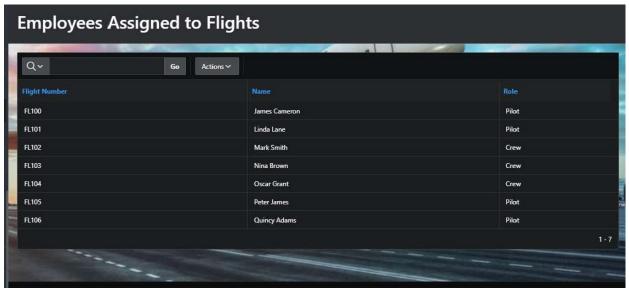
50 – Flight Per Airport



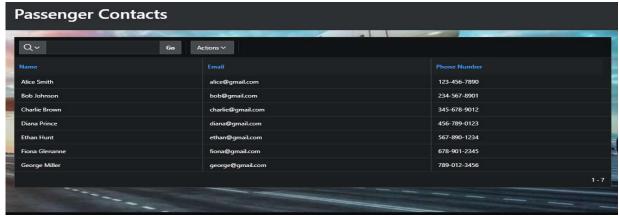
52 - Aircraft and Airline Info



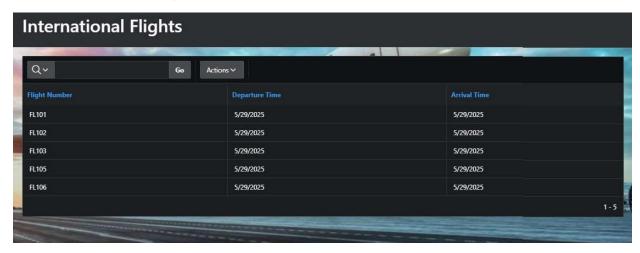
54 – Employees Assigned per Flight



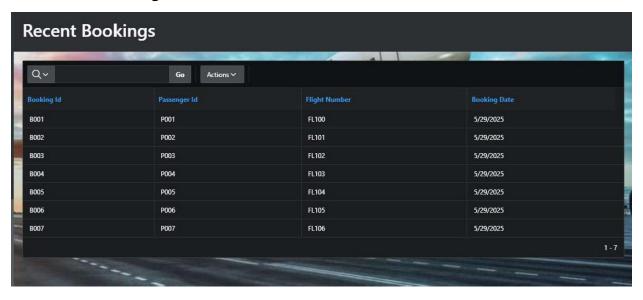
60 – Passenger Contacts



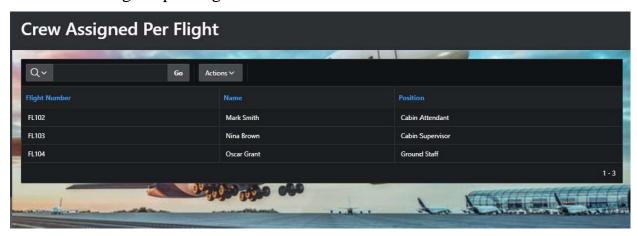
62 – International Flights



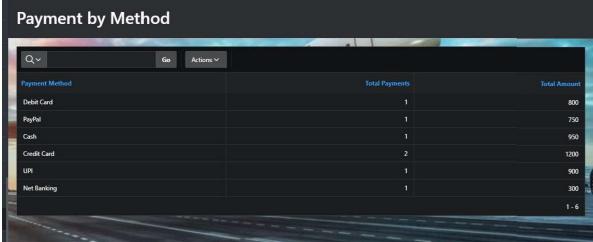
66 -Recent Booking



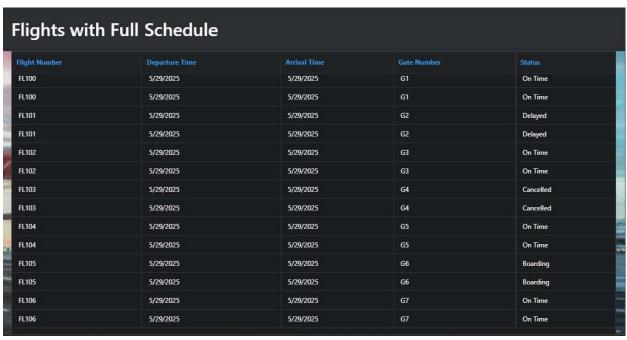
68 - Crew Assigned per Flight



72 – Payment by Method



74 - Flight with Full Schedule



76 - Employee Count Per Airline



7. Authorization and User Role Assignment

User Role Assignment

User name	Password	Role
Example: admin	Example: admin123	Example: Administrator
Nina Brown	nina20	employee
Oscar Grant	oscar20	employee
Linda Lane	linda20	employee
Peter James	peter20	employee
Mark Smith	mark20	employee
Quincy Adams	quincy20	employee
Hasin Maliha	maliha123	passenger
Aniruddha	aniruddha456	admin
Pranay	pranay789	admin
Samiul Karim	samiul321	passenger
Nusrat Jahan	nusrat123	employee
Rafi Ahmed	rafi999	employee
Meherab Islam	meherab12	passenger
Tahia Nawar	tahia456	passenger
Jannat Ara	jannat89	passenger
Sohug	sohug00	admin
James Cameron	james20	employee

8. Concluding Remarks

Developing the **Airline Management System** was a challenging yet rewarding experience. At first, understanding how to design a normalized schema that connects all the airline operations—flights, passengers, bookings, and staff—felt overwhelming. But as we progressed, we gained hands-on experience with Oracle APEX, and it helped us realize how database applications work in the real world. We faced several technical issues, especially with foreign key constraints, user

We faced several technical issues, especially with foreign key constraints, user authentication, and building multi-table reports, but solving them gave us confidence in our problem-solving skills. Collaborating as a team also taught us the value of dividing work based on strengths and keeping communication clear.

We are proud of how the final system turned out. From form-based data input to complex reports and user roles, it truly feels like a working airline management portal. The best part was seeing the data flow across tables and making sense visually through reports.

Thank you for guiding us throughout this course—it has given us a strong foundation in databases that we'll carry forward into our careers.