Airline Reservation System ER Diagram

The **airline reservation system ER diagram** shows the relationships of the system's entities that build its **database design**. This describes the logical structure of the system's database or data storage. It is done by identifying the airline reservation process entities, their properties, and the interactions between them.

The **airline reservation system database design** is sketched out using **ER (entity-relationship) diagram**. This sketch becomes the actual basis of the system's data storage that will serve as data destination and source.

Airline Ticket Reservation System Features

- **Airline Ticket Reservation Management** - Airline Reservation Management is the main feature of this system wherein ER diagram contains the basic details of the system. Its information was composed of the transactions done by the customers, and the accommodation available for reservation.
- **Customer Management** - This feature plays a big role in the system because this gathers important information about the customers. This information was used to track their transactions and other important matters regarding the system.
- **Manage Airline Information** - Airline information management was important for the system because it serves as the basis of the customers as they avail of the reservation offered by the airline. This information was monitored to keep the customers updated.
- **Transaction and Reservation Management** - Its feature will store the reservation made by the customers as well as the date of the transaction. This will also save and update the accommodate based on the date requested by the customers.

What is an ER Diagram?

In DBMS, the **ER Diagram of airline reservation system** is also known as the system's **database design**. It is the graphical depiction of relationships between all the entities involved in the system. Its major components are Entities, Attributes, and Relationships.

To build and troubleshoot relational databases, the **airline reservation system ER Diagram** is used. It works best with DFD (Data Flow Diagram), which is responsible for data movement. Developing the **database design for airline reservation system** would be much easier with the help of ER diagram.

Importance of ER Diagram

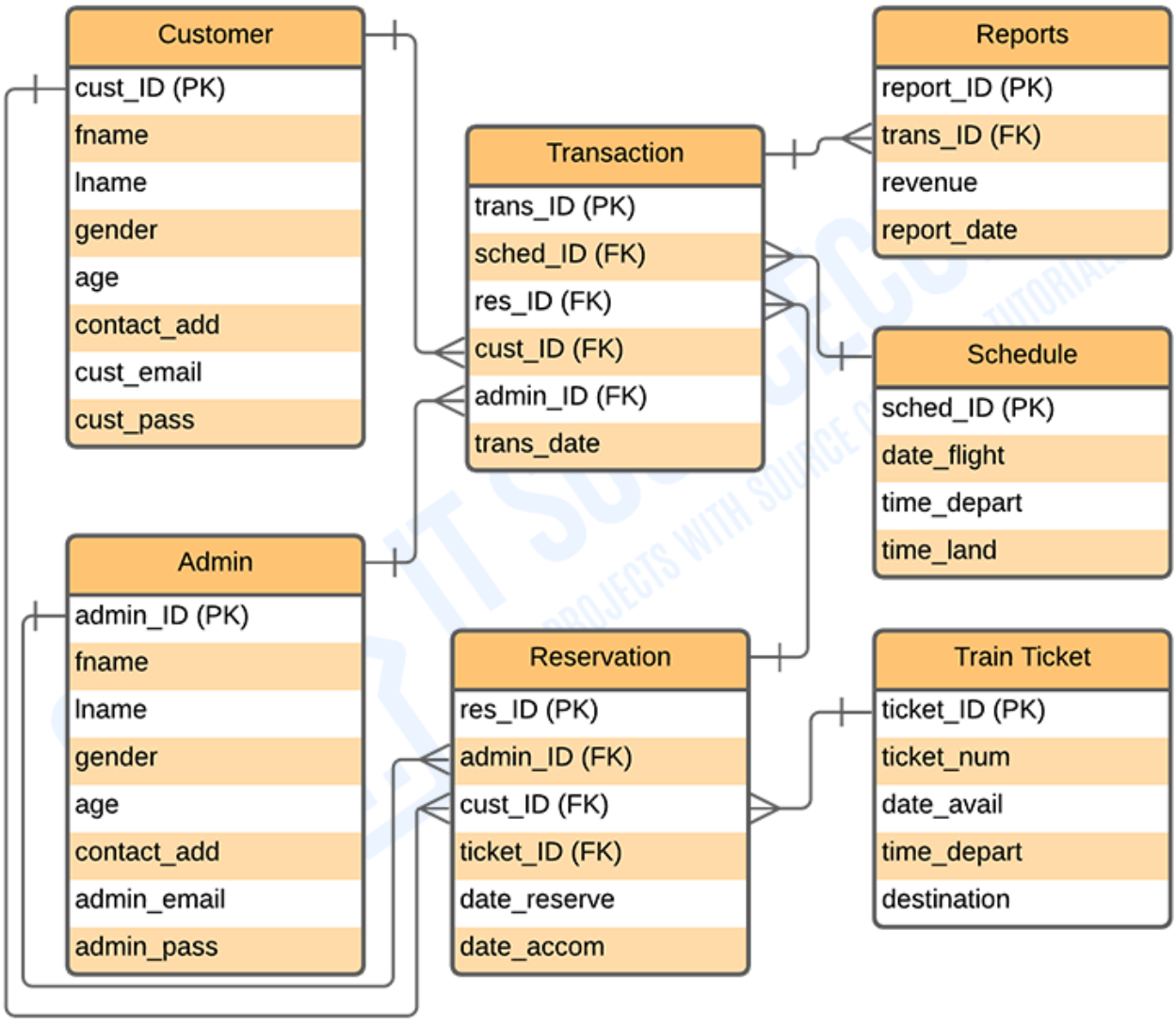
The **importance of ER diagram for airline reservation system** is to help in modeling its data storage or database. It is the basis of the project's database foundation for construction. The **airline reservation system entity-relationship diagram (ERD)** also aids in defining the data types to be stored such as their attributes and characteristics.

All other real-world projects are presented with ER Diagrams (database designs). To display the details and attributes of a data store, the **er diagram for airline reservation system** is used in conjunction with its data flow diagram. It visualizes how data is connected generically.

ERD (Entity-relationship diagram) is utilized in software engineering during the planning phase of software development. It aids in the identification of various system constituents and their interrelationships. **Airline Reservation System ERD** is also used as the foundation of the airline reservation DFD (Dataflow Diagram).

ER Diagram for Airline Reservation System

ER Diagram of Airline Reservation System shows the system entity relationships in each entity and their supposed functions in each relationship.



Airline Reservation System ER Diagram

Based on the image above, the **Entity-Relationship diagram for Airline Reservation system tables** includes the following: customer, admin, airline ticket, reservation, transaction, schedule, and reports. The tables are made to meet the required specification of the system and provide much more specific details of each entity within the system.

Airline Reservation System Database Design

The **airline reservation system database design** was made based on managing reservation requirements. The system can encode customers' requests regarding Airline reservations. The system admin can have access to the customers' status and information for reservation transactions and reservations as well as their employees.

The features included in the system's ER diagram were the security and monitoring of the reservations and customers' records, transactions, and status. These features were also listed and recorded in reports that served as the history of transactions done in the system.

Airline Ticket Reservation System ER Diagram Tables

These tables below provide the complete database table details such as **Field Name**, **Descriptions**, **data types**, and **character lengths**. Each of these tables represents the characteristics and the attributes of data storage. The **field** column presents the names of each database's attributes, the **description** column gives the complete thought of each attribute, the **type** column is their data type and the **length** are for their character lengths.

Table Name: Customer

Field	Description	Type	Length
stud_ID (PK)	Customer ID	Int	11
fname	Customer First Name	Varchar	255
lname	Customer Last Name	Varchar	255
gender	Customer Gender	Int	11
age	Customer Age	Int	11
contact_add	Contact Address	Int	11
cust_email	Customer Email	Varchar	255
cust_pass	Customer Password	Varchar	255

Table Name: Admin

Field	Description	Type	Length
admin_ID (PK)	Admin ID	Int	11
fname	Admin First Name	Varchar	255
lname	Admin Last Name	Varchar	255
gender	Admin Gender	Int	11
age	Admin Age	Int	11
contact_add	Contact Address	Int	11
admin_email	Admin Email	Varchar	255

admin_pass	Admin Password	Varchar	255

Table Name: Ticket

Field	Description	Type	Length
ticket_ID (PK)	Ticket ID	Int	11
ticket_num	Ticket Number	Int	11
date_avail	Date Available	Date	
date_flight	Date of Flight	Date	
time_depart	Departure Time	Time	
time_land	Landing Time	Time	
destination	Destination	Varchar	30

Table Name: Reservation

Field	Description	Type	Length
res_ID (PK)	Reservation ID	Int	11
cust_ID (FK)	Customer ID	Int	11
admin_ID (FK)	Admin ID	Int	11
ticket_ID (FK)	Ticket ID	Int	11
date_reserve	Date Reservation	Date	
date_accom	Date of Accommodation	Date	

Table Name: Transaction

Field	Description	Type	Length
trans_ID (PK)	Transaction ID	Int	11
trans_name	Transaction Name	Varchar	30
borrowing_ID (FK)	Subject ID	Int	11
stud_ID (FK)	Student ID	Int	11
trans_date	Date of Transaction	Date	

Table Name: Transaction Type

Field	Description	Type	Length
transty_ID (PK)	Transaction Type ID	Int	11
trans_name	Transaction Type	Varchar	30

Table Name: Reports

Field	Description	Type	Length
report_ID (PK)	Report ID	Int	11
trans_ID (FK)	Transaction ID	Int	11
res_ID (FK)	Reservation ID	Int	11
report_date	Report Date	Date	

The tables given will be the basis for developers on how would they do the **airline reservation system database design**. It has the complete description of the database and they will

put this into the program or data storage the same as the names given to each of the tables. They will create a database with the attributes given as well as the value of each attribute.