Airline Tickets

Functions

Customers:

- The customer can buy a flight and a flight schedule will be assigned to him.
- The customer can cancel his flight.

Business

- The users of the system can assign their pilots, aircrafts and Routes to a flight Schedule.
- The users of the system can see all the transactions that the passengers have been done.

Entities and attributes

1. AirCraft
2. Route
3. Flight Schedule
4. Countries
5. State
6. Passengers
7. Pilots
8. Transactions
9. Airports

Aircrafts

Field	DataType	Description	Constraints
ID	INT	Field will store unique row number.	Primary Key
Number	VARCHAR (10)	Aircraft number that identifies the plane.	NOT NULL, UNIQUE
Capacity	INT	Number of seats avaiable.	NOT NULL
Company	VARCHAR (64)	Company of the airline.	NOT NULL

Route

Field	DataType	Description	Constraints
ID	INT	Field will store unique row number.	Primary Key
Origin Airport	INT	PK of the Airports table. Indicates the departure airport.	Foreign Key

Field	DataType	Description	Constraints
Destiny Airport	INT	PK of the Airport table. Indicates the destiny airport.	Foreign Key

Flight_Schedule

Field	DataType	Description	Constraints
ID	INT	Field will store unique row number.	Primary Key
FlightDate	DATETIME	Date of flight.	NOT NULL
Departure	DATETIME	Stores the departure time of flight.	NOT NULL
Arrival	DATETIME	Stores the arrival time of flight destination.	NOT NULL
AirCraft	INT	Aircraft number that will fly. PK from Aircraft table.	Foreign Key.
Route	INT	Route of the Flight. PK from the Route Table.	Foreign Key.
Pilot	Int	Pilot that will flew the aircraft. PK from the pilot table.	Foreign Key.

Coutries

Field	DataType	Description	Constraints
ID	INT	Field will store unique row number.	Primary Key
CountryName	VARCHAR(32)	Stores the country name	NOT NULL

State

Field	DataType	Description	Constraints
ID	INT	Field will store unique row number.	Primary Key
StateName	VARCHAR (32)	Stores the state name.	NOT NULL
Country	INT	PK from country table	Foreign Key

Passengers

Field	DataType	Description	Constraints
ID	INT	Field will store unique row number.	Primary Key
Name	VARCHAR(32)	Passenger's name	NOT NULL
LastName	VARCHAR(32)	Passenger's last name	NOT NULL
Age	INT	Passenger's age	NOT NULL
Flight Schedule	INT	PK of Flight Schedule table. Indicates the Schedule of the passenger flight.	Foreign Key

Pilots

Field	DataType	Description	Constraints
ID	INT	Field will store unique row number.	Primary Key
PilotName	VARCHAR(32)	Pilot's name	NOT NULL
PilotLastname	VARCHAR(32)	Pilot's last name	NOT NULL

Airports

Field	DataType	Description	Constraints
ID	INT	Field will store unique row number.	Primary Key
Airport Name	VARCHAR(64)	Airport's name	NOT NULL
Airport State	INT	PK from table state. Indicates the location of the airport.	Foreign Key

Transactions

Field	DataType	Description	Constraints
ID	INT	Field will store unique row number.	Primary Key
BookingDate	DATETIME	Date of the transaction.	NOT NULL
Passenger	INT	PK of the Passenger that creates the transaction.	Foreign Key
Flight	INT	PK of the Flight Schedule of the transaction.	Foreign Key
Type	BIT	Reservation or Cancellation.	NOT NULL
Total	INT	Cost of the transaction.	NOT NULL

ER DIAGRAM

Passenger

ID	Integer
Name	VARCHAR(32)
Last Name	VARCHAR(32)
Age	Integer
Flight Schedule	Integer

Transactions

ID	Integer
Booking Date	DateTime
Passenger	Integer
Flight	Integer
Type	Bit
Total	Integer

Flight Schedule

ID	Integer
Flight Date	DateTime
Departure	DateTime
Arrival	DateTime
AirCraft	Integer
Route	Integer
Pilot	Integer

AirCraft

ID	Integer
Number	VARCHAR(10)
Capacity	Integer
Company	VARCHAR(64)

Pilots

ID	Integer
Name	VARCHAR(32)
Last Name	VARCHAR(32)

Countries

ID	Integer
Country Name	VARCHAR(32)

State

ID	Integer
StateName	VARCHAR(32)
Country	Integer

Route

ID	Integer
Origin Airport	Integer
Destiny Airport	Integer
Route Name	VARCHAR(32)

Airports

ID	Integer
Airport Name	VARCHAR(64)
Airport State	Integer