Flight Management Database

Everything starts from an idea with general information

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Introduction:

Databases are important for any company, organization, hospitals, hotels, etc. The concept of the database is to help “CEO, employer, employee” to reach the information they need easily. That's why we chose the flight management system .Nowadays Air flights are important in our life that should have a database that manages, simplifies and organizes data.

Objective:

Flight management database could have a huge amount of data that is needed for the workers and the passengers. This project was made to give a simple holistic view of the data that could be in terms of flight management, take off from different airports to different destinations.

1. Eases information access
2. Airlines can increase their sales.
3. Track the traveler by knowing if he checked in and boarded for safety reasons.
4. Facilitate online payment for users
5. Facilitate the organization for several parties

Project Description:

The project shows some strongly required information from a person that wants to take a trip somewhere and information that he should know about his trip. Starting from the airline that plane belongs to, the pilot who is driving, the general information about the flight. Moreover, for the employee, they need to know the passengers, a proof of their payment for boarding, and their boarding pass ticket.

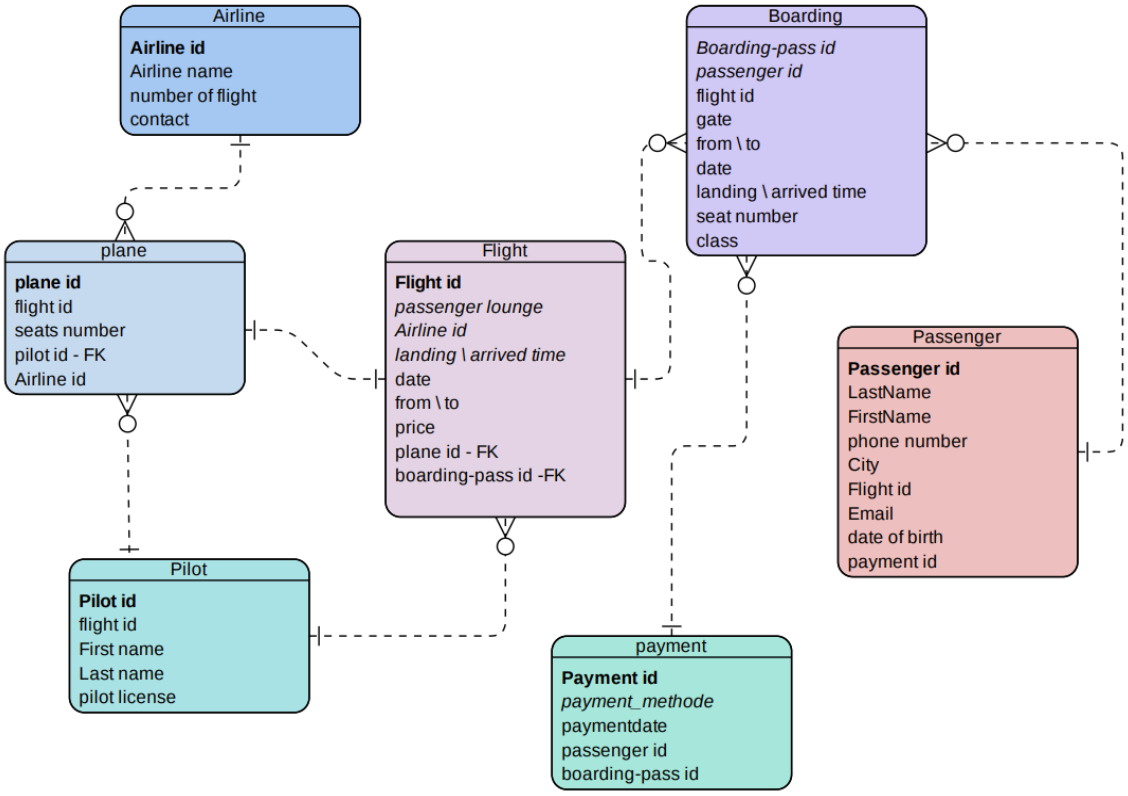
Conceptual Design:

(Phase I)

Initial Business Rules:

1. Each gate has one flight at least in a day
2. Each passenger has 1 seat in a flight not more
3. Numbers of boarding depends on the number of the seats
4. Cancel the ticket before the flight time at least 24 hours

Initial ERD < Entities, Attributes >:



(Phase II)

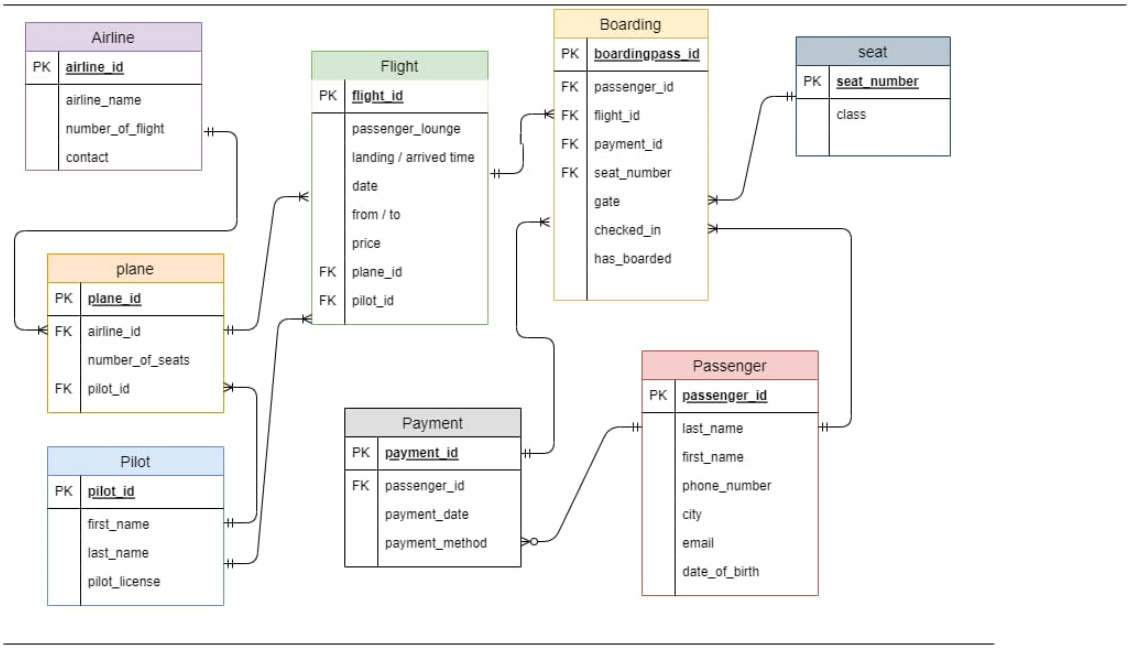
Final Business Rules:

1. Pilots can have at least one flight a day.
2. Airlines should fly at least one plane a day.
3. Planes take at least one flight a day.
4. The boarding pass will contain only one seat.
5. Passengers can have a lot of boarding in different flights.
6. Flights can have a different number of boarding.
7. Each passenger can make many payments.

Trigger:

1. Updating flight will be in “Landing/Arrived Time, Date, Passenger Lounge”
2. Boarding should track passengers if they traveled or not.

Final ERD < Entities, Attributes >:



Normalize the Airport Database:

1. *Table Pilot*

   1NF: Applied, because there are no multivalued attributes, composite attributes or repeating groups.

   2NF: Applied, because there are no partial dependencies.

   3NF: Applied, because there is no transitive dependency.

2. *Table Plane*

   1NF: Applied, because there are no multivalued attributes, composite attributes or repeating groups.

   2NF: Applied, because there are no partial dependencies.

   3NF: Applied, because there is no transitive dependency.

3. *Table Flight*

   1NF: Applied, because there are no multivalued attributes, composite attributes or repeating groups.

   2NF: Applied, because there are no partial dependencies.

   3NF: Applied, because there is no transitive dependency.

4. *Table Passenger*

   1NF: Applied, because there are no multivalued attributes, composite attributes or repeating groups.

   2NF: Applied, because there are no partial dependencies.

   3NF: Applied, because there is no transitive dependency.

5. *Table Payment*

   1NF: Applied, because there are no multivalued attributes, composite attributes or repeating groups.

   2NF: Applied, because there are no partial dependencies.

   3NF: Applied, because there is no transitive dependency.

6. *Table Boarding*

   1NF: Applied, because there are no multivalued attributes, composite attributes or repeating groups.

   2NF: Applied, because there are no partial dependencies.

   3NF: transitive dependency between seat_number and class, so create a new table name Seat that contains seat_number as a primary key.

7. *Table Seat*

   1NF: Applied, because there are no multivalued attributes, composite attributes or repeating groups.

   2NF: Applied, because there are no partial dependencies.

3NF: Applied, because there is no transitive dependency

.

DDL Commands:

DDL Commands were used many times; starting from creating tables, identifying the primary key for each table, foreign key. Using SQL Constraint " Not Null, Unique, Default", Moreover, data types were varied between " Numeric - Int, Decimal -, Text - Varchar (Using different size)-, Date/Time - Date, Time - , SET '' . Furthermore, dropping tables is used many times for many reasons and also truncates tables - if we enter the wrong values it was used to delete them from the table -. At the end the command "select table" to see the last results for the database.

In the appendix section the DDL codes.

DML Commands:

DML Command was strongly needed to complete the data. Insert command used to insert every value in the table, highly needed "Multiple rows" to save time and less repeated rows. Also, an update command was used in trigger to update some information about the flights, there was some delete command used to change the wrong price for a flight, change the payment id for the passenger, and it was used to change the wrong boarding pass id. As a summary for the DML Commands, the most used is select, to see the tables, the data in the table, and it is used to show each detail about the flight, passenger, payment, boarding.

In the appendix section the DML codes.

Codes:

For each query we defined it as “Use flight_management”, in the following order for creating:

Airline table:

```
Use flight_management;
CREATE TABLE airline(
airline_id INT PRIMARY KEY ,
airline_name VARCHAR(100) NOT NULL,
number_of_flights INT,
contact VARCHAR(255) UNIQUE
);
```

Pilot table:

```
CREATE TABLE pilot(
Pilot_id INT PRIMARY KEY,
first_name CHAR(50) NOT NULL,
last_name CHAR(50) NOT NULL,
pilot_license CHAR(255) UNIQUE NOT NULL
);
```

Plane table:

```
CREATE TABLE plane(
plane_id INT PRIMARY KEY,
number_of_seats INT NOT NULL,
pilot_id INT,
airline_id INT,
FOREIGN KEY (pilot_id) REFERENCES pilot(pilot_id),
FOREIGN KEY (airline_id) REFERENCES airline(airline_id)
);
```

Flight table:

```
CREATE TABLE flight(
flight_id INT PRIMARY KEY,
passenger_lounge VARCHAR(60) DEFAULT 'Un defined',
landing_time TIME DEFAULT'00:00:00',
arrived_time TIME DEFAULT'00:00:00',

from_airport VARCHAR(60) NOT NULL,
to_airport VARCHAR(60)NOT NULL,
flight_date DATE NOT NULL,
price DECIMAL(10,2) NOT NULL,
plane_id INT,
pilot_id INT,
FOREIGN KEY (plane_id) REFERENCES plane(plane_id),
FOREIGN KEY (pilot_id) REFERENCES pilot(pilot_id)
);
```

Passenger table:

```
CREATE TABLE passenger(
passenger_id INT PRIMARY KEY,
lastName CHAR(50)NOT NULL,
firstName CHAR(50)NOT NULL,
date_of_birth DATE NOT NULL,
phone_number INT UNIQUE NOT NULL,
city CHAR(50),
email CHAR(100)
);
```

Payment table:

```
CREATE TABLE payment(
payment_id INT PRIMARY KEY,
payment_method CHAR(100) NOT NULL,
payment_date DATE NOT NULL,
passenger_id INT,
```

```
FOREIGN KEY (passenger_id) REFERENCES passenger(passenger_id)
);
```

Seat table:

```
CREATE TABLE seat (
   seat_number VARCHAR(30),
   class VARCHAR(30),

   PRIMARY KEY (seat_number)
);
```

Boarding table:

```
CREATE TABLE boarding(
boardingpass_id INT PRIMARY KEY,
gate INT,
passenger_id INT,
flight_id INT,
payment_id INT,
checked_in VARCHAR(20),
has_boarded VARCHAR(20),
seat_number VARCHAR(30) ,
FOREIGN KEY (seat_number) REFERENCES seat(seat_number),
FOREIGN KEY (passenger_id) REFERENCES passenger(passenger_id),
FOREIGN KEY (flight_id) REFERENCES flight(flight_id),
FOREIGN KEY (payment_id) REFERENCES payment(payment_id)
);
```

Trigger table:

```
CREATE TABLE changed_flights(
 flight_id INT,
 landing_time TIME DEFAULT'00:00:00',
 arrived_time TIME DEFAULT'00:00:00',
 flight_date DATE NOT NULL,
 passenger_lounge VARCHAR(60) DEFAULT 'Un defined'
);
```

```
CREATE TRIGGER before_update_flights
BEFORE UPDATE
ON flight
FOR EACH ROW
INSERT INTO changed_flights(flight_id,landing_time, arrived_time,flight_date,passenger_lounge)
VALUES(OLD.flight_id,OLD.landing_time, OLD.arrived_time, OLD.flight_date, OLD.passenger_lounge);

create table boarding_safe(
boardingpass_id INT,
message VARCHAR(90)
);
DELIMITER $$
CREATE TRIGGER completed_flights
after insert
ON boarding
FOR EACH ROW
begin
if (NEW.checked_in='Checked' AND NEW.has_boarded='Boarded')
THEN
INSERT INTO boarding_safe(boardingpass_id,message)
values(NEW.boardingpass_id,'traveled');
end if;
end $$
```

Insertion Values:

For each query we defined it as “Use flight_management”, in the following order for creating:

Airline:

```
Use flight_management;
insert into airline(airline_id, airline_name, number_of_flights, contact) values
(101, 'Saudi Arabian Airline', 5, 'Email: saudiAr@org.sa, Number: +9963224789135'),
(223, 'FlyNas', 3, 'Email: FlyN_airline@org.sa, Number: +9661596672381');
```

Pilot:

```
insert into pilot (pilot_id, first_name, last_name,pilot_license) values
(0217, 'Rajaa', 'Alharbi', 4110081),
(0411, 'Layan', 'Baroum', 4110083),
(0512, 'Ghadi', 'Nouri', 4110085),
(0806, 'Zainab', 'Tolah', 4110100),
(2212, 'Maryam', 'Alwedyani', 4110155),
(0227, 'Razan', 'Thamer', 4110158),
(0419, 'Tamim', 'Alghamdi', 4110027),
(0922, 'Meshari', 'Alzahrani', 4110096);
```

Plane:

```
insert into plane (plane_id, number_of_seats, pilot_id, airline_id) values
(1005 , 264, 217, 101),
(2007 ,190, 512, 223),
(3011 ,220, 806, 223),
(4015 ,150, 2212, 101),
(5017 ,100, 411,  101),
```

(7356, 193, 0227, 223),

(9692, 250,0922, 101),

(5284, 178, 0419,101);

Flight:

insert into flight (flight_id, passenger_lounge, landing_time, arrived_time,from_airport, to_airport, flight_date,

price, plane_id, pilot_id) values

(1043, '1A', '102500', '193500', 'King Abdu alziz International Airport', 'Albury Airport', '2022-04-14', '3850.88',3011, 0806),

(5189, '2B', '023500', '080000', 'King Abdu alziz International Airport', 'Tokyo International Airport', '2022-05-14', '5700 ', 5017, 0411),

(0982, '7D', '050500', '141000', 'Prince Mohammad Bin Abdulaziz International Airport ','Rome Fiumicino Airport', '2022-05-26', '4010.20 ', 1005, 0217),

(2117, '5C', '200500', '144000', 'King Abdu alziz Intarnational Airport', 'Domodedovo Mikhail Lomonosov International Airport', '2022-05-13', '2750 ', 2007, 0512),

(3354, '3E', '061000', '115500', 'King Abdu alziz Intarnational Airport', 'Newark International Airport', '2022-08-20', '4100.35 ', 4015, 2212),

(2268, '7B', '113000', '031500', 'King Abdu alziz Intarnational Airport', ' Vancouver International Airport', '2022-05-13', '7410.75', 7356, 0227),

(6507, '9A', '154500', '083000', 'King Khalid International Airport', 'Geneva Airport', '2022-06-28', '4330.65 ', 5284, 0419),

(4186, '2F', '061500', '014500', 'Bahrain International Airport', 'Athens International Airport', '2022-07-11', '2980', 9692, 0922);

Passenger:

insert into passenger (passenger_id, lastName, firstName, phone_number, city, email, date_of_birth) values

(1003758976, 'Aljuhani', 'Fahad', 0547166212, 'Medina', 'AljuhaniF@gmail.com', '1992-03-15'),

(1174921729, 'Alharbi', 'Lama', 0551378284, 'Medina', 'LamaHrb@gmail.com', '1997-11-06'),

(1040432195, 'Akbar', ' Waseem', 0542807390, ' Jeddah', 'Waseem98@hotmail.com', '1998-05-22'),

(1110952865, 'Alwaleed', 'Jehan', 0531810063, 'Jeddah', 'AlwaleedJehan@hotmail.com', '2000-12-18'),

(1000277715, 'Alsalem', 'Anas', 0561632615, ' Jeddah', 'Alsalem.Anas@gmail.com', '1988-07-19'),

(1012761134, 'Adnan', 'Altaf', 0558666579, ' Jeddah', 'AltafAD@gmail.com', '1994-06-09'),

(1509971883, 'Aldeeb', 'Saleh', 0581737821, 'Jeddah', 'Aldeebssd@gmail.com', '1989-06-11'),

(1249623525, 'Almena', 'Tarneem', 0555284517 , 'Riyadh', 'trnemena@gmail.com', '1992-08-27'),

(1979826959, 'Al Qurashi', 'Rakan', 0568264959, 'Khobar', 'rakanqrshi@gmail.com', '1979-11-07');

Payment:

insert into payment(payment_id, payment_method,payment_date, passenger_id) values

(51, 'Mastercard', '2022-08-02', 1040432195), /*Jed - NY, Waseem*/

(61, 'Apple pay', '2022-05-13', 1003758976),/*med - Italy, Fahad*/

(84, 'Mada', '2022-04-30', 1000277715),/*Jed - Russ, Anas*/

(34, 'Visa', '2022-04-04', 1110952865),/*Jed - Astra, jehan*/

(93, 'Apple pay', '2022-05-01', 1012761134),/*Jed- JPN, Altaf*/

(14, 'Mada', '2022-05-24', 1174921729), /*Med - Italy, lama*/

(44, 'Mada', '2022-04-08', 1509971883),/*Jed - CND, Saleh*/

(18, 'Apple pay', '2022-04-22', 1249623525),/*RDH - SWTZ, Tarneem*/

(62, 'Visa', '2022-05-11', 1979826959);/*KBR - GRC, Rakan*/

Seat:

insert into seat (seat_number, class) values

('13A', 'Economy Class'),

('4B','First Class'),

('35C', 'Business Class'),

('7D', 'Economy Class'),

('28A', 'Business Class'),

('44B', 'First Class'),

('20C', 'Business Class'),

('49D', 'Economy Class'),

('12E', 'First Class');

Boarding:

insert into boarding (boardingpass_id, gate, passenger_id, flight_id, payment_id, checked_in,

has_boarded,seat_number) values

(8739, 1, 1110952865 , 1043, 34, 'Checked', 'Boarded','4B'), /*Jed - ASTR, jehan*/

(4186, 2, 1012761134 , 5189, 93, 'Checked', 'Did not Boarded','35C'), /*Jed - JPN, Altaf*/

(3488, 5, 1040432195, 3354, 51, 'Checked', 'Boarded','12E'),/*Jed - NY, Waseem*/

(2343, 7, 1003758976, 982, 61, 'Checked', 'Boarded','12E'), /*Med - Italy, Fahad*/

(5266, 3, 1000277715, 2117, 84, 'Checked', 'Boarded','49D'),/*Jed - Rus, Anas*/

(6450, 7, 1174921729, 982, 14, 'Did not checked', 'Did not Boarded','44B'), /*Med - Italy, Lama*/

(6382, 7, 1509971883, 2268, 44, 'Checked', 'Boarded','49D'),/*Jed-Cnd, Saleh*/

(8512, 9, 1249623525, 6507, 18, 'Did not checked', 'Did not Boarded','44B'),/*Rdh - Swtz, Tarneem*/

(7002, 2, 1979826959, 4186, 62, 'Checked', 'Boarded','7D');/*Khb - Grc, Rakan*/

Trigger:

```
update flight
set landing_time = '113000',
arrived_time = '200000',
flight_date = '2022-04-14',
passenger_lounge = '3A'
where flight_id = 1043;

update flight
set landing_time = '145000',
arrived_time = '092000',
flight_date = '2022-06-28',
passenger_lounge = '9C'
where flight_id = 6507;
```

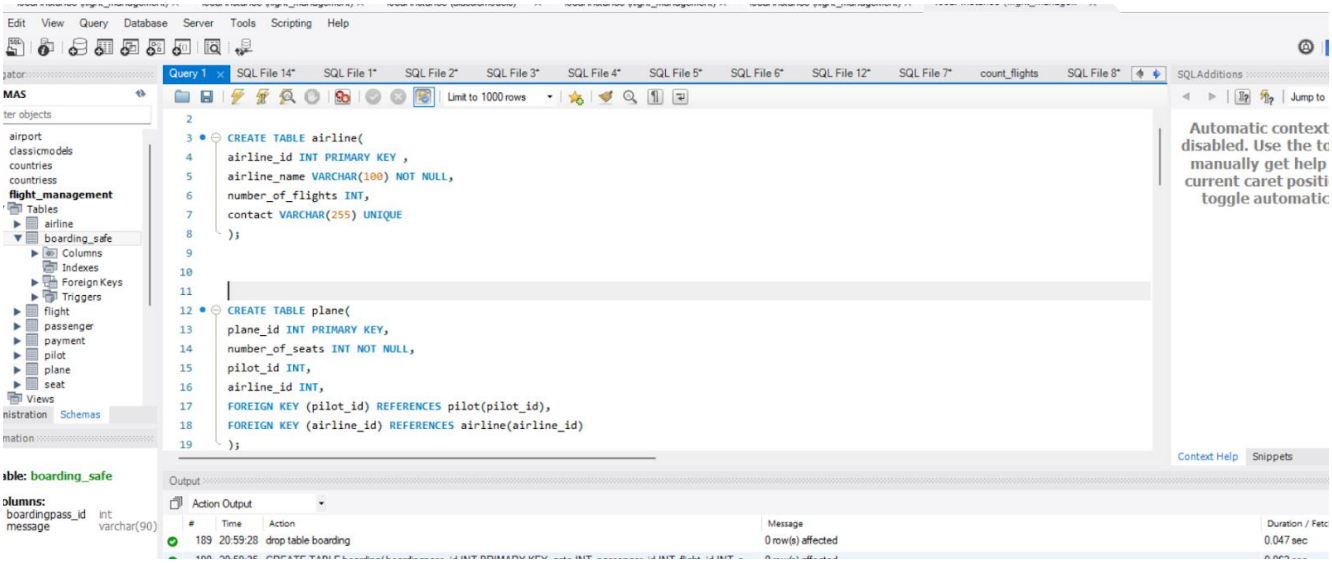
Show & Select:

```
show tables;
show triggers;
select*from airline;
select*from pilot;
select*from plane;
select*from flight;
select*from passenger;
```

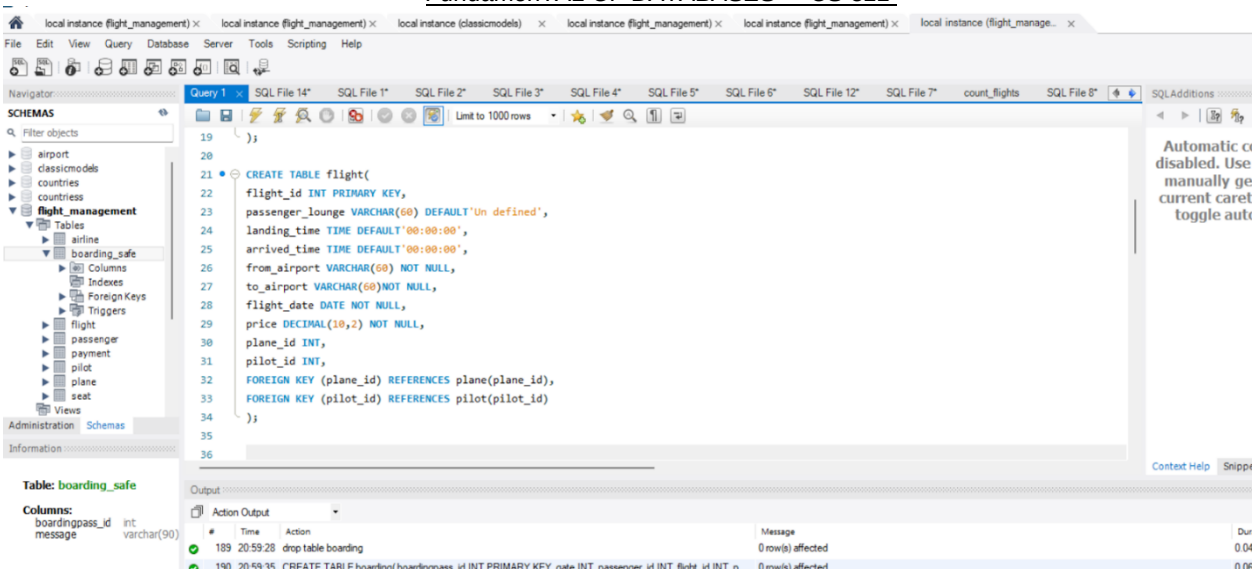
```
select*from payment;

select*from boarding;

select*from seat;

select*from changed_flights;

select*from boarding_safe;
```

Appendix - Code <DDL Commands>

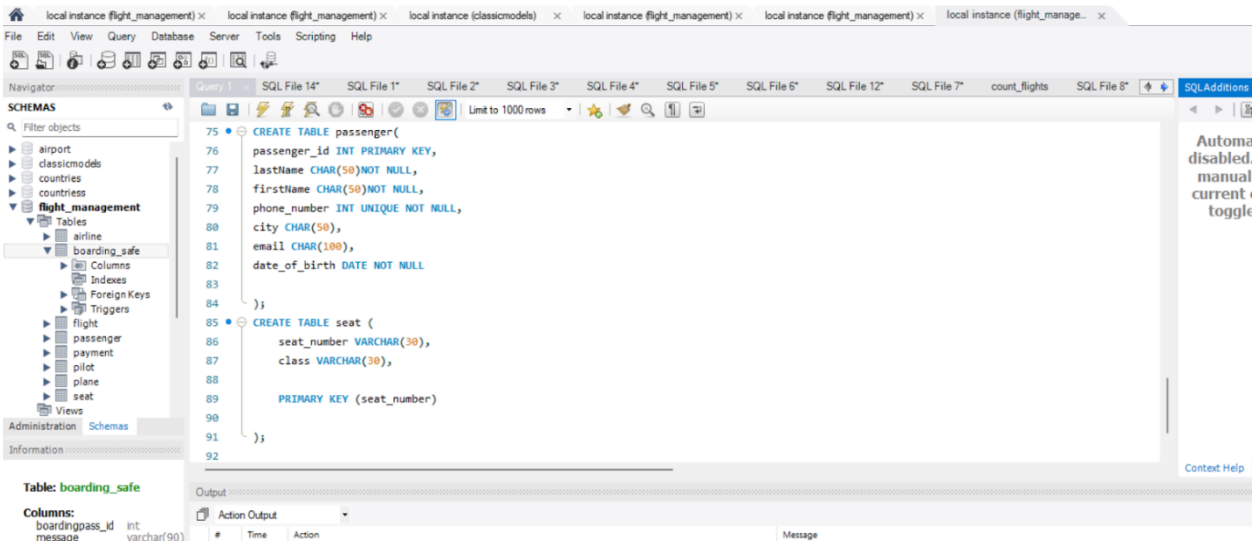
Airline and Plane table:



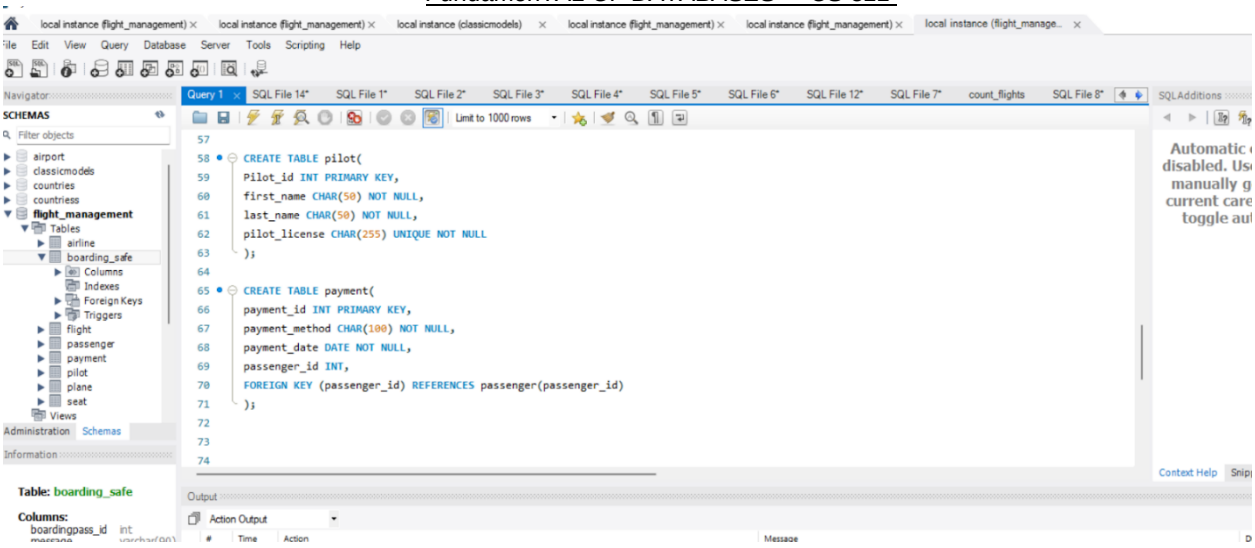
Flight table:



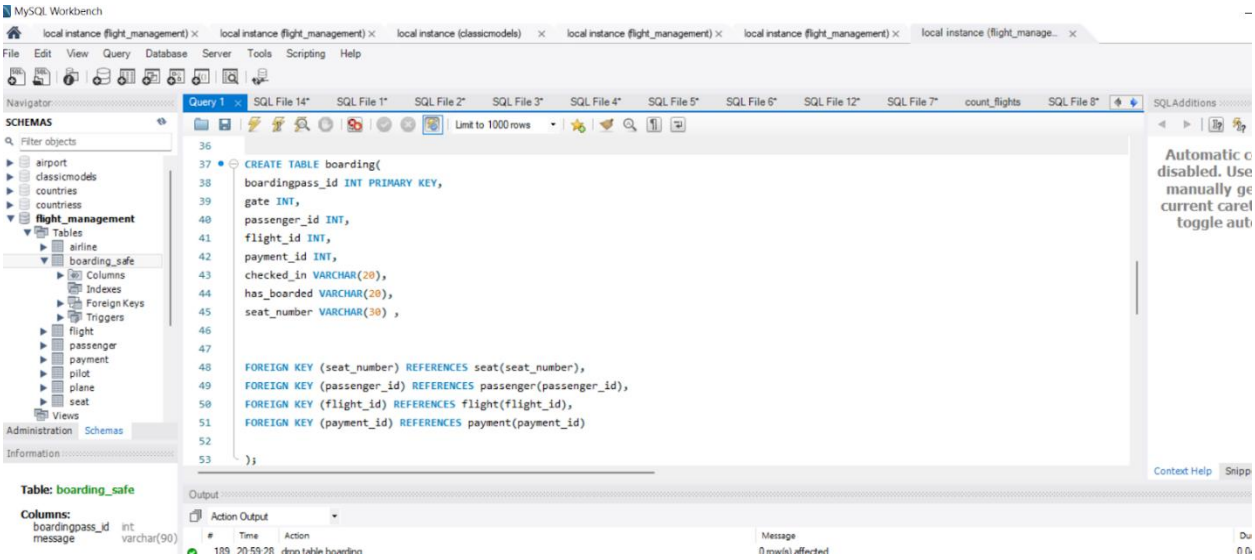
Passenger and Seat table:



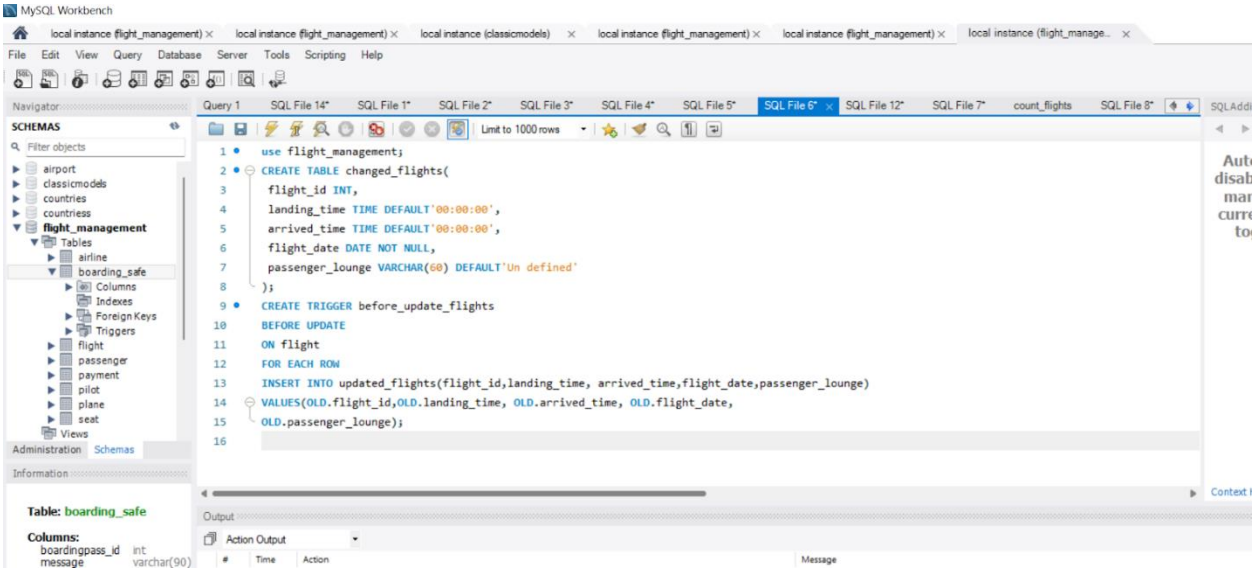
Pilot and Payment table:



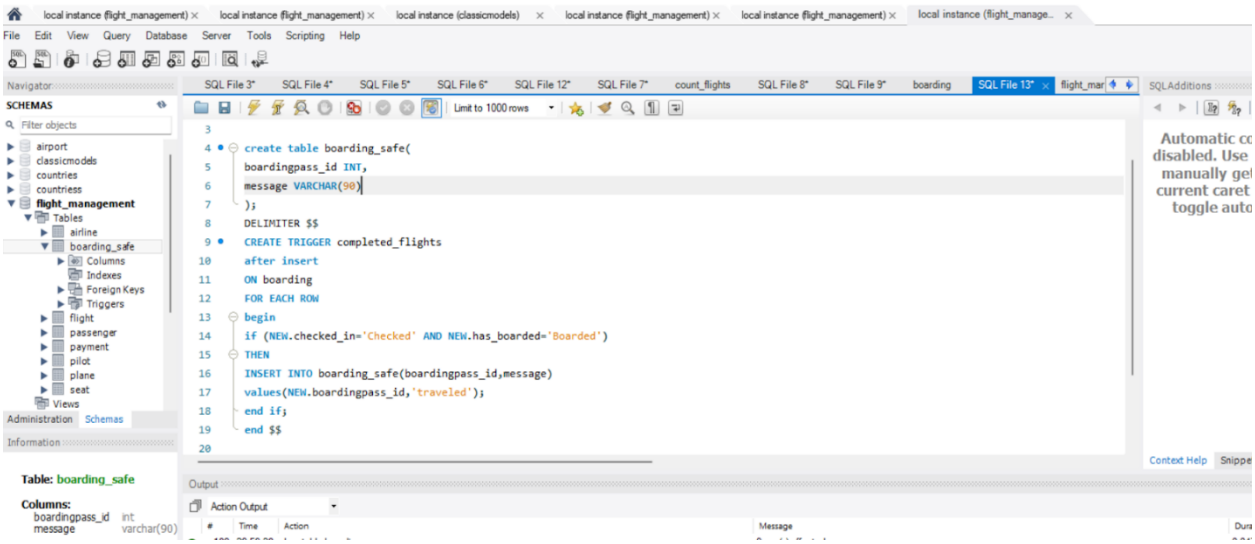
Boarding table:



Trigger table(1):

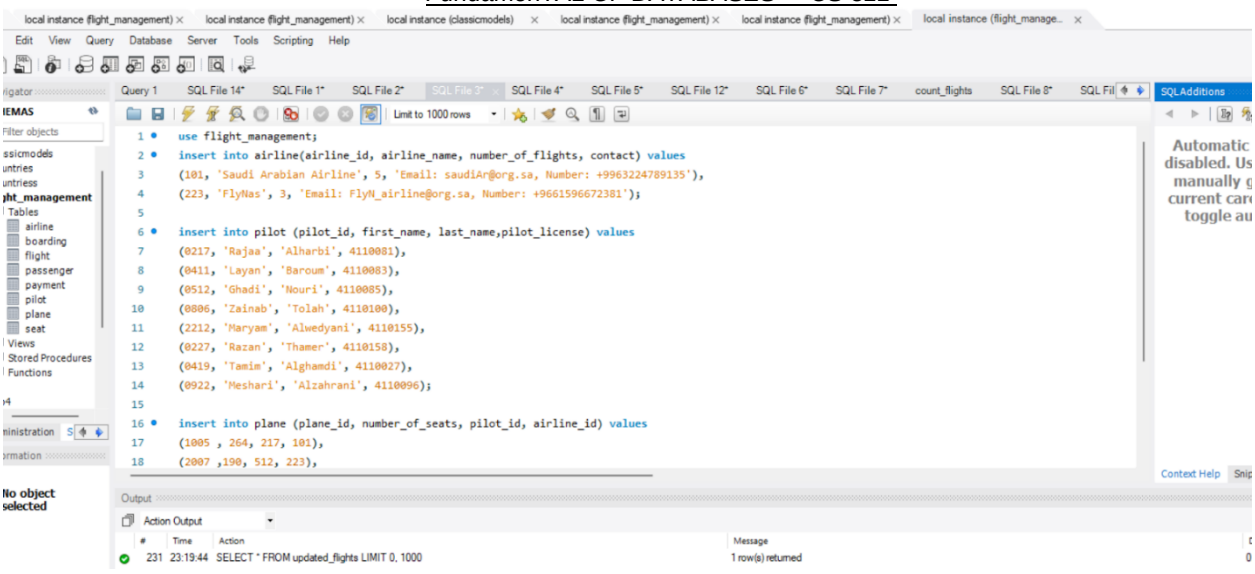


Trigger table(2):



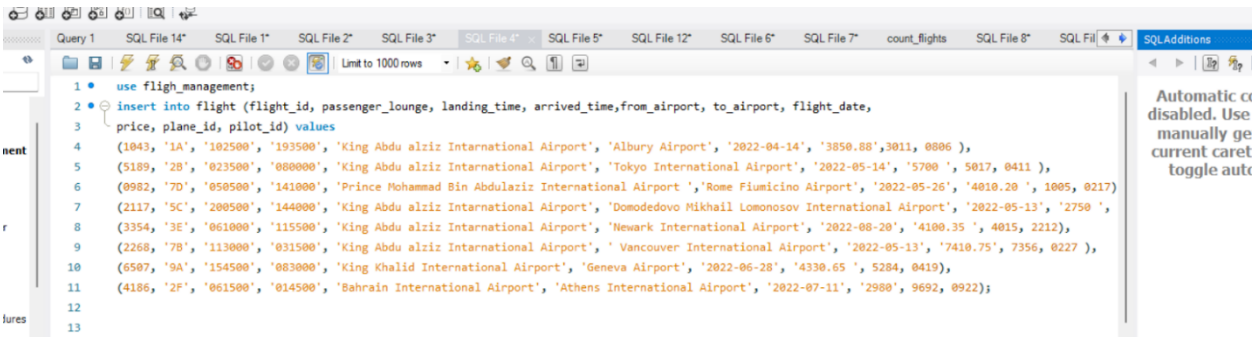
Appendix - Output <DML Commands>

Insert data:



```
use flight_management;
insert into airline(airline_id, airline_name, number_of_flights, contact) values
(101, 'Saudi Arabian Airline', 5, 'Email: saudiAr@org.sa, Number: +9963224789135'),
(223, 'FlyNas', 3, 'Email: FlyN_airline@org.sa, Number: +9661596672381');

insert into pilot (pilot_id, first_name, last_name,pilot_license) values
(0217, 'Rajaa', 'Alharbi', 4110081),
(0411, 'Layan', 'Baroum', 4110083),
(0512, 'Ghadi', 'Nouri', 4110085),
(0806, 'Zainab', 'Tolah', 4110100),
(2212, 'Maryam', 'Alwedyani', 4110155),
(0227, 'Razan', 'Thamer', 4110158),
(0419, 'Tamim', 'Alghamdi', 4110027),
(0922, 'Meshari', 'Alzahrani', 4110096);

insert into plane (plane_id, number_of_seats, pilot_id, airline_id) values
(1005 , 264, 217, 101),
(2007 ,190, 512, 223),
```

```
insert into plane (plane_id, number_of_seats, pilot_id, airline_id) values
(1005 , 264, 217, 101),
(2007 ,190, 512, 223),
(3011 ,220, 806, 223),
(4015 ,150, 2212, 101),
(5017 ,100, 411, 101),
(7356, 193, 0227, 223),
(9692, 250,0922, 101),
(5284, 178, 0419,101);
```



```
use fligh_management;
insert into flight (flight_id, passenger_lounge, landing_time, arrived_time,from_airport, to_airport, flight_date,
price, plane_id, pilot_id) values
(1043, '1A', '102500', '193500', 'King Abdu alziz Intarnational Airport', 'Albury Airport', '2022-04-14', '3850.88',3011, 0806 ),
(5189, '2B', '023500', '080000', 'King Abdu alziz Intarnational Airport', 'Tokyo International Airport', '2022-05-14', '5700 ', 5017, 0411 ),
(0982, '7D', '050500', '141000', 'Prince Mohammad Bin Abdulaziz International Airport ','Rome Fiumicino Airport', '2022-05-26', '4010.20 ', 1005, 0217),
(2117, '5C', '200500', '144000', 'King Abdu alziz Intarnational Airport', 'Domodedovo Mikhail Lomonosov International Airport', '2022-05-13', '2750 ',
(3354, '3E', '061000', '115500', 'King Abdu alziz Intarnational Airport', 'Newark International Airport', '2022-08-20', '4100.35 ', 4015, 2212),
(2268, '7B', '113000', '031500', 'King Abdu alziz Intarnational Airport', ' Vancouver International Airport', '2022-05-13', '7410.75', 7356, 0227 ),
(6507, '9A', '154500', '083000', 'King Khalid International Airport', 'Geneva Airport', '2022-06-28', '4330.65 ', 5284, 0419),
(4186, '2F', '061500', '014500', 'Bahrain International Airport', 'Athens International Airport', '2022-07-11', '2980', 9692, 0922);
```

```
insert into passenger (passenger_id, lastName, firstName, phone_number, city, email, date_of_birth)
values
(1003758976, 'Aljuhani', 'Fahad', 0547166212, 'Medinah', 'AljuhaniF@gmail.com', '1992-03-15' ),
(1174921729, 'Alharbi', 'Lama', 0551378284, 'Medinah', 'LamaHrb@gmail.com', '1997-11-06'),
(1040432195, 'Akbar', ' Waseem', 0542807390, ' Jeddah', 'Waseem98@hotmail.com', '1998-05-22'),
(1110952865, 'Alwaleed', 'Jehan', 0531810063, 'Jeddah', 'AlwaleedJehan@hotmail.com', '2000-12-18' ),
(1000277715, 'Alsalem', 'Anas', 0561632615, ' Jeddah', 'Alsalem.Anas@gmail.com', '1988-07-19'),
(1012761134, 'Adnan', 'Altaf', 0558666579, ' Jeddah', 'AltafAD@gmail.com', '1994-06-09'),
(1509971883, 'Aldeeb', 'Saleh', 0581737821, 'Jeddah', 'Aldeebssd@gmail.com', '1989-06-11'),
(1249623525, 'Almena', 'Tarneem', 0555284517 , 'Riyadh', 'trnemena@gmail.com', '1992-08-27'),
(1979826959, 'Alqurashi', 'Rakan', 0568264959, 'Khobar', 'rakanqrshi@gmail.com', '1979-11-07');
```

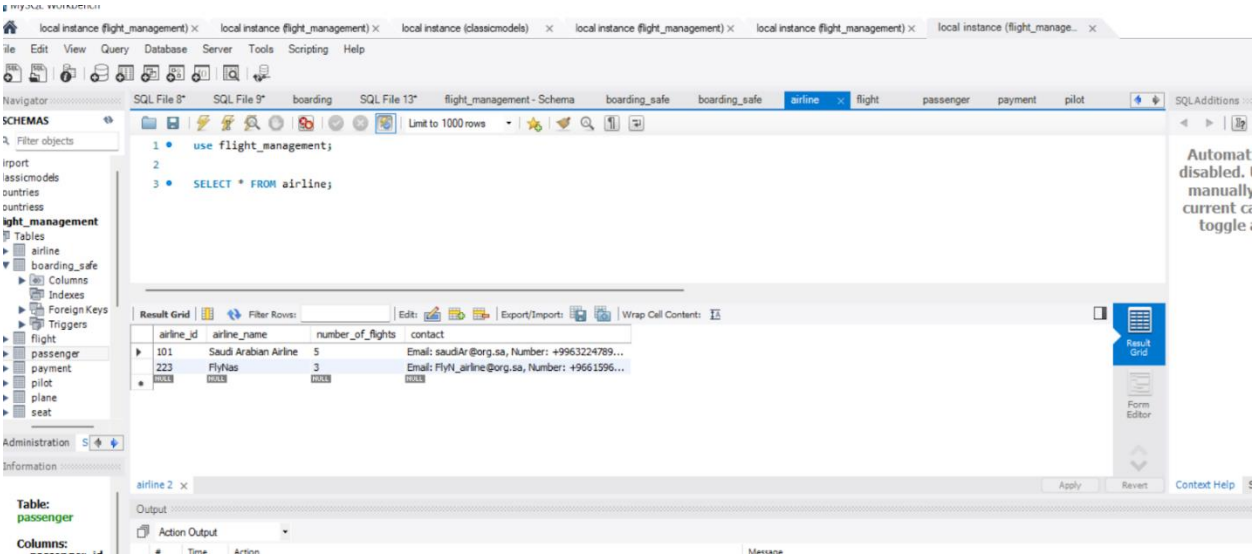
```
use flight_management;
insert into boarding (boardingpass_id, gate, passenger_id, flight_id, payment_id, checked_in,
has_boarded,seat_number) values
(8739, 1, 1110952865 , 1043, 34, 'Checked', 'Boarded','4B'), /*Jed - ASTR, jehan*/
(4186, 2, 1012761134 , 5189, 93, 'Checked', 'Did not Boarded','35C'), /*Jed - JPN, altaf*/
(3488, 5, 1040432195, 3354, 51, 'Checked', 'Boarded','12E'),/*Jed - NY, Waseem*/
(2343, 7, 1003758976, 982, 61, 'Checked', 'Boarded','12E'), /*Med - italy, Fahad*/
(5266, 3, 1000277715, 2117, 84, 'Checked', 'Boarded','49D'),/*Jed - Rus, Anas*/
(6450, 7, 1174921729, 982, 14, 'Did not checked', 'Did not Boarded','44B'), /*Med - italy, Lama*/
(6382, 7, 1509971883, 2268, 44, 'Checked', 'Boarded','49D' ),/*Jed-Cnd, Saleh*/
(8512, 9, 1249623525, 6507, 18, 'Did not checked', 'Did not Boarded','44B'),/*Rdh - Swtz, Tarneem*/
(7002, 2, 1979826959, 4186, 62, 'Checked', 'Boarded','7D');/*Khb - Grc, Rakan*/
```

```
insert into payment(payment_id, payment_method,payment_date, passenger_id) values
(51, 'Mastercard', '2022-08-02', 1040432195 ), /*jed - NY, waseem*/
(61, 'Apple pay', '2022-05-13', 1003758976),/*med - italy, fahad*/
(84, 'Mada', '2022-04-30', 1000277715),/*jed - rus, anas*/
(34, 'Visa', '2022-04-04', 1110952865),/*jed - astr, jehan*/
(93, 'Apple pay', '2022-05-01', 1012761134),/*jed- jpn, altaf*/
(14, 'Mada', '2022-05-24', 1174921729 ), /*Med - Italy, lama*/
(44, 'Mada', '2022-04-08', 1509971883),/*Jed - CND, Saleh*/
(18, 'Apple pay', '2022-04-22', 1249623525),/*RDH - SWTZ, Tarneem*/
(62, 'Visa', '2022-05-11', 1979826959);/*KBR - GRC, Rakan*/
```

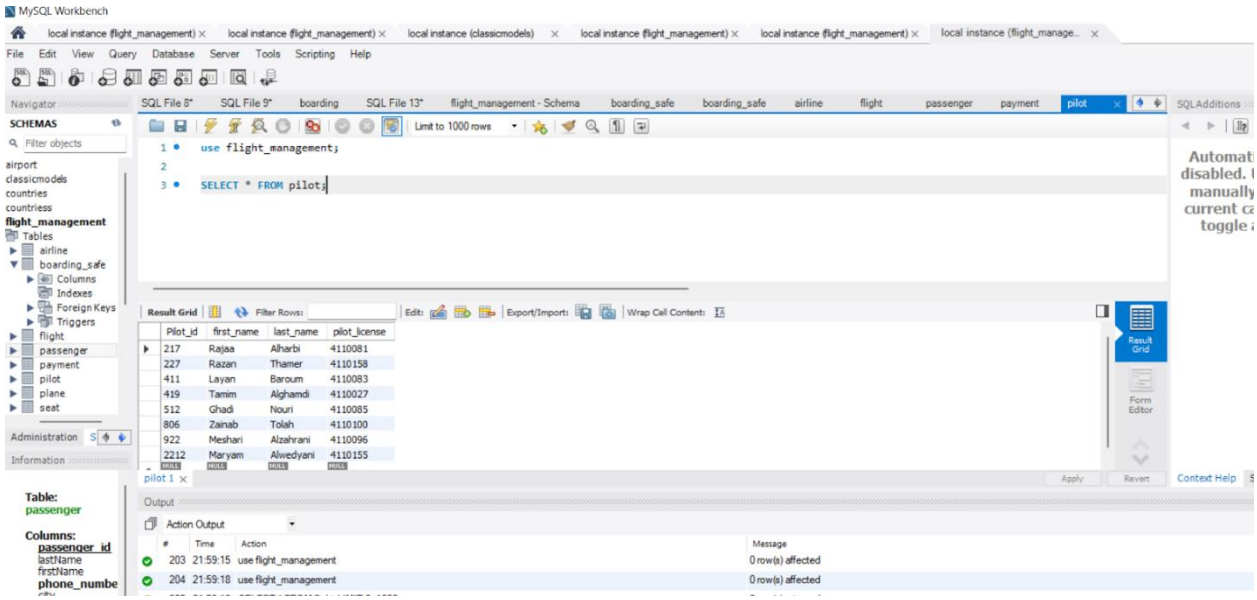
```
insert into seat (seat_number, class) values
('13A', 'Economy Class' ),
('4B','First Class' ),
('35C', 'Business Class'),
('7D', 'Economy Class'),
('28A', 'Business Class'),
('44B', 'First Class'),
('20C', 'Business Class'),
('49D', 'Economy Class'),
('12E', 'First Class');
```

Retrieve all data by SELECT:

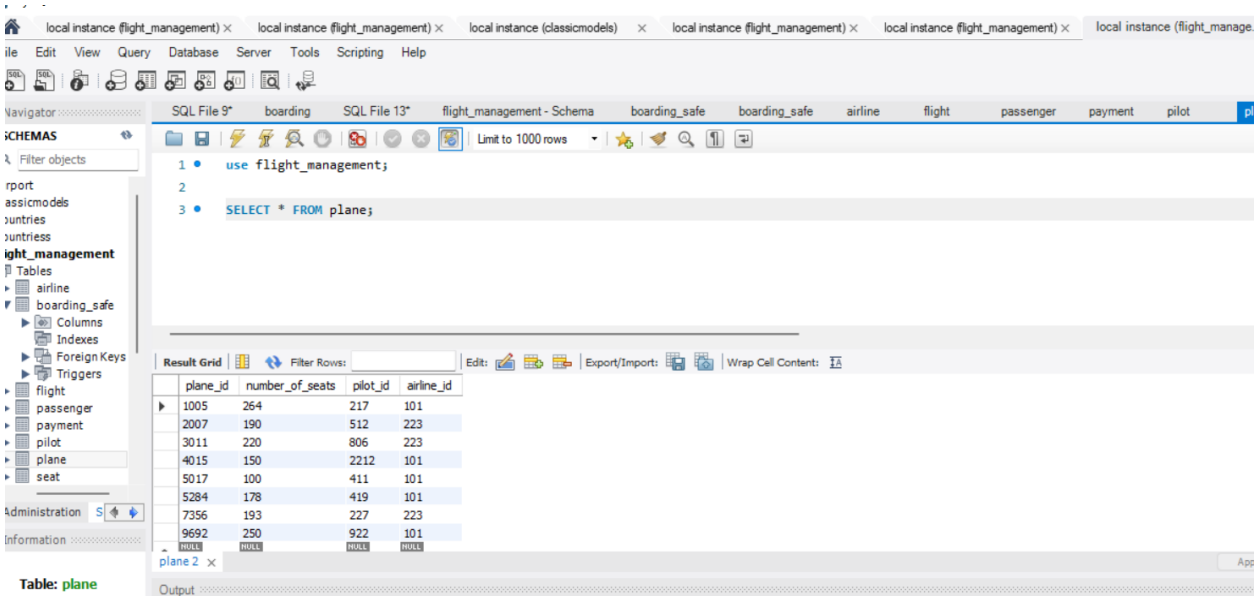
Airline table:



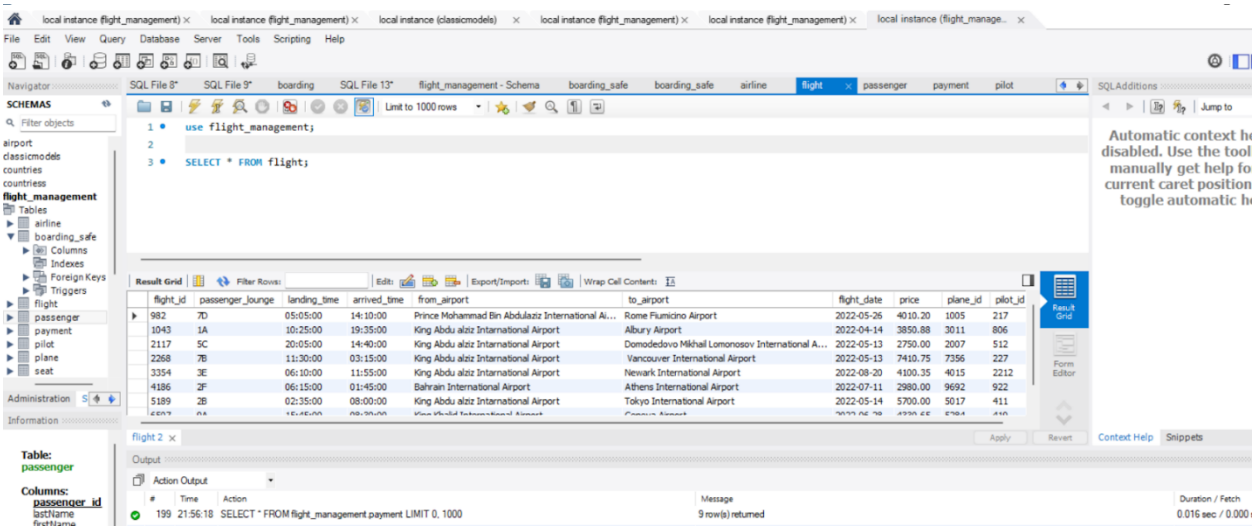
Pilot table:



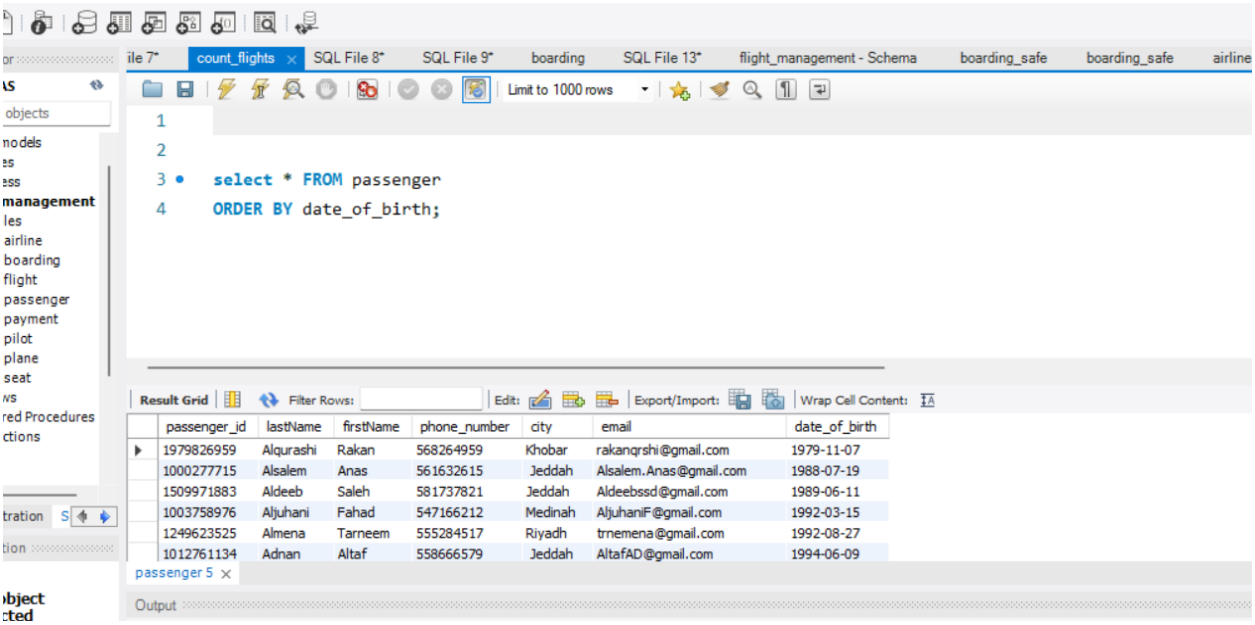
Plane table:



Flight table:

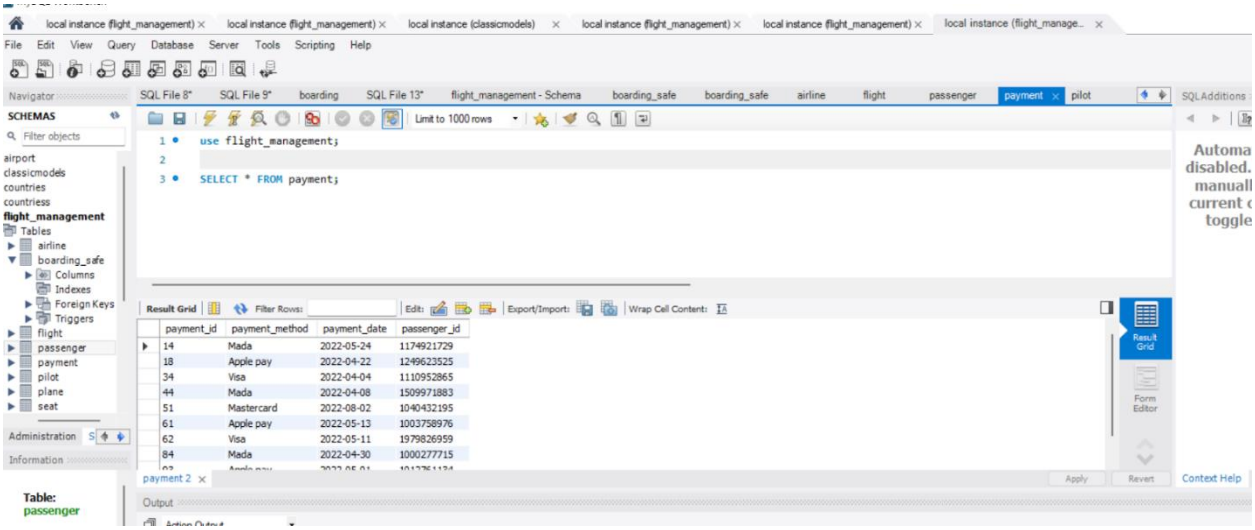


Passenger table:

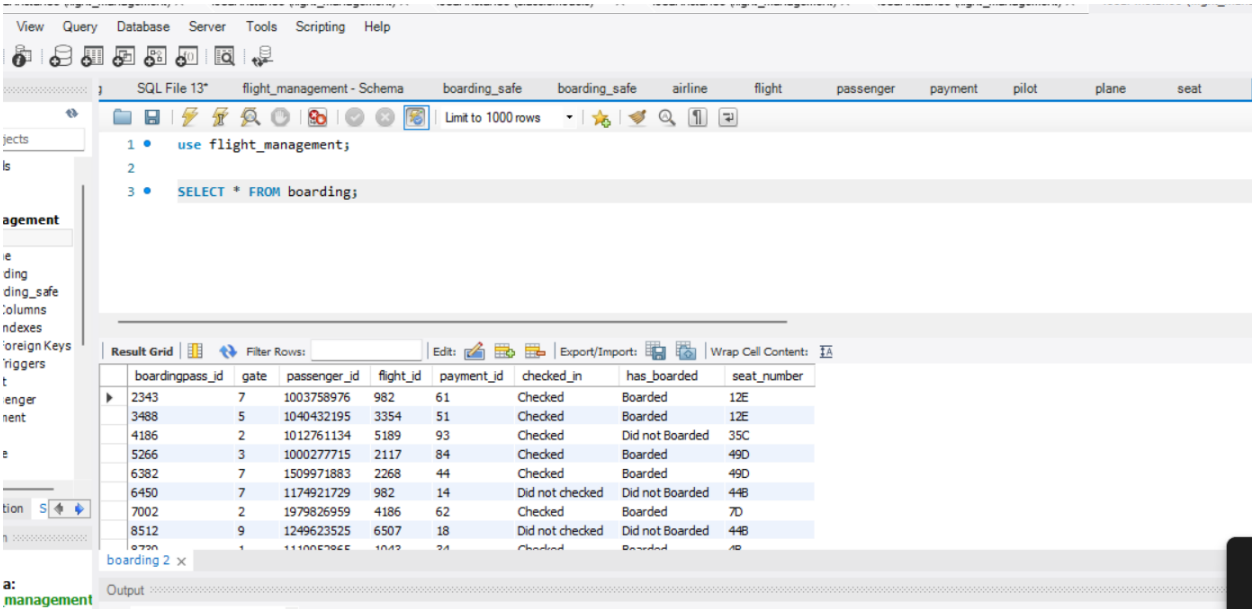


passenger_id	lastName	firstName	phone_number	city	email	date_of_birth
1979826959	Alqurashi	Rakan	568264959	Khobar	rakanqrshi@gmail.com	1979-11-07
1000277715	Alsalem	Anas	561632615	Jeddah	Alsalem.Anas@gmail.com	1988-07-19
1509971883	Aldeeb	Saleh	581737821	Jeddah	Aldeebssd@gmail.com	1989-06-11
1003758976	Aljuhani	Fahad	547166212	Medinah	AljuhaniF@gmail.com	1992-03-15
1249623525	Almena	Tarneem	555284517	Riyadh	trnemena@gmail.com	1992-08-27
1012761134	Adnan	Altaf	558666579	Jeddah	AltafAD@gmail.com	1994-06-09

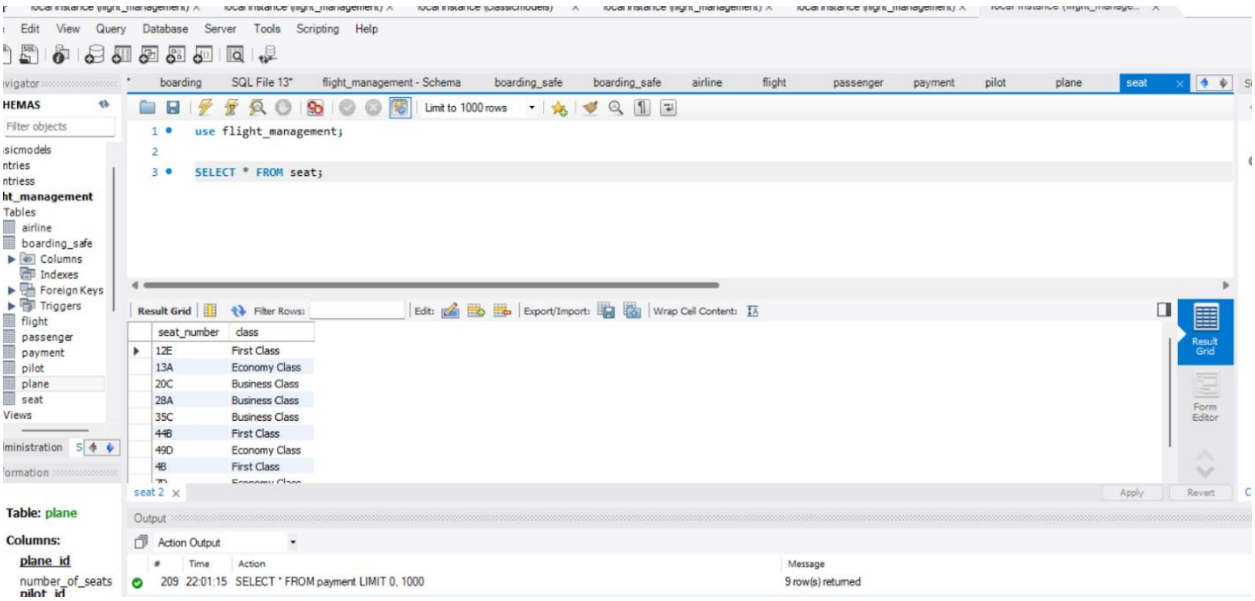
Payment table:



Boarding table:

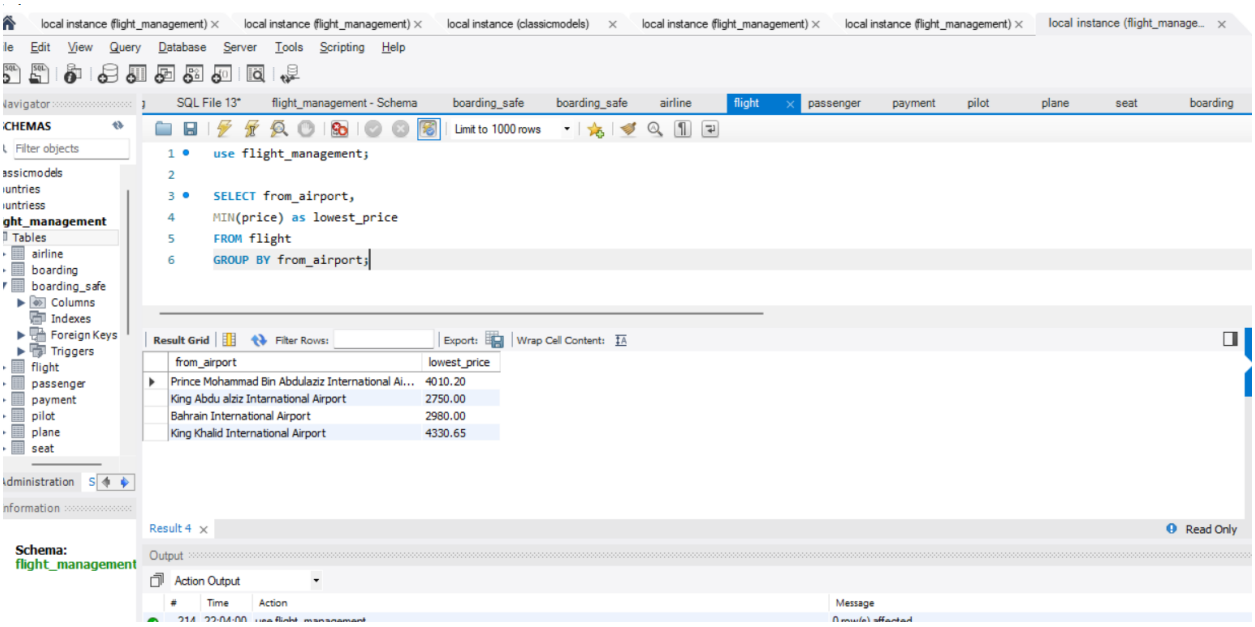


Seat table:

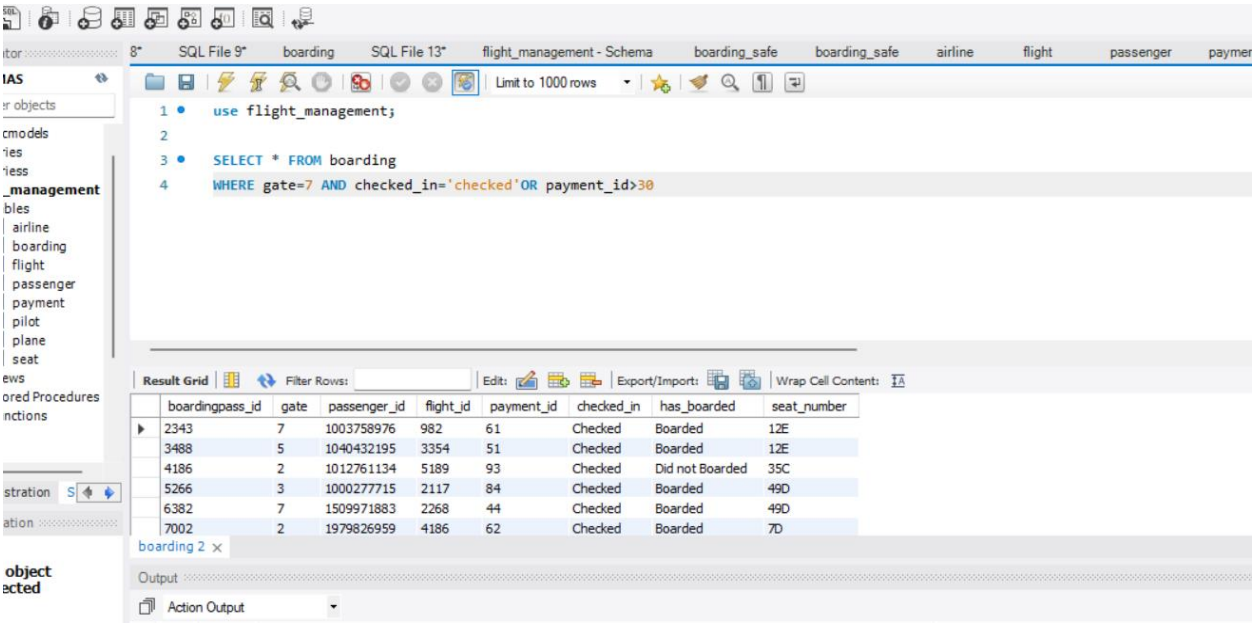


Aggregate Functions:

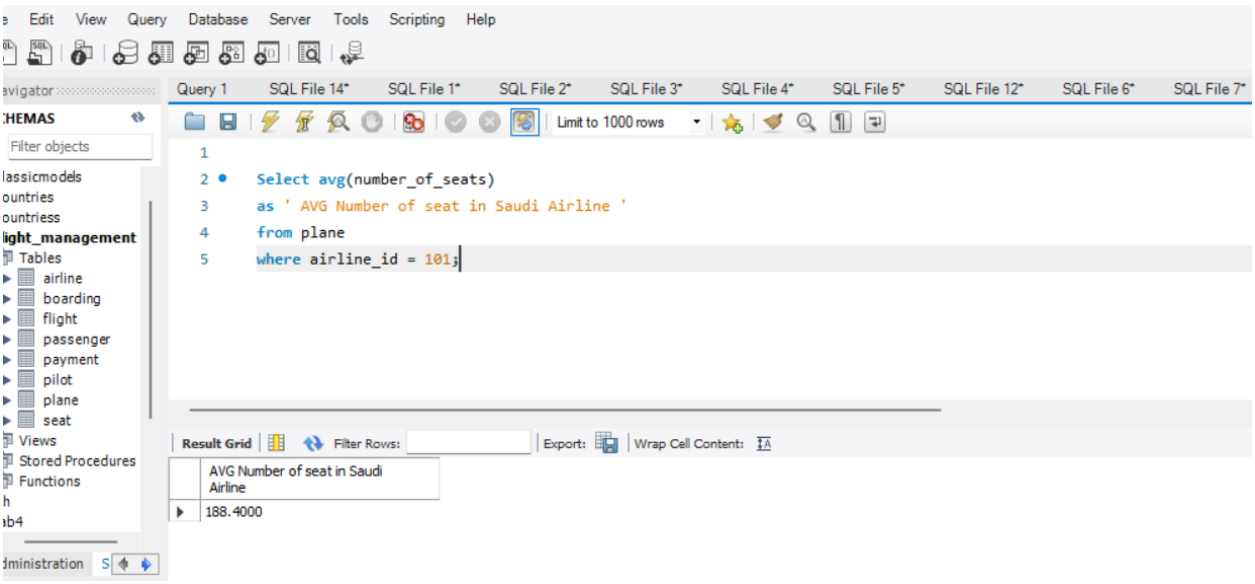
1. Retrieve the lowest price for a flight from each airport according to the starting place of the flight using MIN() .



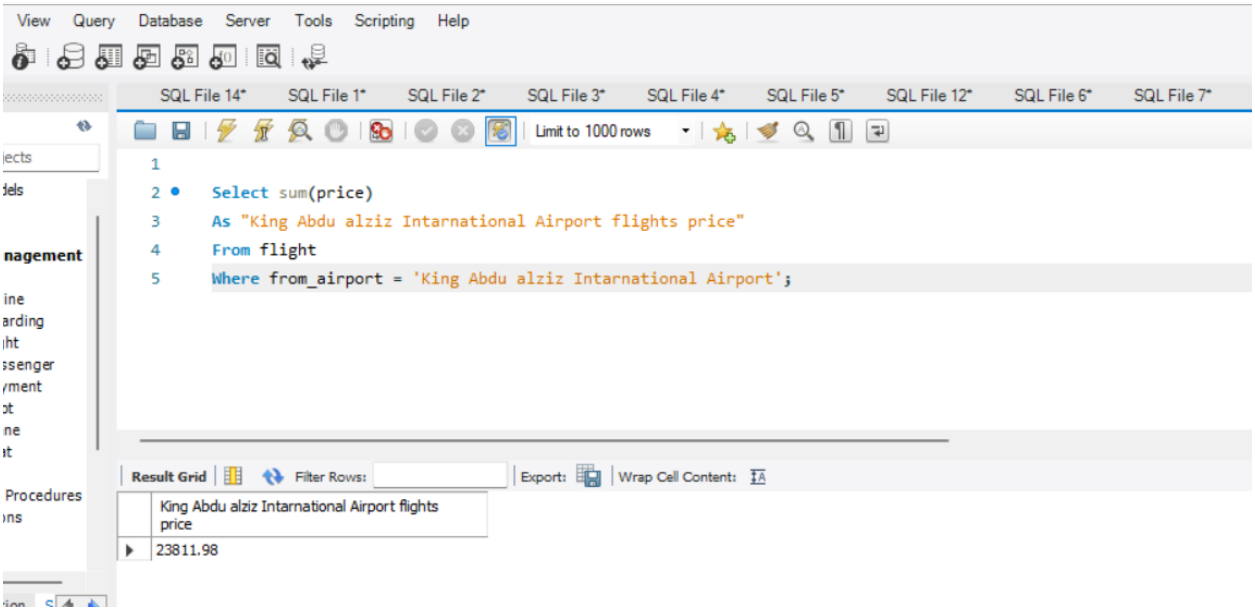
2. AND & OR



3. Retrieve "Select" the average number of seats for a specific airline using avg function.

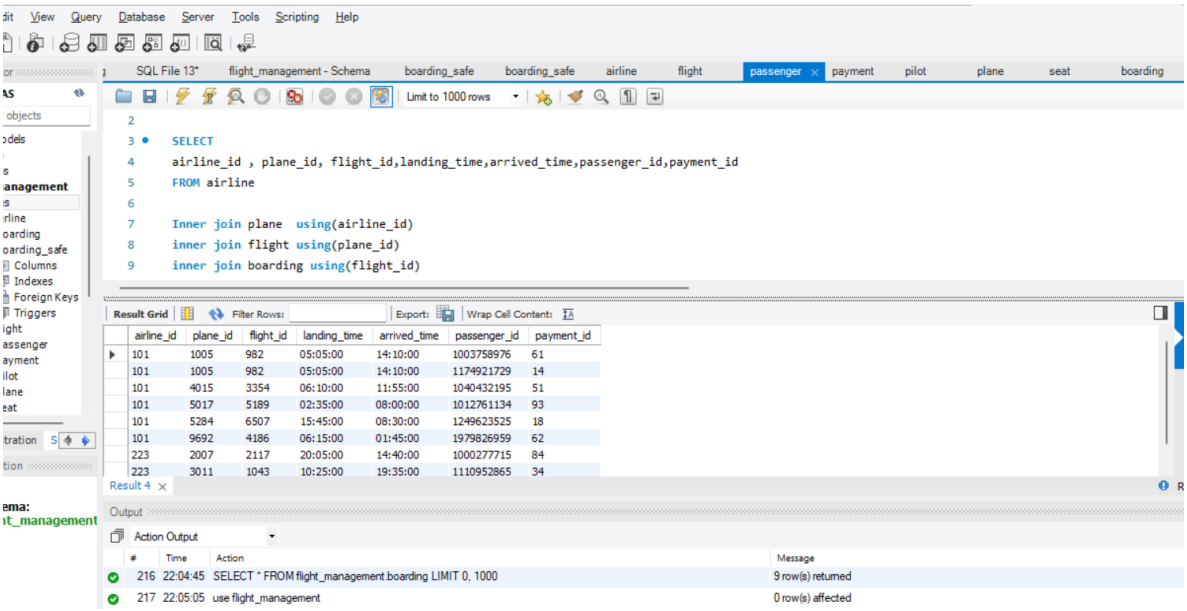


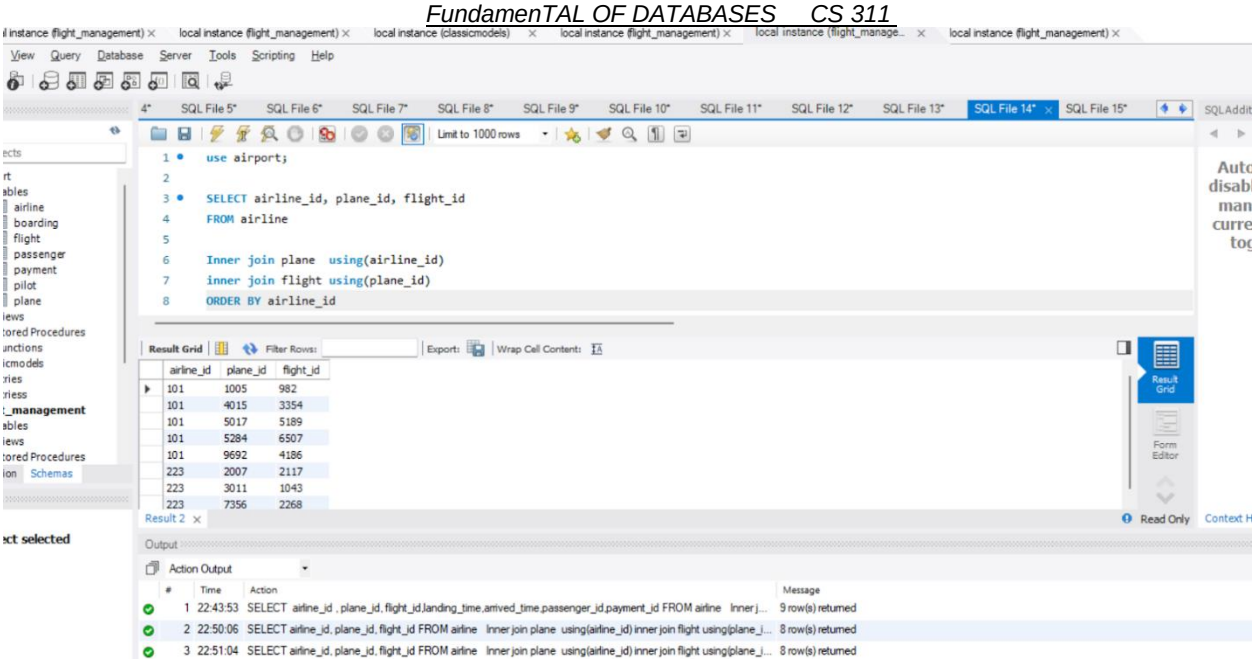
4. Retrieve "Select" the total price for flights according to the starting place of the flight using sum function.



Join:

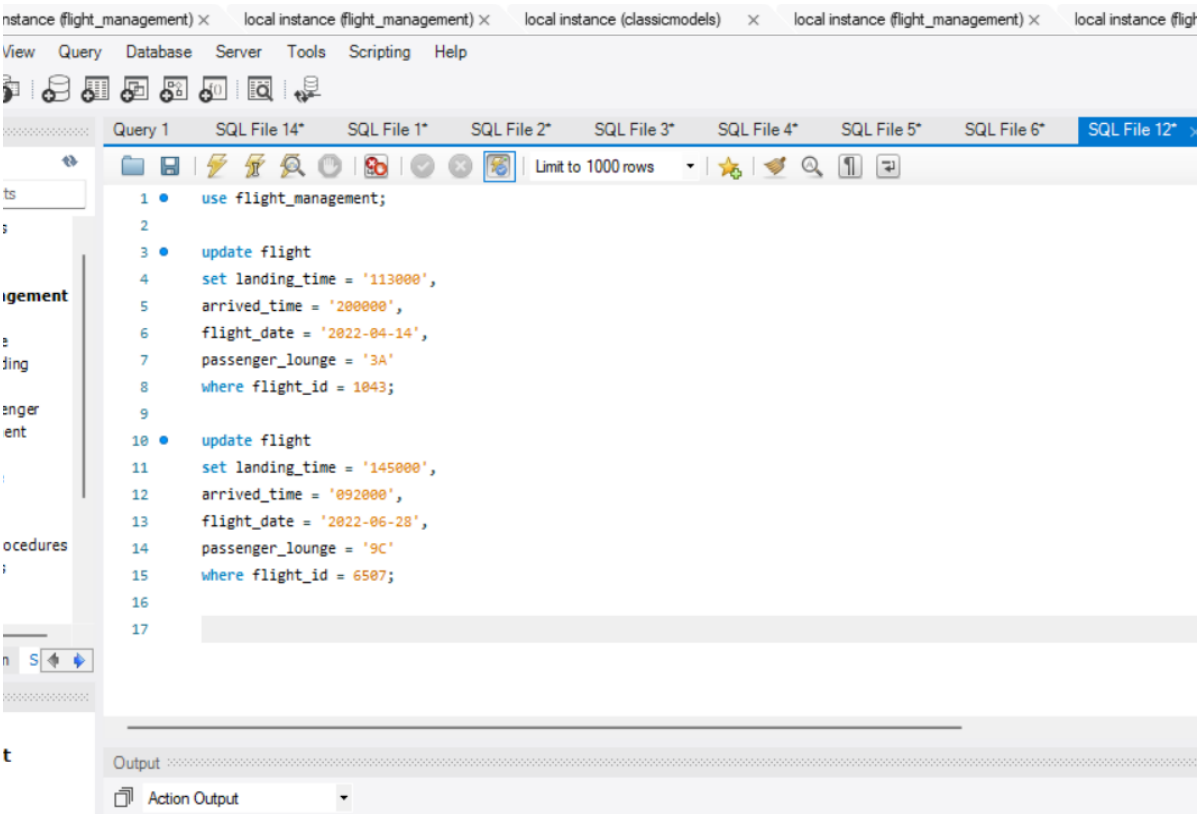
Sometimes we need to get some data from many tables which are not directly related, so we used inner join.





Trigger table:

Trigger(1):



```
13      flight_date = '2022-06-28',
14      passenger_lounge = '9C'
15      where flight_id = 6507;
16
17 •    SELECT * FROM updated_flights;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

flight_id	landing_time	arrived_time	flight_date	passenger_lounge
1043	10:25:00	19:35:00	2022-04-14	1A
6507	15:45:00	08:30:00	2022-06-28	9A

updated_flights3

Trigger(2):

SQL File 13* | flight_management - Schema | boarding_safe | boarding_safe | airline | flight

Limit to 1000 rows

```
1
2 •    SELECT * FROM boarding_safe;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

boardingpass_id	message
8739	traveled
3488	traveled
2343	traveled
5266	traveled
6382	traveled

oarding_safe1

Output