

AIR TICKET MANAGEMENT SYSTEM

Project Description:

Air travel is the quickest mode of transportation over land and sea. In today's world, where time is considered the most valuable asset, air transport plays a vital role in the transportation of cargo and passengers. Maintaining the relevant Airways data is crucial. The data about airlines, airports, and flight information will be stored and shown via a system we plan to create for managing airline tickets. This system allows administrators to add airports, airlines, seats, stops, and fares. This website allows users to reserve tickets for travel on specific dates, and it also keeps track of details like the date of the trip, the arrival and departure airports, and the arrival time at the destination. To view or manage this website, you must first log in or sign up. The Admin logs in with default credentials. He will be able to manage the databases. He can add airlines, airports, flight information, and other details of the flight. In the same way, he can update and delete the records of the databases. Editing access will not be granted to an end user. Any user credential other than the Admin credentials will be considered an end user. The end user could just view the website and book tickets by having access to all the databases in tabular format by going through the tabs on the website.

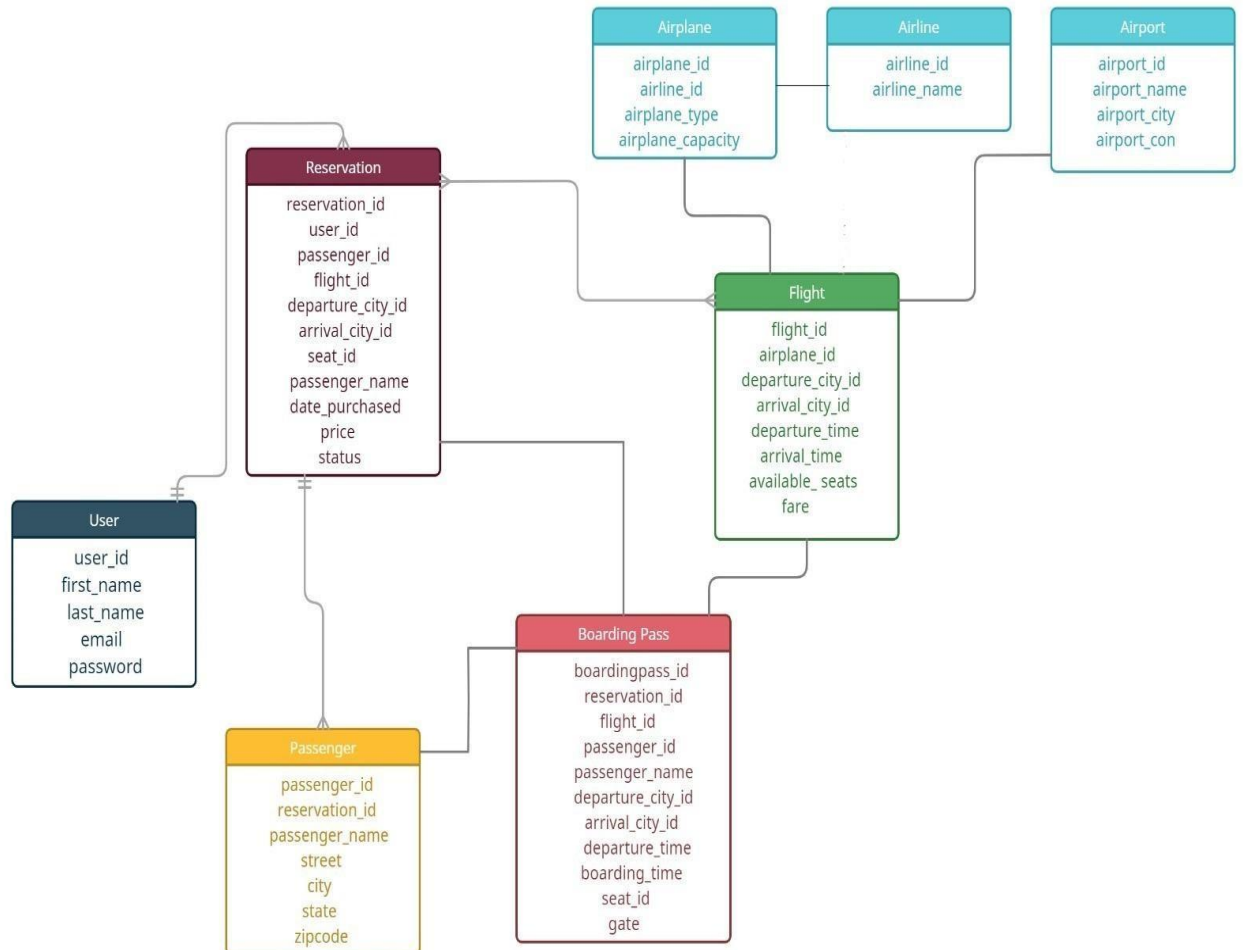
The user can login to the website by their registered details and search for the flights. User can view all the flights that were added by the administrator. User can book the flight by making the payment and after the payment. The user can view their bookings and boarding pass. The ongoing project will enable users with Web service access to view this content. The long-term objective, outside the purview of the

construction job, is for the database to be open to the public and accessible, giving users access to various airline-related information.

Database Description:

We have 8 collections named as Airport, Airline, Airplane, Flight, Passenger, Boarding Pass, Reservation and the User. The Airport collection stores the information like airport id, airport name, airport city and airport country. The Airline collection stores the information like airline id and airline name. The Airplane collection stores the information like plane id, plane type, plane capacity and in this collection the referred field plane id also stores in flight collection along with fields like flight id, airline id, departure city id, departure time, arrival city id, arrival time, available seats and fare. This available seats in the flight table will be decreased as passengers starts booking ticket to that particular flight. The Passenger collection stores the information like passenger id, reservation id, name, street, city, state and zip code in this collection and the referred field passenger id and the flight id from flight collection also stores the information in Reservation collection along with reservation id, user id, passenger name, flight id, departure city id, arrival city id, date of purchase, price and status. The User collection stores the information like user id, first name, last name, user name, email and password. Primary keys in each collection are user_id from User collection, air_id from Airline, flight_id from Flight, user_id from Reservation, passenger_id from Passenger and plane_id from Airplane and reservation id from boarding pass collections.

Database Model:



Data Dictionary:

Collection List:

Airline Storage size: 20.48 kB Documents: 1 Avg. document size: 55.00 B Indexes: 1 Total index size: 20.48 kB	Airplane Storage size: 20.48 kB Documents: 1 Avg. document size: 83.00 B Indexes: 1 Total index size: 20.48 kB	Airport Storage size: 20.48 kB Documents: 2 Avg. document size: 119.00 B Indexes: 1 Total index size: 36.86 kB
BoardingPass Storage size: 4.10 kB Documents: 1 Avg. document size: 261.00 B Indexes: 1 Total index size: 4.10 kB	Flight Storage size: 20.48 kB Documents: 1 Avg. document size: 243.00 B Indexes: 1 Total index size: 20.48 kB	Passenger Storage size: 20.48 kB Documents: 2 Avg. document size: 158.00 B Indexes: 1 Total index size: 36.86 kB
Reservation Storage size: 20.48 kB Documents: 1 Avg. document size: 293.00 B Indexes: 1 Total index size: 20.48 kB	User Storage size: 20.48 kB Documents: 1 Avg. document size: 118.00 B Indexes: 1 Total index size: 20.48 kB	

Sample Data:

Airlines:

```
{
  "_id": {
    "$oid": "6385e8f29dacc3aa7de07c8a"
  },
  "airline_name": "Indian Airlines"
},
{
  "_id": {
    "$oid": "6385ea0a9dacc3aa7de07c94"
  },
  "airline_name": "Deccan Airlines"
```

```
}
```

Airplanes:

```
{  
  "_id": {  
    "$oid": "638613f5745e252722e37abf"  
  },  
  "airline_id": {  
    "$oid": "6385e8f29dacc3aa7de07c8a"  
  },  
  "airplane_type": "Airbus A340",  
  "airplane_capacity": 150  
},  
  
{  
  "_id": {  
    "$oid": "6386150c745e252722e37ac0"  
  },  
  "airline_id": {  
    "$oid": "6385e9e79dacc3aa7de07c90"  
  },  
  "airplane_type": "Kingfisher 747",  
  "airplane_capacity": 120  
}
```

Airports:

```
{  
  "_id": {  
    "$oid": "6387992557e08dc217dacf39"  
  },  
  "airport_name": "Rajiv Gandhi International Airport",  
  "airport_city": "Hyderabad",  
  "airport_country": "India",  

```

```
"airport_code": "HYD"  
}
```

Flights:

```
{  
  "_id": {  
    "$oid": "6391fb08e332cb57935b39e5"  
  },  
  "flight_no": "178",  
  "airplane_id": {  
    "$oid": "6391e0a77c57516e1d5990dd"  
  },  
  "airline_id": {  
    "$oid": "6391df287c57516e1d5990cf"  
  },  
  "from_airport_id": {  
    "$oid": "6391e1217c57516e1d5990e1"  
  },  
  "to_airport_id": {  
    "$oid": "6391e0e27c57516e1d5990df"  
  },  
  "departure_time": {  
    "$date": {  
      "$numberLong": "-2208935100000"  
    }  
  },  
  "arrival_time": {
```

```
"$date": {
  "$numberLong": "-2208909900000"
},
"duration": "7 hrs 00 min",
"available_seats": "111",
"fare": 200
}
```

User :

```
{
  "_id": {
    "$oid": "6391e19e7c57516e1d5990e4"
  },
  "first_name": "ramya",
  "last_name": "sree",
  "email": "ramyasreekuppam99@gmail.com",
  "phone_number": "9137492788",
  "password": "123456"
}
```

Passenger:

```
{
  "_id": {
    "$oid": "6391e1da7c57516e1d5990e6"
  },
  "reservation_id": {
    "$oid": "6391e1da7c57516e1d5990e5"
  },
}
```

```
"first_name": "ramya",
"last_name": "sree",
"email": "ramyasreekuppam99@gmail.com",
"phone_number": "9137492788",
"state": "ks",
"zipcode": "66213"
}
```

Reservation:

```
{
  "_id": {
    "$oid": "6391e1da7c57516e1d5990e5"
  },
  "user_id": {
    "$oid": "6391e19e7c57516e1d5990e4"
  },
  "journey_type": "OneWay",
  "flight_id": {
    "$oid": "6391e1617c57516e1d5990e2"
  },
  "departure_city_code": "HYD",
  "departure_date": {
    "$date": {
      "$numberLong": "1670457600000"
    }
  },
  "price": 229,
  "booked_on": {
    "$date": {
```



```
    "$numberLong": "1670483322910"
  }
},
"passengers": 2,
"status": "confirmed"
}
```

Boarding Pass:

```
{
  "_id": {
    "$oid": "6391e1da7c57516e1d5990e7"
  },
  "reservation_id": {
    "$oid": "6391e1da7c57516e1d5990e5"
  },
  "passenger_id": {
    "$oid": "6391e1da7c57516e1d5990e6"
  },
  "flight_id": {
    "$oid": "6391e1617c57516e1d5990e2"
  },
  "first_name": "ramya",
  "last_name": "sree",
  "departure_city_code": "HYD",
  "arrival_city_code": "MAA",
  "departure_date": {
    "$date": {
      "$numberLong": "1670457600000"
    }
  },
},
```

```
"boarding_time": {  
  "$date": {  
    "$numberLong": "1670537280000"  
  }  
},  
"terminal": 6,  
"gate": "P1",  
"seat": 1  
}
```

Functional Requirements:

The admin will login into the system with default credentials. The admin can add the Airlines,Airplanes,Airports and Flights to the database and also view the added ones.

The user can login with the registered login and password details. After login,the user can search for the necessary flights and book them according to their convenient timings.

After booking,the user can view their bookings and boarding pass.

User Interfaces and Forms: head.html : In this

page all the navigation are present.

Admin login.html : In this page admin can login with the default username and password.

Add_airlines.html : In this page admin can add the airlines.

Add_airplanes.html :In this page admin can add the airplanes.

Add_airports.html :In this page admin can add the airports.

Add_flights.html :In this page admin can add the flights.

Book_flights.html:In this page user can book the flights.

Admin Login:

[Airline Booking](#) [Home](#) [Registration](#) [Login](#)

Email

Password

Login

Add Airlines :

ATMS

Menu

Airlines

Airplanes

Airports

Flights

Reservations

Welcome! Admin Logout

Airlines

Enter airline

Add

Show 25 entries

Search:

S.No	Airlines	Action
------	----------	--------

View Airlines:

ATMS

Menu

Airlines

Airplanes

Airports

Flights

Reservations

Show 25 entries

Search:

S.No	Airlines	Action
1	spirit	<div>EditDelete</div>
2	jet blue	<div>EditDelete</div>
3	United airlines	<div>EditDelete</div>
4	American airlines	<div>EditDelete</div>
5	Deccan airlines	<div>EditDelete</div>
6	indigo	<div>EditDelete</div>
7	spicejet	<div>EditDelete</div>

Showing 1 to 7 of 7 entries

Previous

1

Next

Add Airplanes:

ATMS

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Welcome! Admin Logout

Save Airplane

Airline

--select airline--

Airplane type

Capacity

Add

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View Airplanes:

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Airlines

Airplanes

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Reservations

Welcome! Admin Logout

Airplanes

+ Add Airplane

Show 25 entries

Search:

S.No	Airlines	Airplane Type	Capacity	Action
1	United airlines	qatar	100	<a>Edit <a>Delete
2	United airlines	Airbus	150	<a>Edit <a>Delete
3	Deccan airlines	delta	100	<a>Edit <a>Delete
4	Deccan airlines	qatar	150	<a>Edit <a>Delete
5	indigo	kingfisher	100	<a>Edit <a>Delete

Showing 1 to 5 of 5 entries

Previous1Next

Add Airports:

ATMS

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Airlines

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Airports

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Welcome! Admin Logout

Save Airport

Airport Name

Airport Code

Airport City

Airport Country

Add

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View Airports:

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Welcome! Admin Logout

Airports List

+ Add Airport

Show 25 entries Search:

S.No	Airport Name	Code	City	Country	Action
1	Visakhapatnam International Airport	VTZ	VISAKHAPATNAM	India	Edit Delete
2	Chennai International Airport	MAA	Chennai	India	Edit Delete
3	Rajiv Gandhi International Airport	HYD	HyDERABAD	India	Edit Delete

Showing 1 to 3 of 3 entries Previous 1 Next

Add Flights:

ATMS

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Airlines

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Airports

Flights

Reservations

Welcome! Admin Logout

Save Flights

Flight No

Airline

--select airline--

From City

--select from--

To City

--select to--

Departure Time

--:--:--

Arrival Time

--:--:--

Available Seats

Fare

Add

Back to list

View Flights:

ATMS

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Airlines

Airplanes

Airports

Flights

Reservations

Welcome! Admin Logout

Flight List

+ Add Flight

Show 25 entries Search:

S.No	Flight No	Airplane	From City	To City	Departure Time	Arrival Time	Duration	Stops	Fare	Action
1	129	Deccan airlines qatar (150)	HYD	MAA	11 42 AM	03 40 PM	3 hrs 58 min		\$ 300.0	Edit Delete
2	129	Deccan airlines qatar (150)	HYD	MAA	11 42 AM	03 40 PM	3 hrs 58 min		\$ 300.0	Edit Delete
3	123	indigo kingfisher (100)	HYD	MAA	08 36 PM	01 34 PM	16 hrs 58 min		\$ 150.0	Edit Delete

Book Flights:

One-Way

Depart

Destination

Onward

Class

Passengers

HYD-HyDERABAD

MAA-Chennai

09-12-2022

Economy

1

search

HYD, HyDERABAD -> MAA, Chennai

Show 25 entries

Search:

Flight	Time	Duration	Fare	Book
111	23:08 PM - 07:06 AM	7 hrs 58 min	\$100.0	Book now
123	07:06 AM - 13:06 PM	6 hrs 00 min	\$50.0	Book now
123	20:36 PM - 13:34 PM	16 hrs 58 min	\$150.0	Book now
129	11:42 AM - 15:40 PM	3 hrs 58 min	\$300.0	Book now
129	11:42 AM - 15:40 PM	3 hrs 58 min	\$300.0	Book now

View Reservations:

Airline Booking Home Reservations Logout Welcome! ramya sree

Reservations

S.No	Reservation Id	Booked on	flight	Departure Date	From	To	Status	Action
1	639384ed99d11d8598b8b61d	09-12-2022	111	09-12-2022	HYD	MAA	confirmed	<div>View Passengers</div> <div>Cancel</div>
2	63937aa999d11d8598b8b614	09-12-2022	111	09-12-2022	HYD	MAA	confirmed	<div>View Passengers</div> <div>Cancel</div>
3	639204a4e332cb57935b39ef	08-12-2022	111	08-12-2022	HYD	MAA	confirmed	<div>View Passengers</div> <div>Cancel</div>

View Boarding pass:

Airline Booking Home Reservations Logout Welcome! ramya sree

Boarding Pass

Back to passengers list

indigo

Ramya kuppam

Flight

From

To

Date

111

HYD 11:08 PM

MAA 07:06 AM

12/09/2022

Terminal

Gate

Boarding time

Seat

6

Y13

10:08 PM

5