

**Project Report**

**On**

**Airline Ticket Reservation System**

(CSD 2206-5 DATABASE DESIGN AND SQL)

**Submitted to: Submitted by:**

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# INTRODUCTION

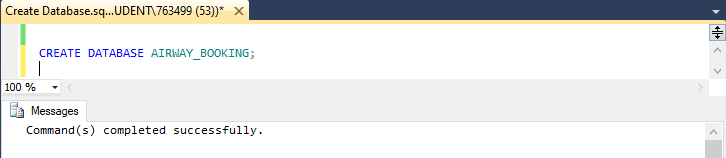
Airline Ticket Reservation System is a database project that facilitate the reservation of the online air tickets through an effective and yet simple GUI for a normal passenger intending to travel in airways. The project is basically targeted all those people who would like to travel through air. Apart from reserving tickets, through this system a passenger can compare fares ‘from’ various cities ‘to’ various cities.

# IMPLEMENTATION OF PHYSICAL MODEL

## Database Creation:

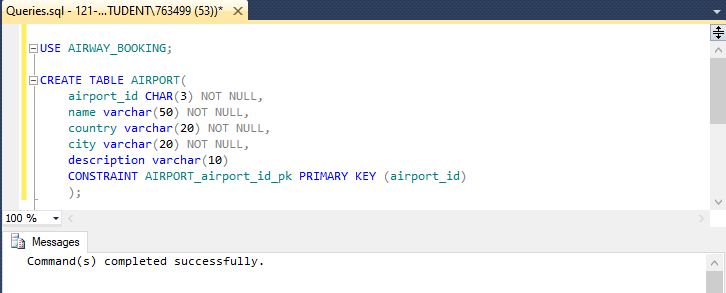
1. Create database with name AIRWAY\_BOOKING.

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| --- |
| CREATE DATABASE AIRWAY\_BOOKING; |



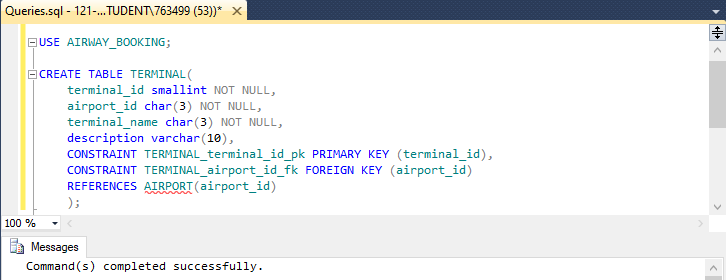
1. Create table AIRPORT.

|  |
| --- |
| USE AIRWAY\_BOOKING;  CREATE TABLE AIRPORT(  airport\_id CHAR(3) NOT NULL,  name varchar(50) NOT NULL,  country varchar(20) NOT NULL,  city varchar(20) NOT NULL,  description varchar(10)  CONSTRAINT AIRPORT\_airport\_id\_pk PRIMARY KEY (airport\_id)  ); |



1. Create table TERMINAL.

|  |
| --- |
| USE AIRWAY\_BOOKING;  CREATE TABLE TERMINAL(  terminal\_id smallint NOT NULL,  airport\_id char(3) NOT NULL,  terminal\_name char(3) NOT NULL,  description varchar(10),  CONSTRAINT TERMINAL\_terminal\_id\_pk PRIMARY KEY (terminal\_id),  CONSTRAINT TERMINAL\_airport\_id\_fk FOREIGN KEY (airport\_id)  REFERENCES AIRPORT(airport\_id)  ); |



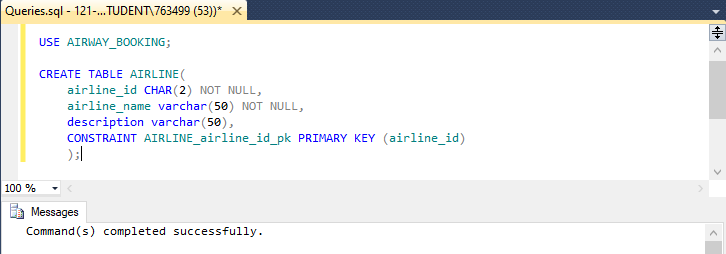
1. Create table GATE.

|  |
| --- |
| USE AIRWAY\_BOOKING;  CREATE TABLE GATE(  gate\_id smallint NOT NULL,  terminal\_id smallint NOT NULL,  gate\_name varchar(10) NOT NULL,  CONSTRAINT GATE\_gate\_id\_pk PRIMARY KEY (gate\_id),  CONSTRAINT GATE\_terminal\_id\_fk FOREIGN KEY (terminal\_id)  REFERENCES TERMINAL(terminal\_id)  ); |

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|  |

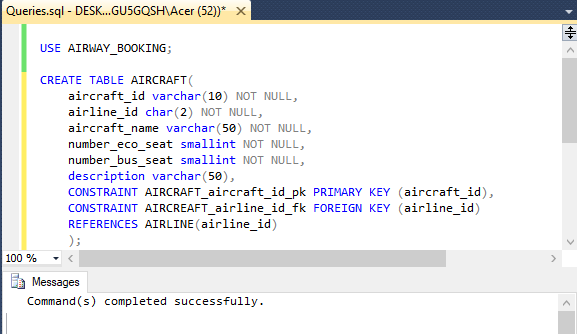
1. Create table AIRLINE.

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| --- |
| USE AIRWAY\_BOOKING;  CREATE TABLE AIRLINE(  airline\_id CHAR(2) NOT NULL,  airline\_name varchar(50) NOT NULL,  description varchar(50),  CONSTRAINT AIRLINE\_airline\_id\_pk PRIMARY KEY (airline\_id)  ); |



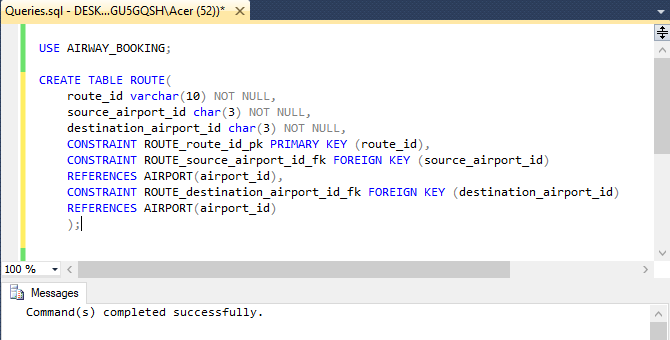
1. Create table AIRCRAFT.

|  |
| --- |
| USE AIRWAY\_BOOKING;  CREATE TABLE AIRCRAFT(  aircraft\_id varchar(10) NOT NULL,  airline\_id char(2) NOT NULL,  aircraft\_name varchar(50) NOT NULL,  number\_eco\_seat smallint NOT NULL,  number\_bus\_seat smallint NOT NULL,  description varchar(50),  CONSTRAINT AIRCRAFT\_aircraft\_id\_pk PRIMARY KEY (aircraft\_id),  CONSTRAINT AIRCREAFT\_airline\_id\_fk FOREIGN KEY (airline\_id)  REFERENCES AIRLINE(airline\_id)  ); |



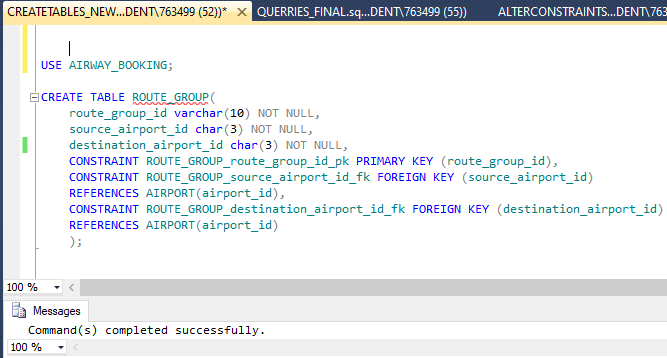
1. Create table ROUTE.

|  |
| --- |
| USE AIRWAY\_BOOKING;  CREATE TABLE ROUTE(  route\_id varchar(10) NOT NULL,  source\_airport\_id char(3) NOT NULL,  destination\_airport\_id char(3) NOT NULL,  CONSTRAINT ROUTE\_route\_id\_pk PRIMARY KEY (route\_id),  CONSTRAINT ROUTE\_source\_airport\_id\_fk FOREIGN KEY (source\_airport\_id)  REFERENCES AIRPORT(airport\_id),  CONSTRAINT ROUTE\_destination\_airport\_id\_fk FOREIGN KEY(destination\_airport\_id)  REFERENCES AIRPORT(airport\_id)  ); |



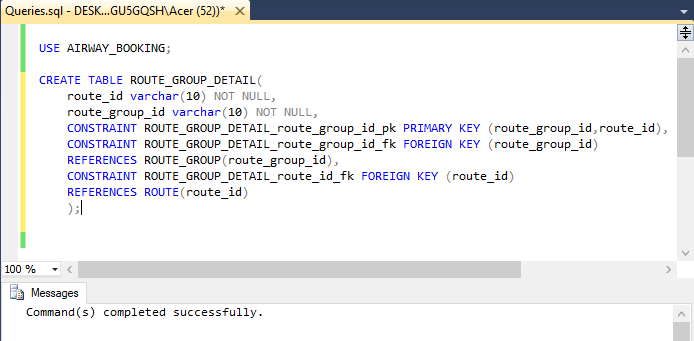
1. Create table ROUTE\_GROUP.

|  |
| --- |
| USE AIRWAY\_BOOKING;  CREATE TABLE ROUTE\_GROUP(  route\_group\_id varchar(10) NOT NULL,  source\_airport\_id char(3) NOT NULL,  destination\_airport\_id char(3) NOT NULL,  CONSTRAINT ROUTE\_GROUP\_route\_group\_id\_pk PRIMARY KEY (route\_group\_id),  CONSTRAINT ROUTE\_GROUP\_source\_airport\_id\_fk FOREIGN KEY (source\_airport\_id)  REFERENCES AIRPORT(airport\_id),  CONSTRAINT ROUTE\_GROUP\_destination\_airport\_id\_fk FOREIGN KEY (destination\_airport\_id)  REFERENCES AIRPORT(airport\_id)  ); |



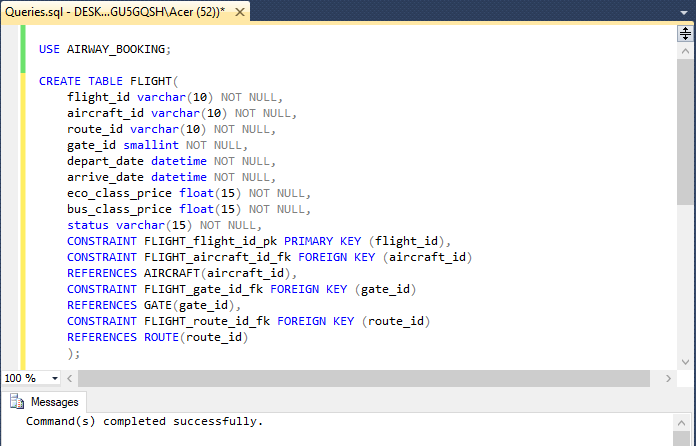
1. Create table ROUTE\_GROUP\_DETAIL.

|  |
| --- |
| USE AIRWAY\_BOOKING;  CREATE TABLE ROUTE\_GROUP\_DETAIL(  route\_id varchar(10) NOT NULL,  route\_group\_id varchar(10) NOT NULL,  CONSTRAINT ROUTE\_GROUP\_DETAIL\_route\_group\_id\_pk PRIMARY KEY (route\_group\_id,route\_id),  CONSTRAINT ROUTE\_GROUP\_DETAIL\_route\_group\_id\_fk FOREIGN KEY (route\_group\_id)  REFERENCES ROUTE\_GROUP(route\_group\_id),  CONSTRAINT ROUTE\_GROUP\_DETAIL\_route\_id\_fk FOREIGN KEY (route\_id)  REFERENCES ROUTE(route\_id)  ); |



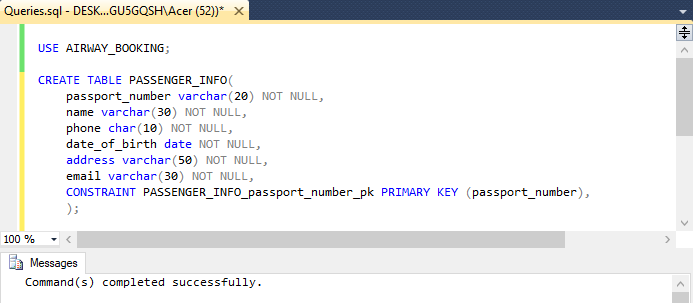
1. Create table FLIGHT.

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| --- |
| USE AIRWAY\_BOOKING;  CREATE TABLE FLIGHT(  flight\_id varchar(10) NOT NULL,  aircraft\_id varchar(10) NOT NULL,  route\_id varchar(10) NOT NULL,  gate\_id smallint NOT NULL,  depart\_date datetime NOT NULL,  arrive\_date datetime NOT NULL,  eco\_class\_price float(15) NOT NULL,  bus\_class\_price float(15) NOT NULL,  status varchar(15) NOT NULL,  CONSTRAINT FLIGHT\_flight\_id\_pk PRIMARY KEY (flight\_id),  CONSTRAINT FLIGHT\_aircraft\_id\_fk FOREIGN KEY (aircraft\_id)  REFERENCES AIRCRAFT(aircraft\_id),  CONSTRAINT FLIGHT\_gate\_id\_fk FOREIGN KEY (gate\_id)  REFERENCES GATE(gate\_id),  CONSTRAINT FLIGHT\_route\_id\_fk FOREIGN KEY (route\_id)  REFERENCES ROUTE(route\_id)  ); |



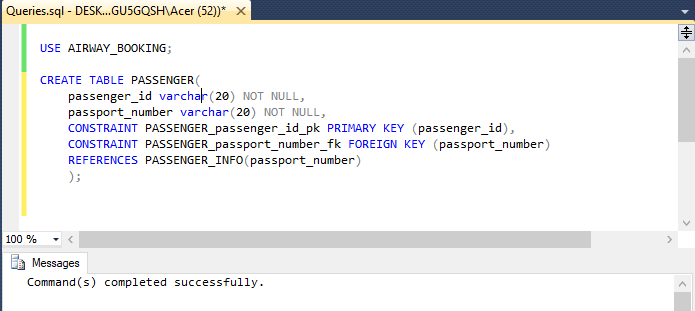
1. Create table PASSENGER\_INFO.

|  |
| --- |
| USE AIRWAY\_BOOKING;  CREATE TABLE PASSENGER\_INFO(  passport\_number varchar(20) NOT NULL,  name varchar(30) NOT NULL,  phone char(10) NOT NULL,  date\_of\_birth date NOT NULL,  address varchar(50) NOT NULL,  email varchar(30) NOT NULL,  CONSTRAINT PASSENGER\_INFO\_passport\_number\_pk PRIMARY KEY (passport\_number),  ); |



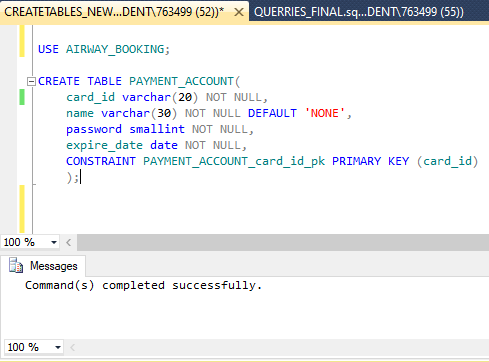
1. Create table PASSENGER.

|  |
| --- |
| USE AIRWAY\_BOOKING;  CREATE TABLE PASSENGER(  passenger\_id varchar(20) NOT NULL,  passport\_number varchar(20) NOT NULL,  CONSTRAINT PASSENGER\_passenger\_id\_pk PRIMARY KEY (passenger\_id),  CONSTRAINT PASSENGER\_passport\_number\_fk FOREIGN KEY (passport\_number)  REFERENCES PASSENGER\_INFO(passport\_number)  ); |



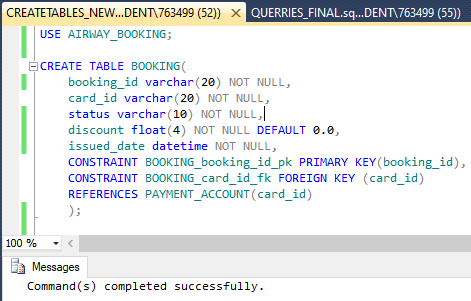
1. Create table PAYMENT\_ACCOUNT.

|  |
| --- |
| USE AIRWAY\_BOOKING;  CREATE TABLE PAYMENT\_ACCOUNT(  card\_id varchar(20) NOT NULL,  name varchar(30) NOT NULL DEFAULT 'NONE',  password smallint NOT NULL,  expire\_date date NOT NULL,  CONSTRAINT PAYMENT\_ACCOUNT\_card\_id\_pk PRIMARY KEY (card\_id)  ); |



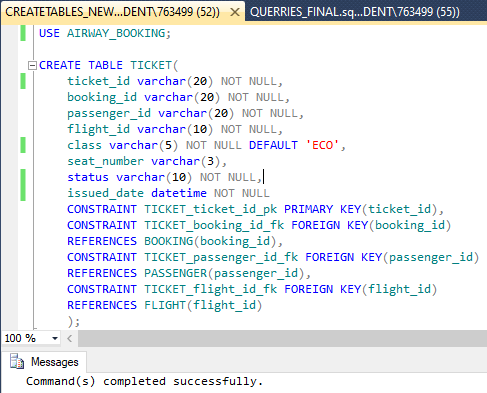
1. Create table BOOKING.

|  |
| --- |
| USE AIRWAY\_BOOKING;  CREATE TABLE BOOKING(  booking\_id varchar(20) NOT NULL,  card\_id varchar(20) NOT NULL,  status varchar(10) NOT NULL,  discount float(4) NOT NULL DEFAULT 0.0,  issued\_date datetime NOT NULL,  CONSTRAINT BOOKING\_booking\_id\_pk PRIMARY KEY(booking\_id),  CONSTRAINT BOOKING\_card\_id\_fk FOREIGN KEY (card\_id)  REFERENCES PAYMENT\_ACCOUNT(card\_id)  ); |



1. Create table TICKET.

|  |
| --- |
| USE AIRWAY\_BOOKING;  CREATE TABLE TICKET(  ticket\_id varchar(20) NOT NULL,  booking\_id varchar(20) NOT NULL,  passenger\_id varchar(20) NOT NULL,  flight\_id varchar(10) NOT NULL,  class varchar(5) NOT NULL DEFAULT 'ECO',  seat\_number varchar(3),  status varchar(10) NOT NULL,  issued\_date datetime NOT NULL  CONSTRAINT TICKET\_ticket\_id\_pk PRIMARY KEY(ticket\_id),  CONSTRAINT TICKET\_booking\_id\_fk FOREIGN KEY(booking\_id)  REFERENCES BOOKING(booking\_id),  CONSTRAINT TICKET\_passenger\_id\_fk FOREIGN KEY(passenger\_id)  REFERENCES PASSENGER(passenger\_id),  CONSTRAINT TICKET\_flight\_id\_fk FOREIGN KEY(flight\_id)  REFERENCES FLIGHT(flight\_id)  ); |



## BUSINESS RULES:

Every database is consisting of some rules and constraints to work properly and to avoid any incorrect data to get store. Business rules are a set of statements that specify what the user can or cannot do with the data inserted. Here are some constraints imposed on specific aspects of Airline Reservation System Database:

1. During payment, card expire date should be greater than current date
2. While booking a ticket, discount should not be less than 10.
3. In particular passenger information, every passenger must have unique email address.

## TOOLS USED

* SQL Server:

Every application requires a database system to store some data. SQL Server is a relational database management system (RDBMS) developed by Microsoft. It is primarily designed and developed to compete with MySQL and Oracle database. We have created our database using mysql queries.

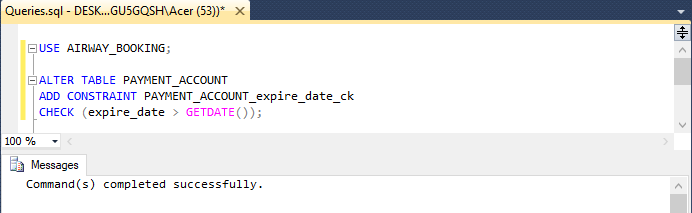
* DRAW.IO:

It is an open source, browser-based application used for drawing diagrams by user end. We have used this tool in creating ER diagram of the project.

## Applying Business Rules And Adding Constraints:

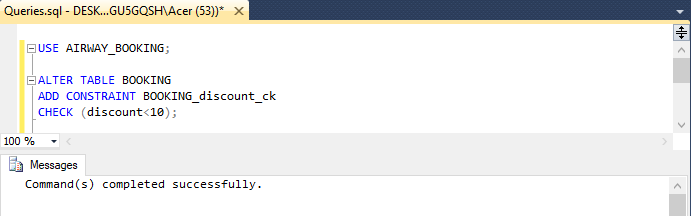
1. All the Primary and Foreign Key Constraints have been set in the Table Creation session.
2. Setting constraint on card expiry date.

|  |
| --- |
| USE AIRWAY\_BOOKING;  ALTER TABLE PAYMENT\_ACCOUNT  ADD CONSTRAINT PAYMENT\_ACCOUNT\_expire\_date\_ck  CHECK (expire\_date > GETDATE()); |



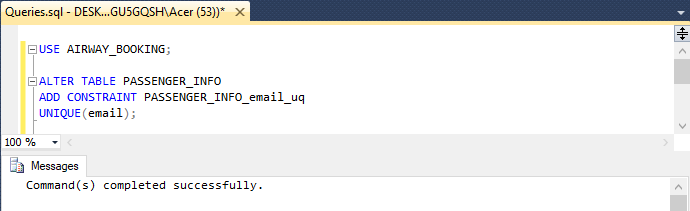
1. Setting constraint on booking discount.

|  |
| --- |
| USE AIRWAY\_BOOKING;  ALTER TABLE BOOKING  ADD CONSTRAINT BOOKING\_discount\_ck  CHECK (discount<10); |



1. Setting constraint on passenger’s email address.

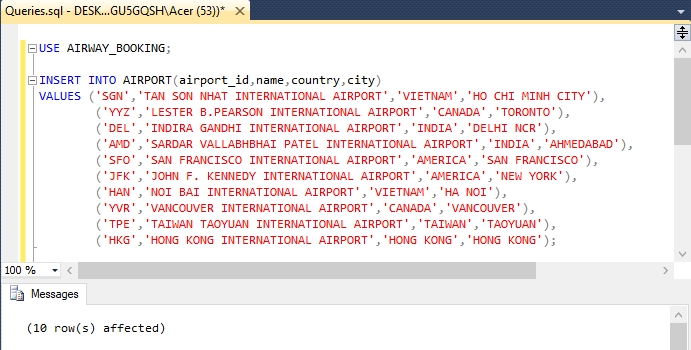
|  |
| --- |
| USE AIRWAY\_BOOKING;  ALTER TABLE PASSENGER\_INFO  ADD CONSTRAINT PASSENGER\_INFO\_email\_uq  UNIQUE(email); |



# Records insertion

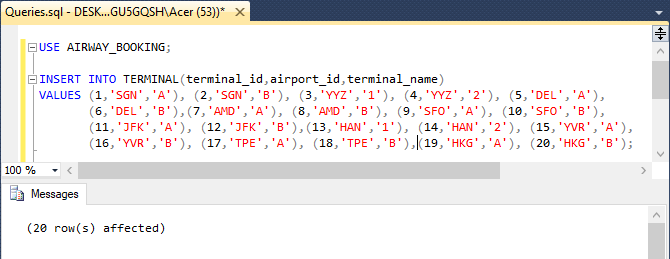
1. Insert data to AIRPORT.

|  |
| --- |
| USE AIRWAY\_BOOKING;  INSERT INTO AIRPORT(airport\_id,name,country,city)  VALUES ('SGN','TAN SON NHAT INTERNATIONAL AIRPORT','VIETNAM','HO CHI MINH CITY'),  ('YYZ','LESTER B.PEARSON INTERNATIONAL AIRPORT','CANADA','TORONTO'),  ('DEL','INDIRA GANDHI INTERNATIONAL AIRPORT','INDIA','DELHI NCR'),  ('AMD','SARDAR VALLABHBHAI PATEL INTERNATIONAL AIRPORT','INDIA','AHMEDABAD'),  ('SFO','SAN FRANCISCO INTERNATIONAL AIRPORT','AMERICA','SAN FRANCISCO'),  ('JFK','JOHN F. KENNEDY INTERNATIONAL AIRPORT','AMERICA','NEW YORK'),  ('HAN','NOI BAI INTERNATIONAL AIRPORT','VIETNAM','HA NOI'),  ('YVR','VANCOUVER INTERNATIONAL AIRPORT','CANADA','VANCOUVER'),  ('TPE','TAIWAN TAOYUAN INTERNATIONAL AIRPORT','TAIWAN','TAOYUAN'),  ('HKG','HONG KONG INTERNATIONAL AIRPORT','HONG KONG','HONG KONG'); |



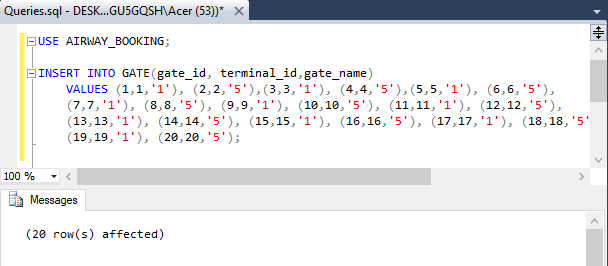
1. Insert data to TERMINAL.

|  |
| --- |
| USE AIRWAY\_BOOKING;  INSERT INTO TERMINAL(terminal\_id,airport\_id,terminal\_name)  VALUES (1,'SGN','A'), (2,'SGN','B'), (3,'YYZ','1'), (4,'YYZ','2'),(5,'DEL','A'),  (6,'DEL','B'),(7,'AMD','A'), (8,'AMD','B'), (9,'SFO','A'), (10,'SFO','B'),  (11,'JFK','A'), (12,'JFK','B'),(13,'HAN','1'), (14,'HAN','2'), (15,'YVR','A'),  (16,'YVR','B'), (17,'TPE','A'), (18,'TPE','B'),(19,'HKG','A'), (20,'HKG','B'); |



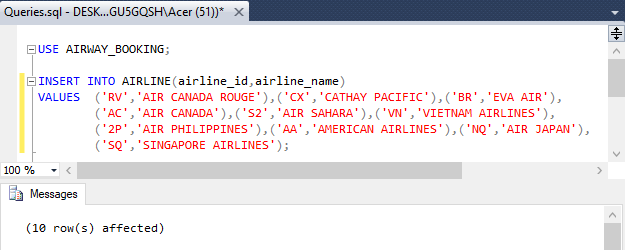
1. Insert data to GATE.

|  |
| --- |
| USE AIRWAY\_BOOKING;  INSERT INTO GATE(gate\_id, terminal\_id,gate\_name)  VALUES (1,1,'1'), (2,2,'5'),(3,3,'1'), (4,4,'5'),(5,5,'1'), (6,6,'5'),  (7,7,'1'), (8,8,'5'), (9,9,'1'), (10,10,'5'), (11,11,'1'), (12,12,'5'),  (13,13,'1'), (14,14,'5'), (15,15,'1'), (16,16,'5'), (17,17,'1'), (18,18,'5'),  (19,19,'1'), (20,20,'5'); |



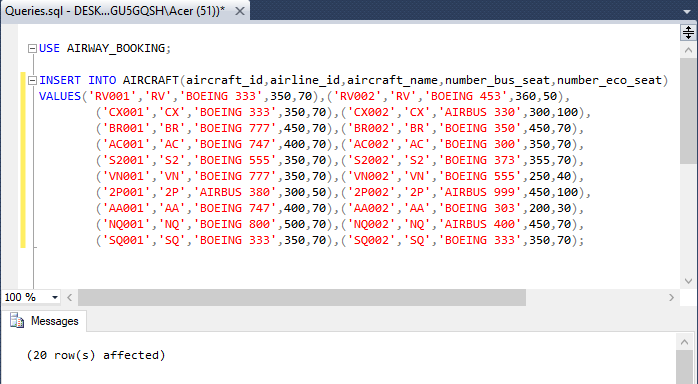
1. Insert data to AIRLINE.

|  |
| --- |
| USE AIRWAY\_BOOKING;  INSERT INTO AIRLINE(airline\_id,airline\_name)  VALUES('RV','AIR CANADA ROUGE'),('CX','CATHAY PACIFIC'),('BR','EVA AIR'),  ('AC','AIR CANADA'),('S2','AIR SAHARA'),('VN','VIETNAM AIRLINES'),  ('2P','AIR PHILIPPINES'),('AA','AMERICAN AIRLINES'),('NQ','AIR JAPAN'),  ('SQ','SINGAPORE AIRLINES'); |



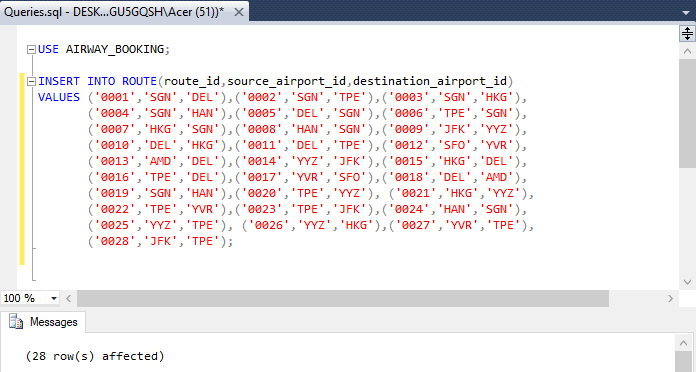
1. Insert data to AIRCRAFT.

|  |
| --- |
| USE AIRWAY\_BOOKING;  INSERT INTO AIRCRAFT(aircraft\_id,airline\_id,aircraft\_name,number\_bus\_seat,number\_eco\_seat)  VALUES('RV001','RV','BOEING 333',350,70),('RV002','RV','BOEING 453',360,50),  ('CX001','CX','BOEING 333',350,70),('CX002','CX','AIRBUS 330',300,100),  ('BR001','BR','BOEING 777',450,70),('BR002','BR','BOEING 350',450,70),  ('AC001','AC','BOEING 747',400,70),('AC002','AC','BOEING 300',350,70),  ('S2001','S2','BOEING 555',350,70),('S2002','S2','BOEING 373',355,70),  ('VN001','VN','BOEING 777',350,70),('VN002','VN','BOEING 555',250,40),  ('2P001','2P','AIRBUS 380',300,50),('2P002','2P','AIRBUS 999',450,100),  ('AA001','AA','BOEING 747',400,70),('AA002','AA','BOEING 303',200,30),  ('NQ001','NQ','BOEING 800',500,70),('NQ002','NQ','AIRBUS 400',450,70),  ('SQ001','SQ','BOEING 333',350,70),('SQ002','SQ','BOEING 333',350,70); |



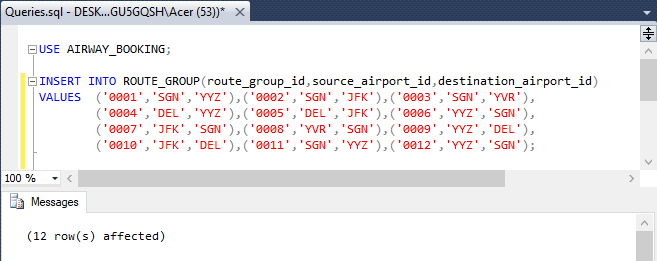
1. Insert data to ROUTE.

|  |
| --- |
| USE AIRWAY\_BOOKING;  INSERT INTO ROUTE(route\_id,source\_airport\_id,destination\_airport\_id)  VALUES ('0001','SGN','DEL'),('0002','SGN','TPE'),('0003','SGN','HKG'),  ('0004','SGN','HAN'),('0005','DEL','SGN'),('0006','TPE','SGN'),  ('0007','HKG','SGN'),('0008','HAN','SGN'),('0009','JFK','YYZ'),  ('0010','DEL','HKG'),('0011','DEL','TPE'),('0012','SFO','YVR'),  ('0013','AMD','DEL'),('0014','YYZ','JFK'),('0015','HKG','DEL'),  ('0016','TPE','DEL'),('0017','YVR','SFO'),('0018','DEL','AMD'),  ('0019','SGN','HAN'),('0020','TPE','YYZ'), ('0021','HKG','YYZ'),  ('0022','TPE','YVR'),('0023','TPE','JFK'),('0024','HAN','SGN'),  ('0025','YYZ','TPE'), ('0026','YYZ','HKG'),('0027','YVR','TPE'),  ('0028','JFK','TPE'); |



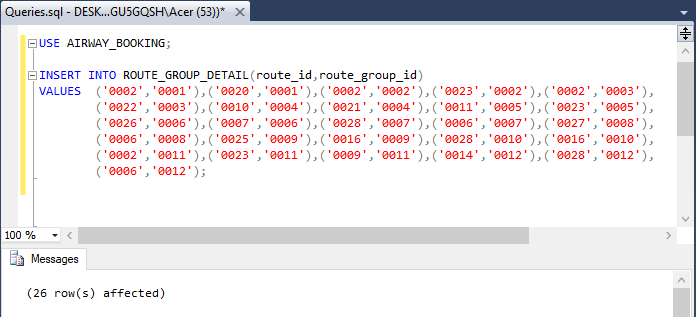
1. Insert data to ROUTE\_GROUP.

|  |
| --- |
| USE AIRWAY\_BOOKING;  INSERT INTO ROUTE\_GROUP(route\_group\_id,source\_airport\_id,destination\_airport\_id)  VALUES ('0001','SGN','YYZ'),('0002','SGN','JFK'),('0003','SGN','YVR'),  ('0004','DEL','YYZ'),('0005','DEL','JFK'),('0006','YYZ','SGN'),  ('0007','JFK','SGN'),('0008','YVR','SGN'),('0009','YYZ','DEL'),  ('0010','JFK','DEL'),('0011','SGN','YYZ'),('0012','YYZ','SGN'); |



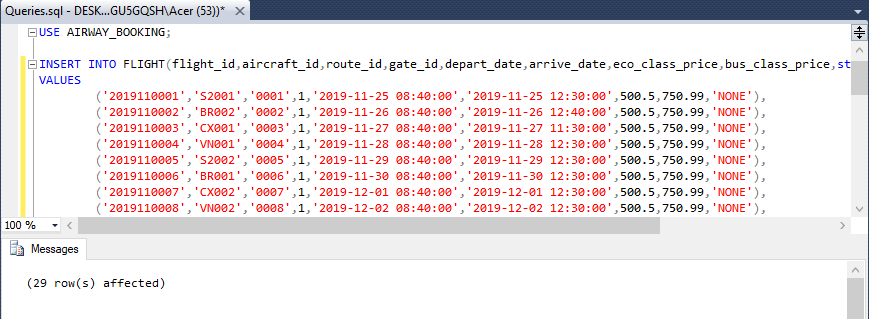
1. Insert data to ROUTE\_GROUP\_DETAIL.

|  |
| --- |
| USE AIRWAY\_BOOKING;  INSERT INTO ROUTE\_GROUP\_DETAIL(route\_id,route\_group\_id)  VALUES ('0002','0001'),('0020','0001'),('0002','0002'),('0023','0002'), ('0002','0003'),('0022','0003'),('0010','0004'),('0021','0004'),  ('0011','0005'),('0023','0005'),('0026','0006'),('0007','0006'),  ('0028','0007'),('0006','0007'),('0027','0008'),('0006','0008'),  ('0025','0009'),('0016','0009'),('0028','0010'),('0016','0010'),  ('0002','0011'),('0023','0011'),('0009','0011'),('0014','0012'),  ('0028','0012'),('0006','0012'); |



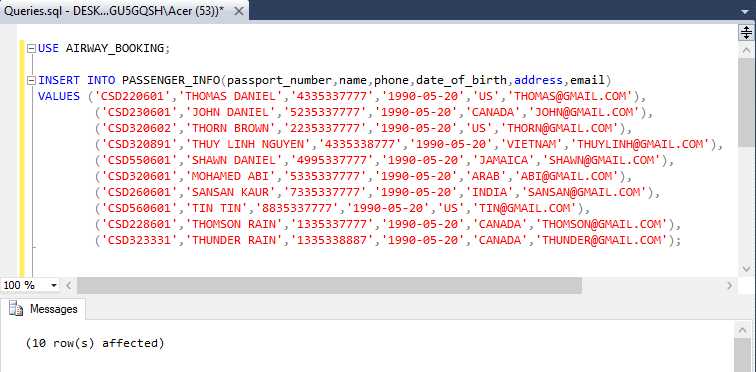
1. Insert data to FLIGHT.

|  |
| --- |
| USE AIRWAY\_BOOKING;  INSERT INTO FLIGHT(flight\_id,aircraft\_id,route\_id,gate\_id,depart\_date,arrive\_date,eco\_class\_price,bus\_class\_price,status)  VALUES  ('2019110001','S2001','0001',1,'2019-11-25 08:40:00','2019-11-25 12:30:00', 500.5,750.99,'NONE'),  ('2019110002','BR002','0002',1,'2019-11-26 08:40:00','2019-11-26 12:40:00', 500.5,750.99,'NONE'),  ('2019110003','CX001','0003',1,'2019-11-27 08:40:00','2019-11-27 11:30:00', 500.5,750.99,'NONE'),  ('2019110004','VN001','0004',1,'2019-11-28 08:40:00','2019-11-28 12:30:00', 500.5,750.99,'NONE'),  ('2019110005','S2002','0005',1,'2019-11-29 08:40:00','2019-11-29 12:30:00', 500.5,750.99,'NONE'),  ('2019110006','BR001','0006',1,'2019-11-30 08:40:00','2019-11-30 12:30:00', 500.5,750.99,'NONE'),  ('2019110007','CX002','0007',1,'2019-12-01 08:40:00','2019-12-01 12:30:00', 500.5,750.99,'NONE'),  ('2019110008','VN002','0008',1,'2019-12-02 08:40:00','2019-12-02 12:30:00', 500.5,750.99,'NONE'),  ('2019110009','AA001','0009',1,'2019-12-03 08:40:00','2019-12-03 12:30:00', 500.5,750.99,'NONE'),  ('2019110010','CX001','0010',1,'2019-12-04 08:40:00','2019-12-04 12:30:00', 500.5,750.99,'NONE'),  ('2019110011','BR001','0011',1,'2019-12-05 08:40:00','2019-12-05 12:30:00', 500.5,750.99,'NONE'),  ('2019110012','AC001','0012',1,'2019-12-06 08:40:00','2019-12-06 12:30:00', 500.5,750.99,'NONE'),  ('2019110013','S2001','0013',1,'2019-12-07 08:40:00','2019-12-07 12:30:00', 500.5,750.99,'NONE'),  ('2019110014','AC002','0014',1,'2019-12-08 08:40:00','2019-12-08 12:30:00', 500.5,750.99,'NONE'),  ('2019110015','CX002','0015',1,'2019-12-09 08:40:00','2019-12-09 12:30:00', 500.5,750.99,'NONE'),  ('2019110016','BR002','0016',1,'2019-12-10 08:40:00','2019-12-10 12:30:00', 500.5,750.99,'NONE'),  ('2019110017','RV001','0017',1,'2019-12-11 08:40:00','2019-12-11 12:30:00', 500.5,750.99,'NONE'),  ('2019110018','S2002','0018',1,'2019-12-12 08:40:00','2019-12-12 12:30:00', 500.5,750.99,'NONE'),  ('2019110019','VN002','0019',1,'2019-12-13 08:40:00','2019-12-13 12:30:00', 500.5,750.99,'NONE'),  ('2019110020','BR001','0020',1,'2019-12-14 08:40:00','2019-12-14 12:30:00', 500.5,750.99,'NONE'),  ('2019110021','CX001','0021',1,'2019-12-15 08:40:00','2019-12-15 12:30:00', 500.5,750.99,'NONE'),  ('2019110022','NQ001','0022',1,'2019-12-16 08:40:00','2019-12-16 12:30:00', 500.5,750.99,'NONE'),  ('2019110023','NQ002','0023',1,'2019-12-01 08:40:00','2019-12-01 12:30:00', 500.5,750.99,'NONE'),  ('2019110024','VN001','0024',1,'2019-12-18 08:40:00','2019-12-18 12:30:00', 500.5,750.99,'NONE'),  ('2019110025','RV002','0025',1,'2019-12-19 08:40:00','2019-12-19 12:30:00', 500.5,750.99,'NONE'),  ('2019110026','2P001','0026',1,'2019-12-20 08:40:00','2019-12-20 12:30:00', 500.5,750.99,'NONE'),  ('2019110027','2P002','0027',1,'2019-12-21 08:40:00','2019-12-21 12:30:00', 500.5,750.99,'NONE'),  ('2019110028','BR001','0028',1,'2019-12-22 08:40:00','2019-12-22 12:30:00', 500.5,750.99,'NONE'),  ('2019110029','2P001','0011',1,'2019-12-23 08:40:00','2019-12-23 12:30:00', 500.5,750.99,'NONE'); |



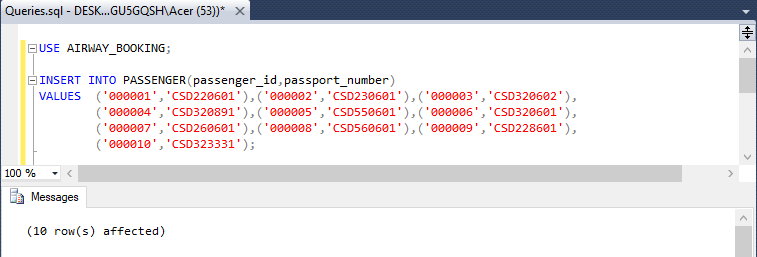
1. Insert data to PASSENGER\_INFO.

|  |
| --- |
| USE AIRWAY\_BOOKING;  INSERT INTO PASSENGER\_INFO(passport\_number,name,phone,date\_of\_birth,address,email)  VALUES ('CSD220601','THOMAS DANIEL','4335337777','1990-05-20', 'US', 'THOMAS@GMAIL.COM'),  ('CSD230601','JOHN DANIEL','5235337777','1990-05-20','CANADA','JOHN@GMAIL.COM'),  ('CSD320602','THORN BROWN','2235337777','1990-05-20','US','THORN@GMAIL.COM'),  ('CSD320891','THUY LINH NGUYEN','4335338777','1990-05-20','VIETNAM','THUYLINH@GMAIL.COM'),  ('CSD550601','SHAWN DANIEL','4995337777','1990-05-20','JAMAICA','SHAWN@GMAIL.COM'),  ('CSD320601','MOHAMED ABI','5335337777','1990-05-20','ARAB','ABI@GMAIL.COM'),  ('CSD260601','SANSAN KAUR','7335337777','1990-05-20','INDIA','SANSAN@GMAIL.COM'),  ('CSD560601','TIN TIN','8835337777','1990-05-20','US','TIN@GMAIL.COM'),  ('CSD228601','THOMSON RAIN','1335337777','1990-05-20','CANADA','THOMSON@GMAIL.COM'),  ('CSD323331','THUNDER RAIN','1335338887','1990-05-20','CANADA','THUNDER@GMAIL.COM'); |



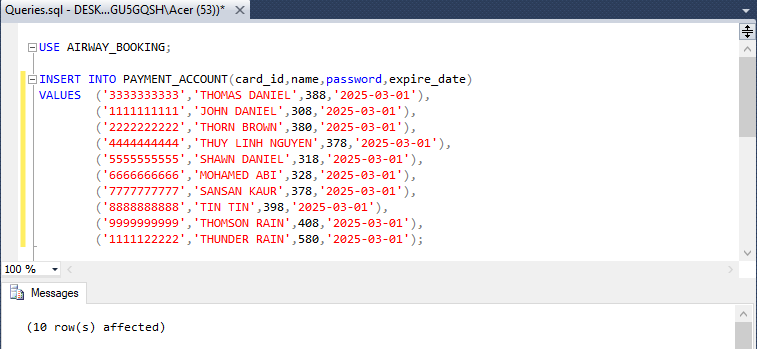
1. Insert data to PASSENGER.

|  |
| --- |
| USE AIRWAY\_BOOKING;  INSERT INTO PASSENGER(passenger\_id,passport\_number)  VALUES ('000001','CSD220601'),('000002','CSD230601'),('000003','CSD320602'),  ('000004','CSD320891'),('000005','CSD550601'), ('000006','CSD320601'),  ('000007','CSD260601'),('000008','CSD560601'),('000009','CSD228601'),  ('000010','CSD323331'); |



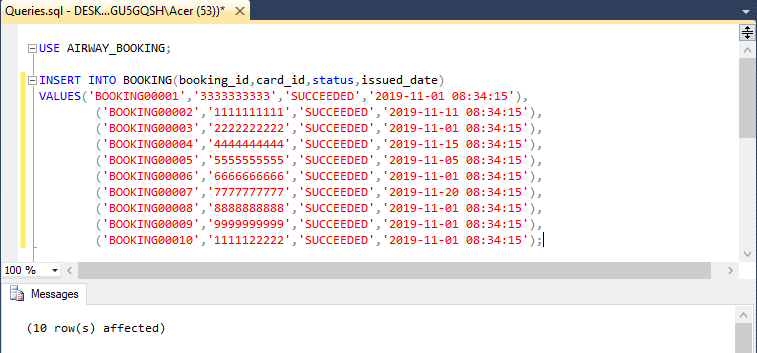
1. Insert to data to PAYMENT\_ACCOUNT.

|  |
| --- |
| USE AIRWAY\_BOOKING;  INSERT INTO PAYMENT\_ACCOUNT(card\_id,name,password,expire\_date)  VALUES ('3333333333','THOMAS DANIEL',388,'2025-03-01'),  ('1111111111','JOHN DANIEL',308,'2025-03-01'),  ('2222222222','THORN BROWN',380,'2025-03-01'),  ('4444444444','THUY LINH NGUYEN',378,'2025-03-01'),  ('5555555555','SHAWN DANIEL',318,'2025-03-01'),  ('6666666666','MOHAMED ABI',328,'2025-03-01'),  ('7777777777','SANSAN KAUR',378,'2025-03-01'),  ('8888888888','TIN TIN',398,'2025-03-01'),  ('9999999999','THOMSON RAIN',408,'2025-03-01'),  ('1111122222','THUNDER RAIN',580,'2025-03-01'); |



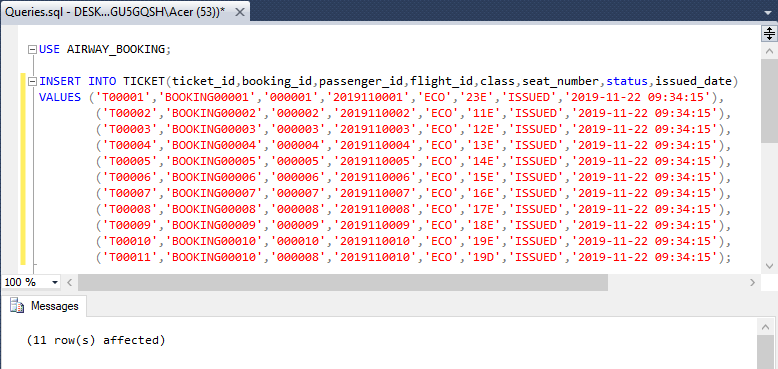
1. Insert data to BOOKING.

|  |
| --- |
| USE AIRWAY\_BOOKING;  INSERT INTO BOOKING(booking\_id,card\_id,status,issued\_date)  VALUES('BOOKING00001','3333333333','SUCCEEDED','2019-11-01 08:34:15'),  ('BOOKING00002','1111111111','SUCCEEDED','2019-11-11 08:34:15'),  ('BOOKING00003','2222222222','SUCCEEDED','2019-11-01 08:34:15'),  ('BOOKING00004','4444444444','SUCCEEDED','2019-11-15 08:34:15'),  ('BOOKING00005','5555555555','SUCCEEDED','2019-11-05 08:34:15'),  ('BOOKING00006','6666666666','SUCCEEDED','2019-11-01 08:34:15'),  ('BOOKING00007','7777777777','SUCCEEDED','2019-11-20 08:34:15'),  ('BOOKING00008','8888888888','SUCCEEDED','2019-11-01 08:34:15'),  ('BOOKING00009','9999999999','SUCCEEDED','2019-11-01 08:34:15'),  ('BOOKING00010','1111122222','SUCCEEDED','2019-11-01 08:34:15'); |



1. Insert data to TICKET.

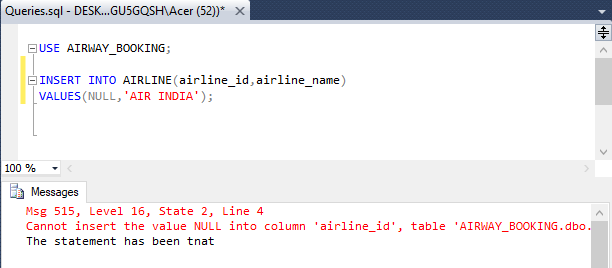
|  |
| --- |
| INSERT INTO TICKET(ticket\_id,booking\_id,passenger\_id,flight\_id,class,seat\_number,status,issued\_date)  VALUES ('T00001','BOOKING00001','000001','2019110001','ECO','23E','ISSUED','2019-11-22 09:34:15'),  ('T00002','BOOKING00002','000002','2019110002','ECO','11E','ISSUED','2019-11-22 09:34:15'),  ('T00003','BOOKING00003','000003','2019110003','ECO','12E','ISSUED','2019-11-22 09:34:15'),  ('T00004','BOOKING00004','000004','2019110004','ECO','13E','ISSUED','2019-11-22 09:34:15'),  ('T00005','BOOKING00005','000005','2019110005','ECO','14E','ISSUED','2019-11-22 09:34:15'),  ('T00006','BOOKING00006','000006','2019110006','ECO','15E','ISSUED','2019-11-22 09:34:15'),  ('T00007','BOOKING00007','000007','2019110007','ECO','16E','ISSUED','2019-11-22 09:34:15'),  ('T00008','BOOKING00008','000008','2019110008','ECO','17E','ISSUED','2019-11-22 09:34:15'),  ('T00009','BOOKING00009','000009','2019110009','ECO','18E','ISSUED','2019-11-22 09:34:15'),  ('T00010','BOOKING00010','000010','2019110010','ECO','19E','ISSUED','2019-11-22 09:34:15'),  ('T00011','BOOKING00010','000008','2019110010','ECO','19D','ISSUED','2019-11-22 09:34:15'); |



# Constraints Testing

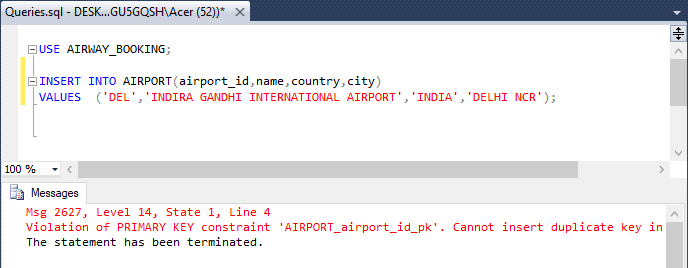
1. Testing of NULL constraint.

|  |
| --- |
| USE AIRWAY\_BOOKING;  INSERT INTO AIRLINE(airline\_id,airline\_name) VALUES(NULL,'AIR INDIA'); |



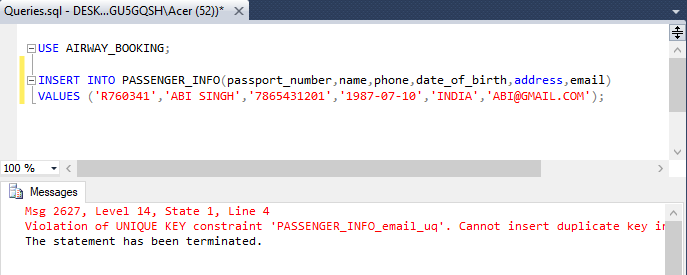
1. Testing of PRIMARY KEY constraint.

|  |
| --- |
| USE AIRWAY\_BOOKING;  INSERT INTO AIRPORT(airport\_id,name,country,city)  VALUES ('DEL','INDIRA GANDHI INTERNATIONAL AIRPORT','INDIA','DELHI NCR'); |



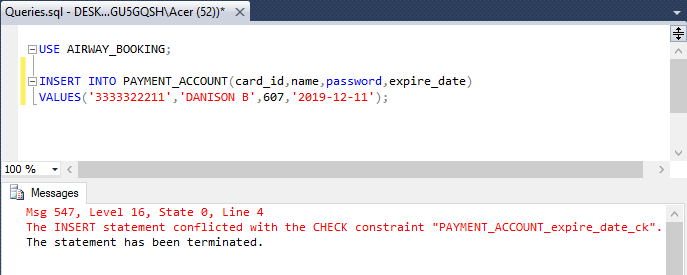
1. Testing of UNIQUE constraint.

|  |
| --- |
| USE AIRWAY\_BOOKING;  INSERT INTO PASSENGER\_INFO(passport\_number,name,phone,date\_of\_birth,address,email)  VALUES ('R760341','ABI SINGH','7865431201','1987-07-10','INDIA','ABI@GMAIL.COM'); |



1. Testing of CHECK constraint.

|  |
| --- |
| USE AIRWAY\_BOOKING;  INSERT INTO PAYMENT\_ACCOUNT(card\_id,name,password,expire\_date)  VALUES('3333322211','DANISON B',607,'2019-12-11'); |



1. Testing of FOREIGN KEY.

|  |
| --- |
| USE AIRWAY\_BOOKING;  INSERT INTO TERMINAL(terminal\_id,airport\_id,terminal\_name) VALUES (21,'HBP','T'); |

