Advanced Database Systems – Database Description Group – 7

Airline Management System

Database Description and Business Rules

In our Airline Management system there are Admin, Customer, Airport, Bookings, Flight, Aircrafts, Payment, Tickets, Passengers Collections

Admin consists of all admin who can manage database of the airlines these people have privileges to add flight or cancel flight and maintain bookings and cancel bookings. Admin Collection consists of fields staffID, name, contactNumber. Admins are manually added to database by other admins.

Customers are the people who will use the application to create the flight bookings. Customers are added in the database using a registration form. Customers consists of the fields passengerID, name, contactNumber, email.

Aircraft collection consists of all aircrafts details and the flights collection consists of what flights are running and which aircraft is used for it. Aircrafts collection consists of fields aircraftID, aircraftType, registrationNumber, seatingConfiguration, lastMaintenance. And flights consists of fields departureAirport, arrivalAirport, departureDate, arrivalDate, duration, availableSeats, aircraftNumber, flightID. And the Airports in the flight table consists of airport codes their associate airport details consists in the collection Airport.

Bookings collection consists of the details regarding the bookings of flights by the user it will record who booked the flight and which seat got booked and other details also the Bookings collection consists of fields bookingID, passengerID, flightID, bookingStatus, seatNumber. Tickets consists all booking information of customers it consists of fields PasengersID which contains the array of passengers id for whom the customer booked tickets. Passenger collection consists of passenger information including passport number.

Collection Details:

Collection 1 – Admin :

- adminID
- name
- contactNumber

Collection 2 - Customers:

- passengerID
- name
- contactNumber
- email

Collection 3 – Flights:

- departureAirport
- arrivalAirport
- departureDate
- arrivalDate
- duration
- availableSeats
- aircraftNumber
- flightID

Collection 4- Aircraft

- aircraftID
- aircraftType
- registrationNumber
- seatingConfiguration
- lastMaintenance

Collection 5- Airport

- airportCode
- location

Collection 6 – Booking

- bookingID
- flightID
- bookingStatus

<u>Collection 7 – payments</u>

- bookingID
- paidBy
- amount

Collection 8 – Tickets

- passengerID
- seatNumber
- bookingID

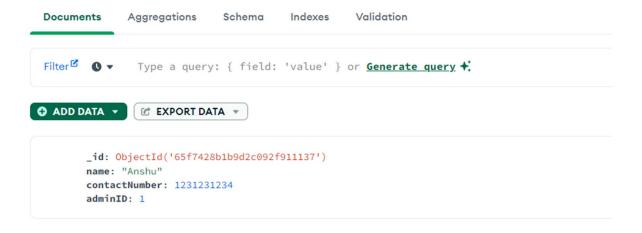
<u>Collection 9 – passengers</u>

- passengerID
- passportNumber
- name
- contactNumber
- email

Sample Collections

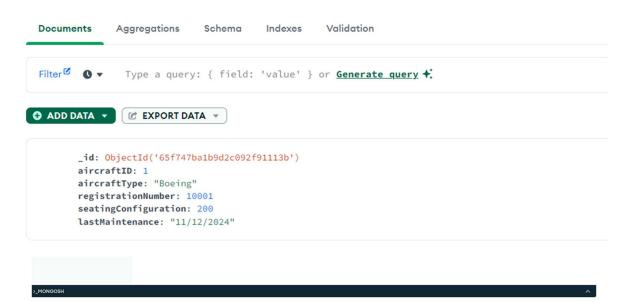
Collection 1 – Admin :

ASMA.Admin



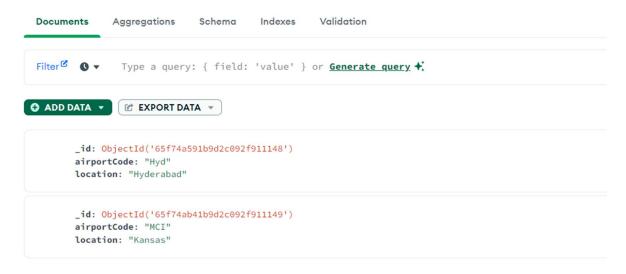
Collection 2 – Aircraft :

ASMA.Aircraft



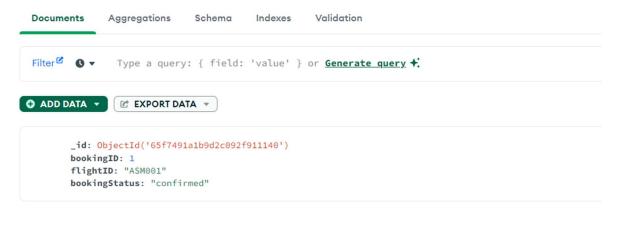
Collection 3 – Airport :

ASMA.Airport



Collection 4- Booking

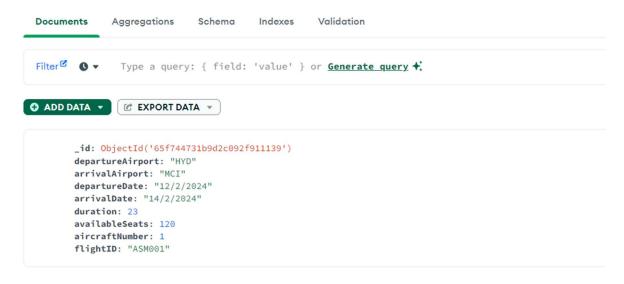
ASMA.Bookings



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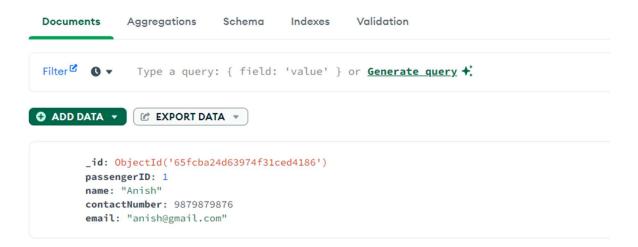
Collection 5- Flight

ASMA.Flights



Collection 6 – Customers

ASMA.Customers



Collection 7 – payments

ASMA.payment

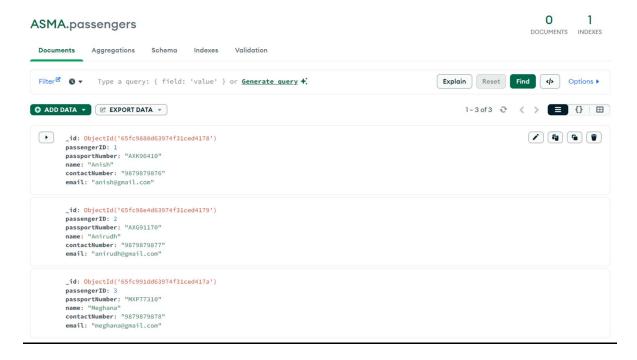


Collection 8 – Tickets

ASMA.Tickets



<u>Collection 9 – passengers</u>



Schema of Database

