

**IST 659
M005
Fall 2018**

Airport Database System

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Project Summary

The project which we are building is an Airline Database System. It comes under the Airport authority. The proposed project is for the airline employees as well as for passengers for their ease of travel and so that airline employees can quickly make changes in the system. We have built a Kiosk system for passengers to print their ticket quickly.

The current system will allow passengers to print ticket without actually going to the counter. The system will allow the employees working at the airport to add a meal plan for a passenger. The employees working at the catering system will be allowed to add different type of meal plans with the option of vegetation or non-vegetarian food. The employees working at the central authority will be allowed to update the flight database by adding new flight that have been planned by different airlines.

We want to ease the travelling experience for passengers and decrease the time spent in lines at the airport to print tickets, we also want to provide them cuisines and meal options which we don't get to choose before the flight. The database will allow passengers to choose their meal preference before boarding the flight. We are focusing more on the needs of older passengers, it will be easy for them to print tickets without long queues.

The aim is to structure a database, where airport administration can access the data which is relevant to their requirement. The database system would be managed in a way that all the information will be in a relational table format about customer details, airline details as well as customer preferences. The purpose of this system is to increase automation and remove the physical paperwork that is involved.

The analysis will be shown through forms and report

Entity and Attribute Glossary

Airline	Delta, Eithad
Airline Name	Name of the Airline
CRM Number	Unique for each airline

Cuisine	Indian, Mexican
Cuisine ID	Primary ket,unique for each type
Cuisine Type	Options for cuisine available
Vegetarian	Returns Y or N

Airport	EWR, JFK
Airport code	Primary key, uniquely identifies
Airport Name	Name of the airport
Airport City	City of the airport
Airport State	State in which airport is present

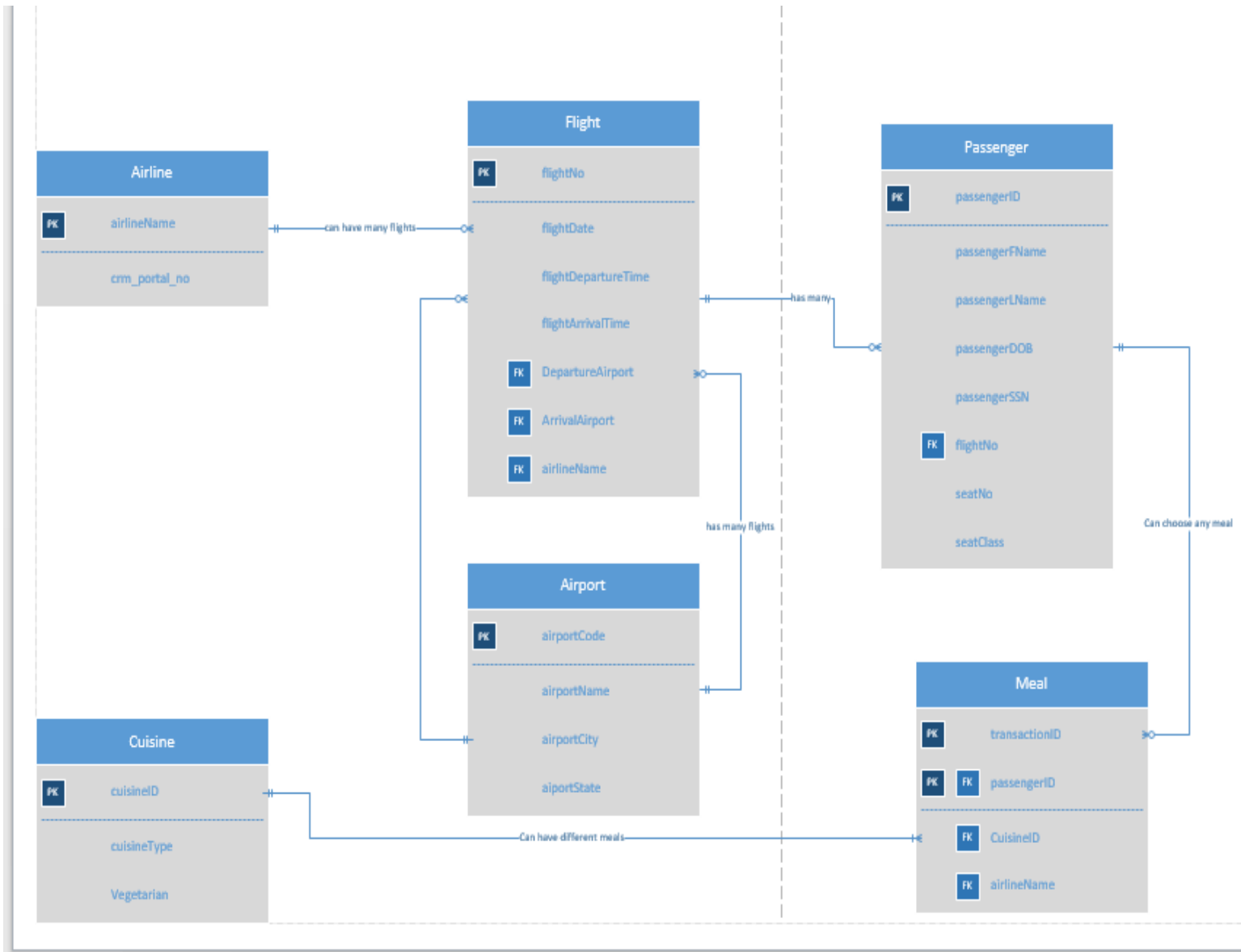
Meal	Meal Preferences for passengers
Transaction ID	Unique for each transaction
Passenger ID	Foreign key/ uniquely identifies passengers
Cuisine ID	Describes the preference of the customers
Airline Name	Name of the airline

Flight	Details of the flight at the airport
--------	--------------------------------------

Flight No.	Primary key, number of the flight
Flight Date	Date of the flight
Flight Departure Time	Departure time of the flight (in hours)
Flight Arrival Time	Arrival time of the flight (in hours)
Departure Airport	Departure airport of the flight
Arrival Airport	Arrival airport of the flight
Airline Name	Name of the airline

Passenger :	Passenger who is taking the flight
Passenger ID	Primary key /uniquely identifies the passenger
PassengerFName	First name of the passenger
PassengerLName	Last name of the passenger
PassengerDOB	Date of birth of the passenger
PassengerSSN	SSN of the passenger
Flight No.	Foreign key, uniquely identifies the flight
Seat No.	Seat number of the passenger
Seat class	Class of the seat

Relational Data Model



Database System Infrastructure

In this project, the tools we have used are from the SQL Server and Microsoft Access. This is because we felt most comfortable with these software and these are covered the most in the course.

Access gives the freedom to customize and add in new entries to various tables with ease, while the SQL server helps us in prioritizing which attributes or tables should come first while creating a database.

In the SQL server we have used various functions like the Create Table function as well as created our main objective using the Create View function. We also used functions like Inner join and conditions to ensure that the correct data was getting filtered.

In Microsoft Access, we used forms and reports to create interfaces and these help us in easier data entry to the data base.

We linked and hence created direct tables in Access using a SQL server to Access link.

SQL - Table Creation and Data Entry

Table Creation - Here we have created the tables pertaining to the Airlines , flights, Meal , Cusines, Airport and passengers details.

```
create table Airline(
airlineName varchar(12) primary key,
crm_portal_no int
)
```

```
create table Cuisine(
cuisineId char(5) primary key,
cuisisneType varchar(10),
Vegetarian char(3)
)
```

```
create table Airport(
airportCode char(5) primary key,
airportName varchar(20),
airportCity varchar(20),
airportState varchar(20)
)
```

```
drop table Flight
create table Flight(
flightNo char(7) primary key,
flightDate date,
flightDepartureTime time,
flightArrivalTime time,
departureAirport char(10),
arrivalAirport char(10),
airlineName varchar(12)
```

```
constraint airport_fk foreign key (departureAirport) references Airport(airportCode),
constraint airport_fk1 foreign key (arrivalAirport) references Airport(airportCode),
constraint airlineName_fk foreign key (airlineName) references Airline(airlineName)
)
```

```
create table Passenger (
passengerID char (10) Primary key,
passengerFName varchar(50),
passengerLName varchar(50),
passengerDOB date,
passengerSSN char(8),
flightNo char (7),
seatNo varchar (3),
seatClass varchar (20),
```

```
constraint flightNo_fk foreign key (flightNo) references Flight(flightNo)
)
```

```
create table Meal (
```


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```
transactionID char(10) primary key,  
passengerID char (10) ,  
CuisineId char(5),  
airlineName varchar(12),  
  
constraint CuisineId_fk1 foreign key(CuisineId) references Cuisine(CuisineId),  
constraint passengerID_fk2 foreign key (passengerID) references Passenger(passengerID)  
  
)  
  
alter table Cuisine  
add constraint yes_no_key check (Vegetarian in ('Yes','No'))
```

Inserting Data into the tables

```
insert into airline values ('Emirates',1)  
insert into airline values ('EgyptAir',2)  
insert into airline values ('AeroFloat',3)  
insert into airline values ('Ethiad',4)  
insert into airline values ('Turkish',5)  
  
insert into cuisine values(1,'Indian','Yes')  
insert into cuisine values(2,'American','Yes')  
insert into cuisine values(3,'Italian','Yes')  
insert into cuisine values(4,'French','No')  
insert into cuisine values(5,'Inter','Yes')  
  
insert into airport values(1,'JFK','NYC','NY')  
insert into airport values(2,'LaGuardia','NYC','NY')  
insert into airport values(3,'Hancock','Syracuse','NY')  
insert into airport values(4,'Kempe','Washington','DC')  
insert into airport values(5,'JFK','Park','MD')  
insert into airport values(6,'LaG','NYC','NY')  
insert into airport values(7,'Han','Syracuse','NY')  
insert into airport values(8,'Kempe','Washington','DC')  
  
insert into flight values(1,'11/23/2018','23:00:11','23:00:11',1,2,'EgyptAir')  
insert into flight values(2,'11/20/2018','11:43:11','15:45:14',2,3,'Emirates')  
insert into flight values(3,'11/27/2018','09:12:55','20:20:00',3,4,'AeroFloat')  
insert into flight values(4,'11/10/2018','13:30:43','15:40:00',4,5,'Ethiad')  
insert into flight values(5,'11/13/2018','13:45:11','19:05:45',1,2,'Turkish')  
insert into flight values(6,'11/24/2018','19:42:55','10:20:00',4,5,'Turkish')  
insert into flight values(7,'11/15/2018','23:50:43','05:40:00',1,5,'Emirates')  
insert into flight values(8,'11/17/2018','03:15:11','09:05:45',3,4,'Turkish')  
  
insert into passenger values(1,'Gaurav','Salvi','05/31/1994',354664,2,'22A','Eco')  
insert into passenger values(2,'Ankita','Singh','01/11/1993',432664,1,'10A','Business')  
insert into passenger values(3,'Vidisha','Badhe','11/22/1994',777836,3,'25B','Eco')  
insert into passenger values(4,'Ayush','Kumar','08/17/1994',654784,4,'19C','Business')  
insert into passenger values(5,'Dinesh','Reddy','09/01/1994',998736,5,'77K','Eco')  
  
insert into Meal values(1,2,1,'Emirates')  
insert into Meal values(2,3,4,'AeroFloat')  
insert into Meal values(3,2,5,'EgyptAir')  
insert into Meal values(4,5,3,'Ethiad')
```

```

insert into Meal values(5,3,2,'Turkish')
insert into Meal values(6,4,1,'Ethiad')
insert into Meal values(7,3,2,'Turkish')
insert into Meal values(8,5,3,'Turkish')
insert into Meal values(9,2,1,'EgyptAir')

```

Passenger Database:

	passengerID	passengerFName	passengerLName	passengerDOB	passengerSSN	flightNo	seatNo	seatClass
1	16	Isha	Havaladar	1996-11-01	994256	3	29K	Eco
2	2	Ankita	Singh	1993-01-11	432664	1	10A	Business
3	3	Vidisha	Badhe	1994-11-22	777836	3	25B	Eco
4	312	Sahil	Bambroo	1993-03-12	43187965	4	12A	Eco
5	4	Ayush	Kumar	1994-08-17	654784	4	19C	Business
6	5	Dinesh	Reddy	1994-09-01	998736	5	77K	Business
7	6	Yashveer Singh	Chauhan	1995-11-18	354666	6	22A	Eco

Flight Database:

	flightNo	flightDate	flightDepartureTime	flightArrivalTime	departureAirport	arrivalAirport	airlineName
1	1	2018-11-23	23:00:11.0000000	23:00:11.0000000	1	2	EgyptAir
2	2	2018-11-20	11:43:11.0000000	15:45:14.0000000	2	3	Emirates
3	3	2018-11-27	09:12:55.0000000	20:20:00.0000000	3	4	AeroFloat
4	4	2018-11-10	13:30:43.0000000	15:40:00.0000000	4	5	Ethiad
5	5	2018-11-13	13:45:11.0000000	19:05:45.0000000	1	2	Turkish
6	6	2018-11-24	19:42:55.0000000	10:20:00.0000000	4	5	Turkish
7	7	2018-11-15	23:50:43.0000000	05:40:00.0000000	1	5	Emirates
8	8	2018-11-17	03:15:11.0000000	09:05:45.0000000	3	4	Turkish

Airline Database

	airlineName	cmr_portal_no
1	AeroFloat	3
2	EgyptAir	2
3	Emirates	1
4	Ethiad	4
5	Turkish	5

Meal Database:

	transactionID	passengerID	CuisineID	airlineName
1	1	2	3	Emirates
2	2	3	4	AeroFloat
3	3	2	5	EgyptAir
4	4	5	3	Ethiad
5	5	3	2	Turkish
6	6	4	1	Ethiad
7	7	3	2	Turkish
8	8	5	3	Turkish
9	9	2	1	EgyptAir

Cuisine Database:

	cuisineID	cuisineType	Vegetarian
1	1	Indian	Yes
2	2	American	Yes
3	3	Italian	Yes
4	4	French	No
5	5	Inter	Yes

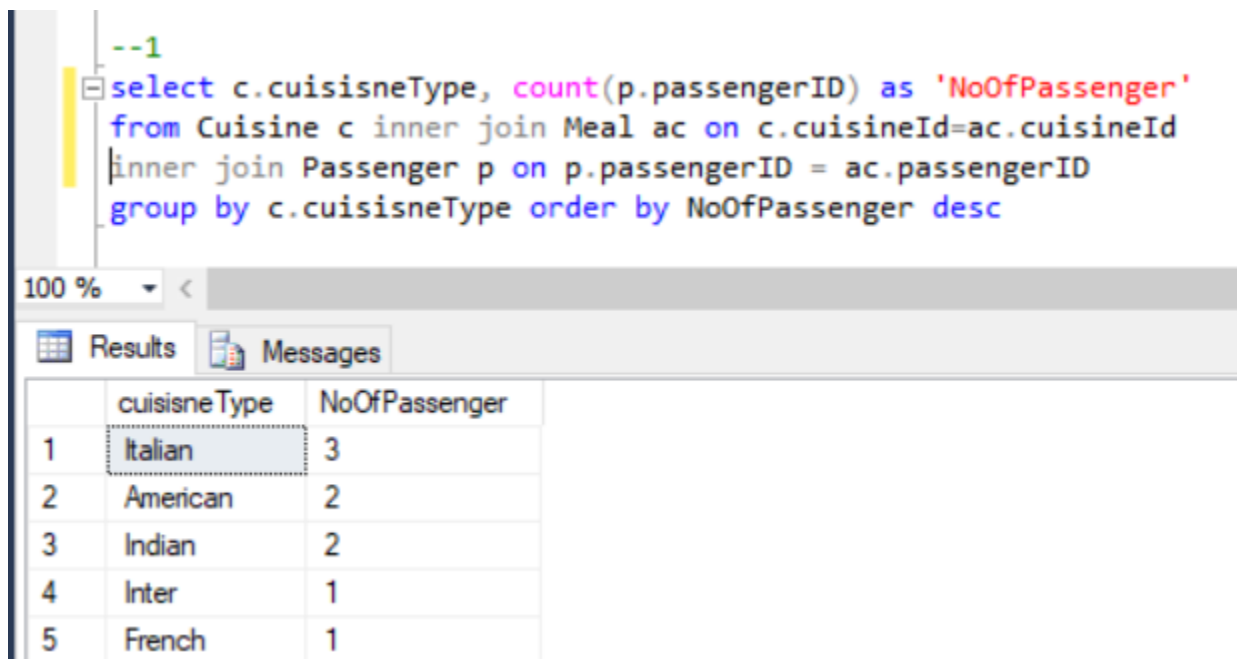
Airport Database:

	airportCode	airportName	airportCity	airportState
1	1	JFK	NYC	NY
2	2	LaGuardia	NYC	NY
3	3	Hancock	Syracuse	NY
4	4	Kempe	Washington	DC
5	5	JFK	Park	MD
6	6	LaG	NYC	NY
7	7	Han	Syracuse	NY
8	8	Kempe	Washington	DC

SQL - Major Data Questions

1. What kind of cuisine is preferred by the passengers?

```
select c.cuisisneType, count(p.passengerID) as 'NoOfPassenger' from Cuisine c inner join Meal ac
on c.cuisineId=ac.cuisineId inner join Passenger p on p.passengerID = ac.passengerID
group by c.cuisisneType order by NoOfPassenger desc
```



The screenshot shows a SQL IDE interface. At the top, a query is written in a multi-line editor. Below the editor, there is a toolbar with a zoom dropdown set to '100 %' and buttons for 'Results' and 'Messages'. The 'Results' tab is active, displaying a table with the query's output. The table has two columns: 'cuisisneType' and 'NoOfPassenger'. The data is sorted in descending order of passenger count. The first row, 'Italian' with 3 passengers, is highlighted with a mouse cursor.

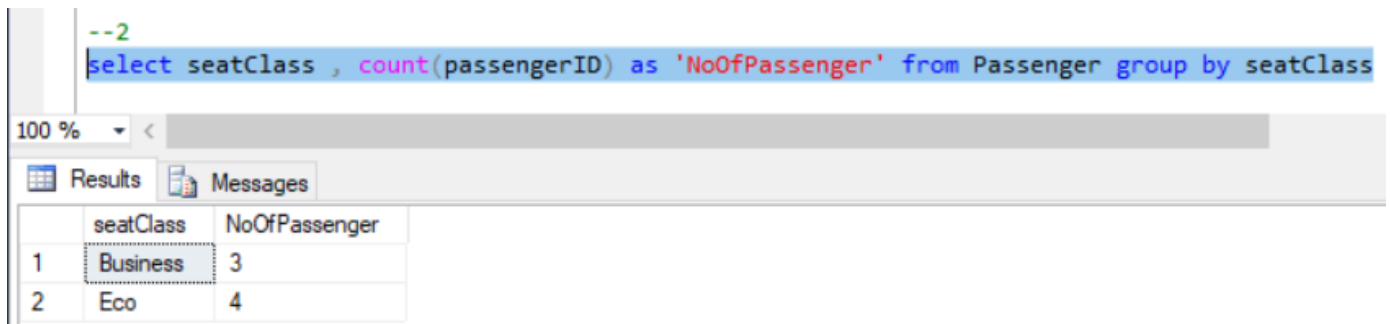
```
--1
select c.cuisisneType, count(p.passengerID) as 'NoOfPassenger'
from Cuisine c inner join Meal ac on c.cuisineId=ac.cuisineId
inner join Passenger p on p.passengerID = ac.passengerID
group by c.cuisisneType order by NoOfPassenger desc
```

	cuisisneType	NoOfPassenger
1	Italian	3
2	American	2
3	Indian	2
4	Inter	1
5	French	1

2. How many customers travel by business and economy class?

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```
select seatClass , count(passengerID) as 'NoOfPassenger' from Passenger group by seatClass
```



The screenshot shows a SQL query execution interface. At the top, a query is entered: `--2`
`select seatClass , count(passengerID) as 'NoOfPassenger' from Passenger group by seatClass`. Below the query, there is a progress bar and a zoom level of 100%. The interface has two tabs: 'Results' and 'Messages'. The 'Results' tab is active, displaying a table with two columns: 'seatClass' and 'NoOfPassenger'. The table contains two rows: row 1 with 'Business' and 3, and row 2 with 'Eco' and 4.

	seatClass	NoOfPassenger
1	Business	3
2	Eco	4

3. Which airline is most preferred by the customers?

```
select a.airlineName, count(p.passengerID)as 'NoOfPassenger'  
from Airline a inner join flight f on f.airlineName=a.airlineName  
inner join Passenger p on p.flightNo = f.flightNo  
group by a.airlineName  
order by NoOfPassenger desc
```

--3

```
select a.airlineName, count(p.passengerID) as 'NoOfPassenger'
from Airline a inner join flight f on f.airlineName=a.airlineName
inner join Passenger p on p.flightNo = f.flightNo
group by a.airlineName
order by NoOfPassenger desc
```

100 %



Results



Messages

	airlineName	NoOfPassenger
1	AeroFloat	2
2	Ethiad	2
3	Turkish	2
4	EgyptAir	1

4. How many customers prefer vegetarian and non-vegetarian food?

```
select c.Vegetarian as 'Is Vegetarian', count(p.passengerID) as 'NoOfPassenger' from Cuisine c
inner join Meal m on m.CuisineId = c.cuisineId inner join Passenger p on p.passengerID =
m.passengerID
group by c.Vegetarian
```



```
--4
select c.Vegetarian as 'Is Vegetarian', count(p.passengerID) as 'NoOfPassenger'
from Cuisine c inner join Meal m on m.CuisineId = c.cuisineId inner join Passenger p on p.passengerID = m.passengerID
group by c.Vegetarian
```

100 % <

Results Messages

	Is Vegetarian	NoOfPassenger
1	No	1
2	Yes	8

5. How many flights arrive and depart from airport?

```
select a.airportName, count(f.departureAirport) as 'Departure', count(f.arrivalAirport) as 'Arrival'
from Airport a inner join Flight f on f.arrivalAirport=a.airportCode
Group by a.airportName
```

```
select a.airportName, count(f.departureAirport) as 'Departure', count(f.arrivalAirport) as 'Arrival'
from Airport a inner join Flight f on f.arrivalAirport=a.airportCode
Group by a.airportName
```

100 % <

Results Messages

	airportName	Departure	Arrival
1	Hancock	1	1
2	JFK	3	3
3	Kempe	2	2
4	LaGuardia	2	2

MS ACCESS – Connection and Interface

The SQL server database was linked to MS Access to create a dynamic interface

The data reflected in Access is as follows.

Passenger Database

dbo_Passenger							
passengerID	passengerFName	passengerLName	passengerDOB	passengerSSN	flightNo	seatNo	seatClass
16	Isha	Havaladar	1996-11-01	994256	3	29K	Eco
2	Ankita	Singh	1993-01-11	432664	1	10A	Business
3	Vidisha	Badhe	1994-11-22	777836	3	25B	Eco
312	Sahil	Bambroo	1993-03-12	43187965	4	12A	Eco
4	Ayush	Kumar	1994-08-17	654784	4	19C	Business
5	Dinesh	Reddy	1994-09-01	998736	5	77K	Business
6	Yashveer Singh	Chauhan	1995-11-18	354666	6	22A	Eco
*							

Flight Database

dbo_Passenger							dbo_Flight						
							flightNo	flightDate	flightDepart	flightArrive	departureAir	arrivalAirpo	airlineName
							1	2018-11-23	23:00:11.000000	23:00:11.000000	1	2	EgyptAir
							2	2018-11-20	11:43:11.000000	15:45:14.000000	2	3	Emirate
							3	2018-11-27	09:12:55.000000	20:20:00.000000	3	4	AeroFlo
							4	2018-11-10	13:30:43.000000	15:40:00.000000	4	5	Ethiad
							5	2018-11-13	13:45:11.000000	19:05:45.000000	1	2	Turkish
							6	2018-11-24	19:42:55.000000	10:20:00.000000	4	5	Turkish
							7	2018-11-15	23:50:43.000000	05:40:00.000000	1	5	Emirate
							8	2018-11-17	03:15:11.000000	09:05:45.000000	3	4	Turkish
							*						

Flight Database

dbo_Passenger	dbo_Flight	dbo_Airline
airlineName	crm_portal_	
AeroFloat	3	
EgyptAir	2	
Emirates	1	
Ethiad	4	
Turkish	5	
*		

Meal Database

dbo_Meal			
transactionId	passengerID	CuisineId	airlineName
1	2	3	Emirates
2	3	4	AeroFloat
3	2	5	EgyptAir
4	5	3	Ethiad
5	3	2	Turkish
6	4	1	Ethiad
7	3	2	Turkish
8	5	3	Turkish
9	2	1	EgyptAir
*			

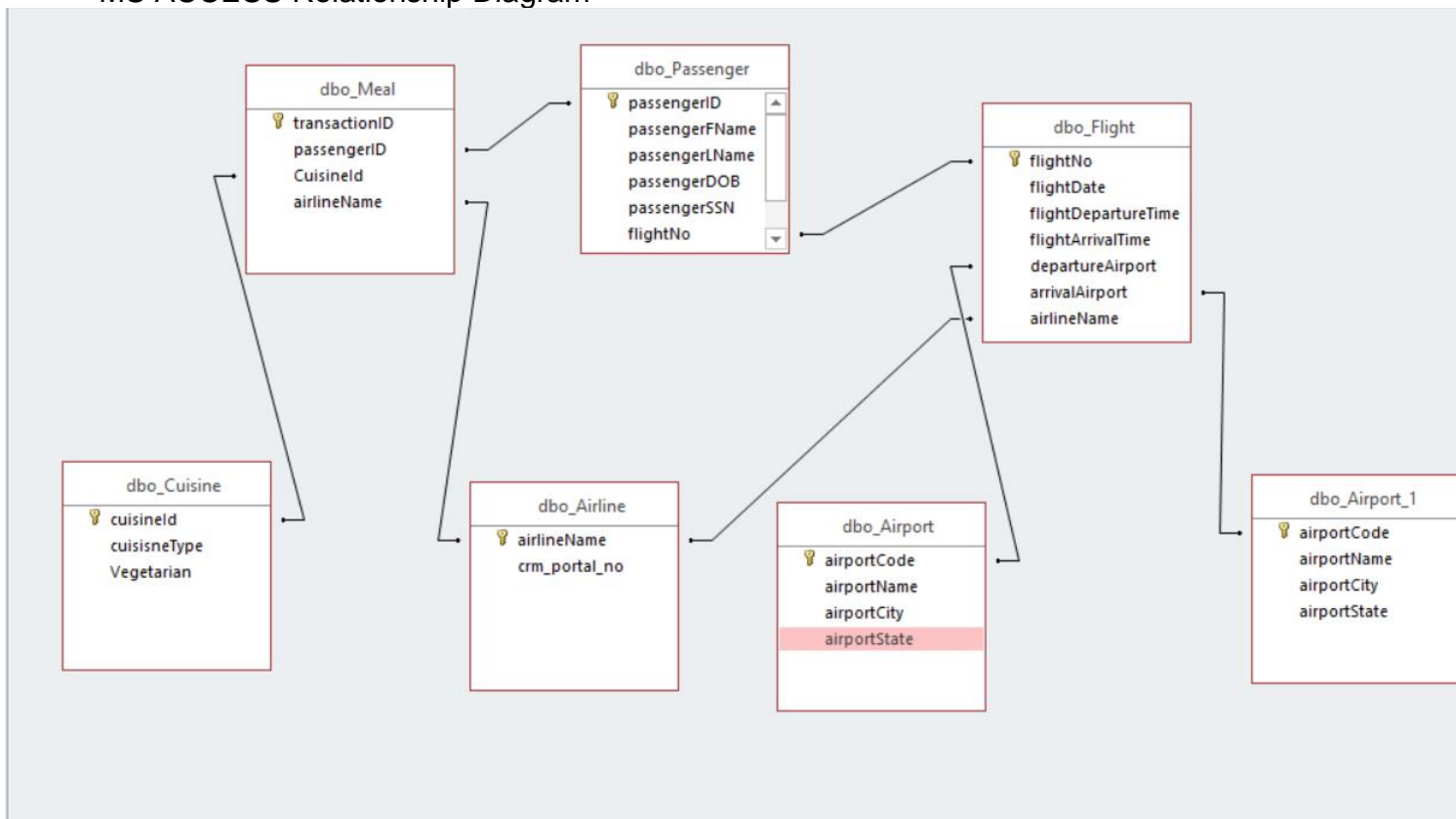
Cuisine Database

dbo_Cuisine			
cuisineId	cuisineType	Vegetarian	
1	Indian	Yes	
2	American	Yes	
3	Italian	Yes	
4	French	No	
5	Inter	Yes	
*			

Airport Database

dbo_Cuisine		dbo_Airport		
airportCode	airportName	airportCity	airportState	
1	JFK	NYC	NY	
2	LaGuardia	NYC	NY	
3	Hancock	Syracuse	NY	
4	Kempe	Washington	DC	
5	JFK	Park	MD	
6	LaG	NYC	NY	
7	Han	Syracuse	NY	
8	Kempe	Washington	DC	
*				

MS ACCESS Relationship Diagram



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Forms

Passenger Form

dbo_Passenger

dbo_Passenger

passengerID

3

passengerFName

Vidisha

passengerLName

Badhe

passengerDOB

1994-11-22

passengerSSN

777836

dbo_Passenger_flg

3

seatNo

25B

seatClass

Eco

dbo_Flight_flightNo

3

flightDate

2018-11-27

flightDepartureTime

09:12:55.0000000

flightArrivalTime

20:20:00.0000000

departureAirport

3

arrivalAirport

4

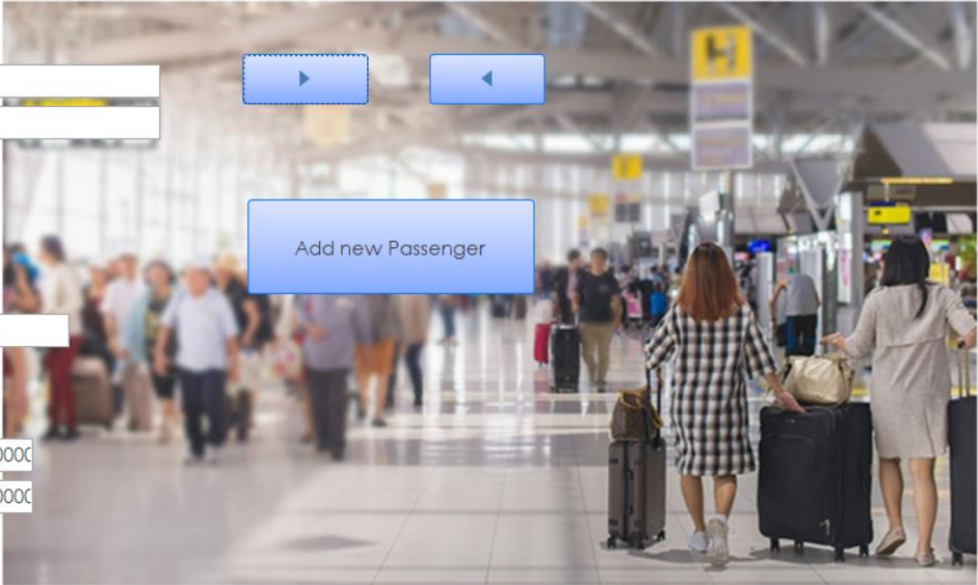
airlineName

AeroFloat

▶

◀

Add new Passenger



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Flight Form

dbo_Passenger | **Flight**

dbo_Flight

Flight Number

Date

Departure Time

Arrival Time

Departure Airport

Arrival Airport

Airline Name

Meal Form

dbo_Meal

transactionID

passengerID

airlineName

dbo_Meal_CuisineID

cuisineType

Vegetarian

Report : Ticket Details

Page 1 of 1

Query for the Report

```
SELECT dbo_Passenger.passengerID, dbo_Passenger.passengerFName,
dbo_Passenger.passengerLName, dbo_Passenger.flightNo, dbo_Passenger.seatNo,
dbo_Passenger.seatClass, dbo_Flight.flightDate, dbo_Flight.flightDepartureTime,
dbo_Flight.flightArrivalTime, dbo_Flight.departureAirport, dbo_Flight.arrivalAirport,
dbo_Flight.airlineName
FROM dbo_Flight INNER JOIN dbo_Passenger ON dbo_Flight.[flightNo] =
dbo_Passenger.[flightNo];
```


Ticket Booking Form and Report


The screenshot shows a web application interface with a header bar containing three tabs: "TICKET INFORMATION" (active), "Ticket Quey", and "dbo_Passenger Query". Below the header, the text "PRINT CUSTOMER TICKET INFORMATION" is displayed in a large, serif font. Centered below this text is a blue rectangular button with a dashed border and a gradient, labeled "Print Ticket".

Passenger ID Pop-up

This screenshot shows the same interface as the previous one, but with a "Passenger ID Pop-up" dialog box open. The dialog has a title bar "Enter Parameter Value" with a question mark and a close button. Inside, it says "Enter Passenger ID" above a text input field. At the bottom are "OK" and "Cancel" buttons. The "Print Ticket" button from the main form is visible in the background, partially obscured by the dialog.

Ticket Preview

r Query

 Ticket Query

Ticket Information

Passenger ID	3
First Name	Vidisha
Last Name	Badhe
Flight No	3
Seat No	25B
Seat Class	Eco

Form Operations

Adding a Record in Passenger Form

The screenshot displays a web application interface for managing passenger records. The top navigation bar includes tabs for 'TICKET INFORMATION', 'Ticket Quey', 'dbo_Passenger Query', 'Ticket Query', and 'dbo_Passenger'. The main header area is labeled 'dbo_Passenger'. The form contains the following fields:

- passengerID
- passengerFName
- passengerLName
- passengerDOB
- passengerSSN
- dbo_Passenger_flg
- seatNo
- seatClass
- dbo_Flight_flightNo
- flightDate
- flightDepartureTime
- flightArrivalTime
- departureAirport
- arrivalAirport
- airlineName

Navigation controls include a right arrow button and a left arrow button. A blue button with a dashed border, labeled 'Add new Passenger', is positioned over the form fields. The background image shows a busy airport terminal with people walking and carrying luggage.

TICKET INFORMATION

Ticket Quey

dbo_Passenger Query

Ticket Query

dbo_Passenger

dbo_Passenger

passengerID

25

passengerFName

Aishwarya

passengerLName

Dabhade

passengerDOB

09/31/1995

passengerSSN

374839

dbo_Passenger_flg

1

seatNo

33B

seatClass

Eco

dbo_Flight_flightNo

1

flightDate

2018-11-23

flightDepartureTime

23:00:11.0000000

flightArrivalTime

23:00:11.0000000

departureAirport

1

arrivalAirport

2

airlineName

EgyptAir

Add new Passenger

Access Update

TICKET INFORMATION		Ticket Query	dbo_Passenger Query	Ticket Query	dbo_Passenger	dbo_Passenger	
passengerID	passengerFName	passengerLName	passengerDOB	passengerSSN	flightNo	seatNo	seatClass
16	Isha	Havaldar	1996-11-01	994256	3	29K	Eco
2	Ankita	Singh	1993-01-11	432664	1	10A	Business
25	Aishwarya	Dabhade	2001-11-24	374839	1	33B	Eco
3	Vidisha	Badhe	1994-11-22	777836	3	25B	Eco
312	Sahil	Bambroo	1993-03-12	43187965	4	12A	Eco
4	Ayush	Kumar	1994-08-17	654784	4	19C	Business
5	Dinesh	Reddy	1994-09-01	998736	5	77K	Business
6	Yashveer Singh	Chauhan	1995-11-18	354666	6	22A	Eco
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SQL Server Update

100 %

	passengerID	passengerFName	passengerLName	passengerDOB	passengerSSN	flightNo	seatNo	seatClass
1	16	Isha	Havaladar	1996-11-01	994256	3	29K	Eco
2	2	Ankita	Singh	1993-01-11	432664	1	10A	Business
3	25	Aishwarya	Dabhade	2001-11-24	374839	1	33B	Eco
4	3	Vidisha	Badhe	1994-11-22	777836	3	25B	Eco
5	312	Sahil	Bambroo	1993-03-12	43187965	4	12A	Eco
6	4	Ayush	Kumar	1994-08-17	654784	4	19C	Business
7	5	Dinesh	Reddy	1994-09-01	998736	5	77K	Business
8	6	Yashveer Singh	Chauhan	1995-11-18	354666	6	22A	Eco

Adding a new Flight

Access Details

TICKET INFORMATION Ticket Query dbo_Passenger Query Ticket Query dbo_Passenger db

dbo_Flight

Flight Number

Date

Departure Time

Arrival Time

Departure Airport

Arrival Airport

Airline Name

Access Update

TICKET INFORMATION		Ticket Quey	dbo_Passenger Query	Ticket Query	dbo_Passenger	dbo_Passenger
flightNo	flightDate	flightDepart	flightArrival	departureAi	arrivalAirpoi	airlineName
1	2018-11-23	23:00:11.000000	23:00:11.000000	1	2	EgyptAir
2	2018-11-20	11:43:11.000000	15:45:14.000000	2	3	Emirates
3	2018-11-27	09:12:55.000000	20:20:00.000000	3	4	AeroFloat
4	2018-11-10	13:30:43.000000	15:40:00.000000	4	5	Ethiad
5	2018-11-13	13:45:11.000000	19:05:45.000000	1	2	Turkish
6	2018-11-24	19:42:55.000000	10:20:00.000000	4	5	Turkish
7	2018-11-15	23:50:43.000000	05:40:00.000000	1	5	Emirates
8	2018-11-17	03:15:11.000000	09:05:45.000000	3	4	Turkish
9	2018-11-23	23:11:34.000000	11:34:45.000000	1	4	Emirates
*						

SQL Server Update

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Results		Messages					
	flightNo	flightDate	flightDepartureTime	flightArrivalTime	departureAirport	arrivalAirport	airlineName
1	1	2018-11-23	23:00:11.0000000	23:00:11.0000000	1	2	EgyptAir
2	2	2018-11-20	11:43:11.0000000	15:45:14.0000000	2	3	Emirates
3	3	2018-11-27	09:12:55.0000000	20:20:00.0000000	3	4	AeroFloat
4	4	2018-11-10	13:30:43.0000000	15:40:00.0000000	4	5	Ethiad
5	5	2018-11-13	13:45:11.0000000	19:05:45.0000000	1	2	Turkish
6	6	2018-11-24	19:42:55.0000000	10:20:00.0000000	4	5	Turkish
7	7	2018-11-15	23:50:43.0000000	05:40:00.0000000	1	5	Emirates
8	8	2018-11-17	03:15:11.0000000	09:05:45.0000000	3	4	Turkish
9	9	2018-11-23	23:11:34.0000000	11:34:45.0000000	1	4	Emirates

Adding Meal for a Passenger

Access Details

dbo_Meal

transactionID

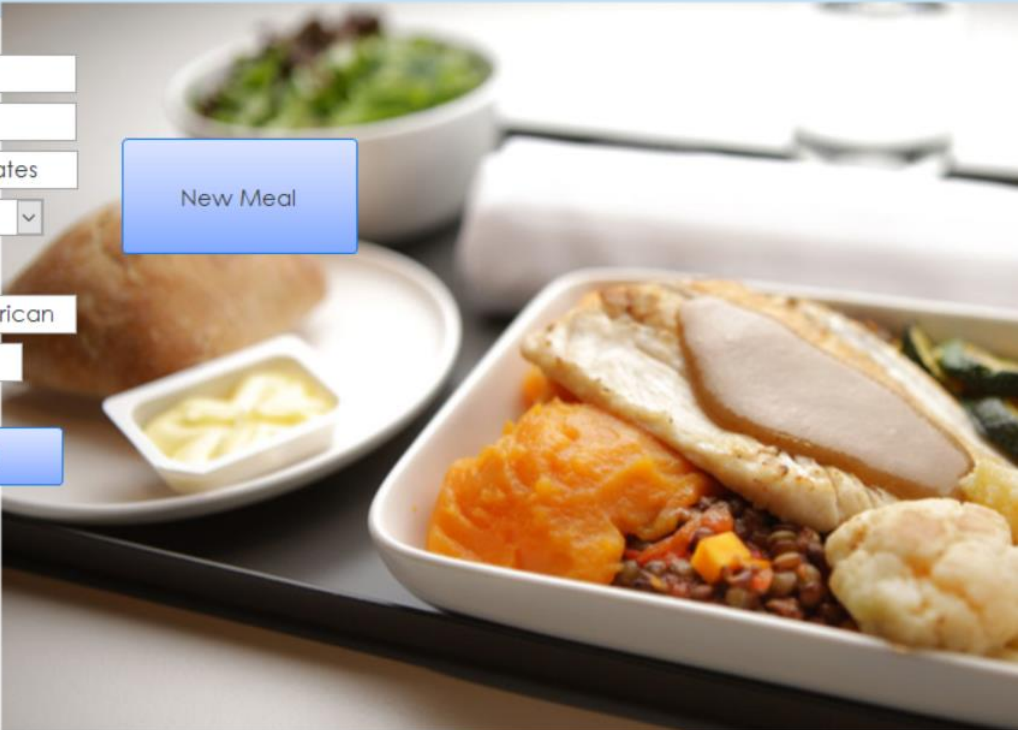
passengerID

airlineName

dbo_Meal_CuisineID

cuisineType

Vegetarian

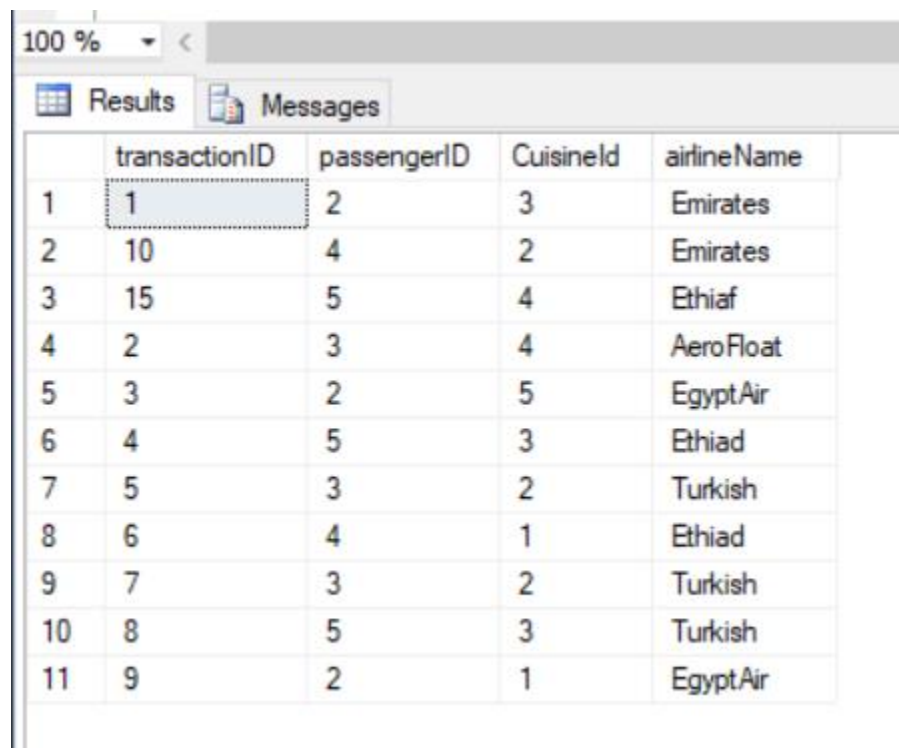


Access Update

transactionID	passengerID	CuisineID	airlineName
1	2	3	Emirates
10	4	2	Emirates
15	5	4	Ethiaf
2	3	4	AeroFloat
3	2	5	EgyptAir
4	5	3	Ethiad
5	3	2	Turkish
6	4	1	Ethiad
7	3	2	Turkish
8	5	3	Turkish
9	2	1	EgyptAir
*			

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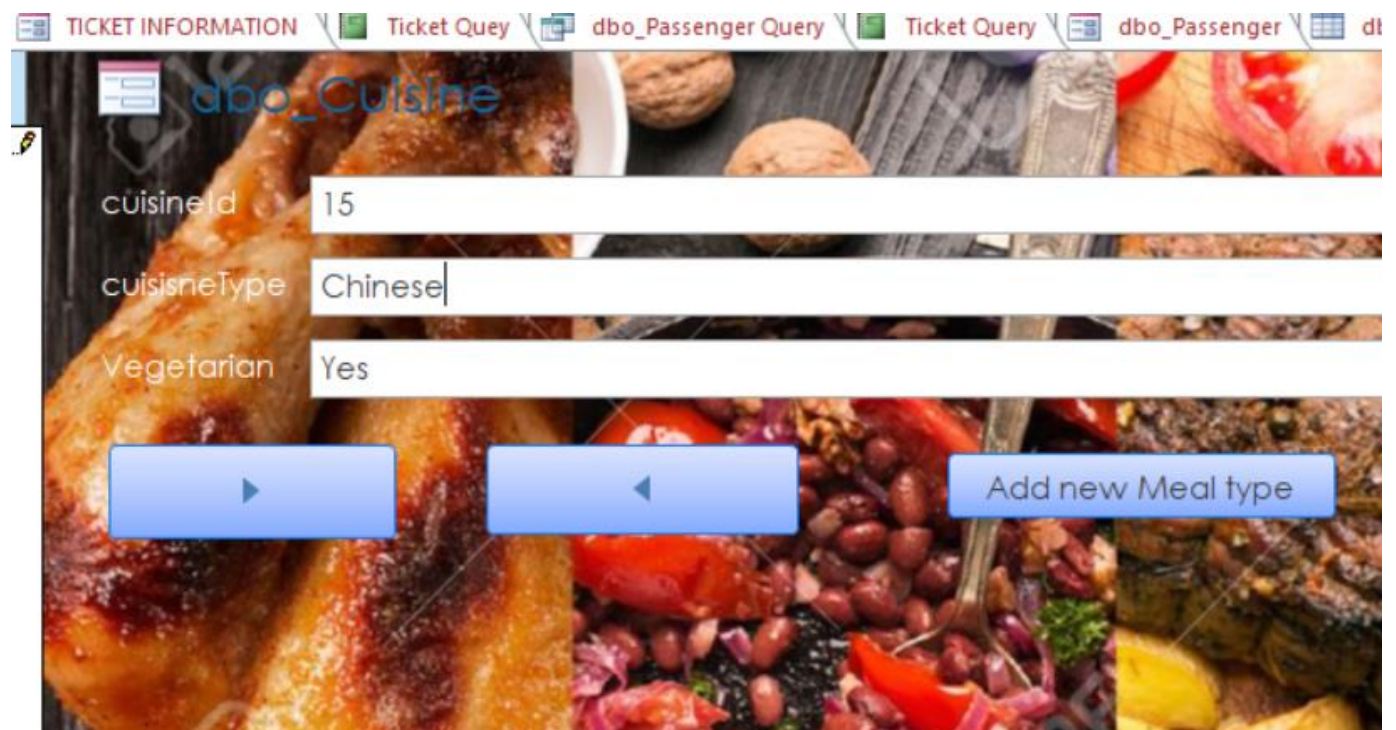
SQL Server Update



	transactionID	passengerID	CuisineID	airlineName
1	1	2	3	Emirates
2	10	4	2	Emirates
3	15	5	4	Ethiaf
4	2	3	4	AeroFloat
5	3	2	5	EgyptAir
6	4	5	3	Ethiad
7	5	3	2	Turkish
8	6	4	1	Ethiad
9	7	3	2	Turkish
10	8	5	3	Turkish
11	9	2	1	EgyptAir

Adding a Cuisine Type

Access Details



TICKET INFORMATION Ticket Quey dbo_Passenger Query Ticket Query dbo_Passenger dl

dbo_Cuisine

cuisineID 15

cuisineType Chinese

Vegetarian Yes

▶ ◀ Add new Meal type

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Access Update

TICKET INFORMATION		Ticket Quey		dbo_Passen	
	cuisineld	cuisisneType	Vegetarian		
	1	Indian	Yes		
	15	Chinese	Yes		
	2	American	Yes		
	3	Italian	Yes		
	4	French	No		
	5	Inter	Yes		
*					

SQL Update

Results		Messages	
	cuisineld	cuisisneType	Vegetarian
1	1	Indian	Yes
2	15	Chinese	Yes
3	2	American	Yes
4	3	Italian	Yes
5	4	French	No
6	5	Inter	Yes

Trigger Execution

We scripted a trigger about the seat class and Airline connection. The specific is that whenever a new passenger is added under the AeroFloat airline, the class will be updated as Economy automatically pertaining to our business rule.

Code:

```
create trigger classUpdate1
on
Passenger
after insert, update
as

declare @seatClass varchar (20),
@airlineName varchar(12);

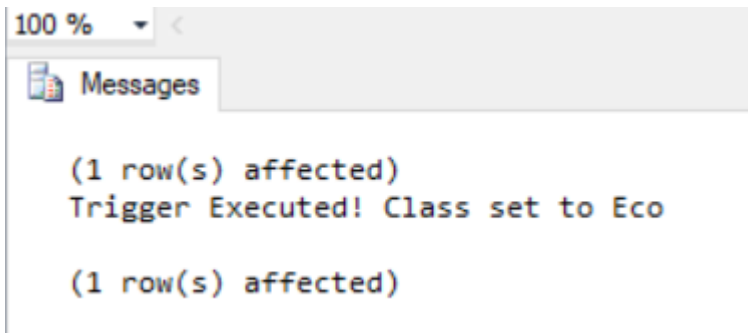
select @seatClass = p.passengerID from inserted p
select @airlineName= a.airlineName from inserted p inner join Flight a on p.flightNo = a.flightNo

begin
if @airlineName = 'AeroFloat'
update Passenger
set seatClass = 'Eco'
where passengerID = @seatClass

print 'Trigger Executed! Class set to Eco'

end

drop trigger classUpdate
insert into passenger values(36, 'Darshi', 'Sheth', '11/05/1996', 9934256, 3, '12K', 'Business')
```



Passenger Table Update:

100 %

Results Messages

	passengerID	passengerFName	passengerLName	passengerDOB	passengerSSN	flightNo	seatNo	seatClass
1	16	Isha	Havaladar	1996-11-01	994256	3	29K	Eco
2	2	Ankita	Singh	1993-01-11	432664	1	10A	Business
3	25	Aishwarya	Dabhade	2001-11-24	374839	1	33B	Eco
4	3	Vidisha	Badhe	1994-11-22	777836	3	25B	Eco
5	312	Sahil	Bambroo	1993-03-12	43187965	4	12A	Eco
6	36	Darshi	Sheth	1996-11-05	9934256	3	12K	Eco
7	4	Ayush	Kumar	1994-08-17	654784	4	19C	Business
8	5	Dinesh	Reddy	1994-09-01	998736	5	77K	Business
9	6	Yashveer Singh	Chauhan	1995-11-18	354666	6	22A	Eco

It can be seen in the table that record that was added, the class was 'Eco' even when the entry added was 'Business'