**IST 659 Lab Assignment 5**

**SQL Statements:**

/\*Creating States table\*/

CREATE TABLE STATES\_table

(

stateAbbr VARCHAR(2) PRIMARY KEY ,

stateName VARCHAR(20) NOT NULL ,a

);

/\*Creating CITY table\*/

CREATE TABLE CITY\_table

(

cityID CHAR(8) PRIMARY KEY ,

cityName VARCHAR(25) NOT NULL ,

stateAbbr VARCHAR(2) FOREIGN KEY(stateAbbr) REFERENCES STATES\_table(stateAbbr) NOT NULL,

);

/\*Creating AIRPORT table\*/

CREATE TABLE AIRPORT\_table

(

airportID CHAR(3) PRIMARY KEY ,

airportName VARCHAR(45) UNIQUE NOT NULL ,

cityID CHAR(8) FOREIGN KEY(cityID) REFERENCES CITY\_table(cityID) NOT NULL,

);

SELECT \* FROM AIRPORT\_table

/\*Creating FLIGHTROUTE table\*/

CREATE TABLE FLIGHTROUTE\_table

(

flightNumber VARCHAR(6) PRIMARY KEY ,

departAirport CHAR(3) FOREIGN KEY(departAirport)REFERENCES AIRPORT\_table(airportID),

arriveAirport CHAR(3) FOREIGN KEY(arriveAirport)REFERENCES AIRPORT\_table(airportID),

scheduledDepartTime TIME NOT NULL,

scheduledArrivalTime TIME NOT NULL,

);

/\*Creating FLIGHTSTATUS table\*/

CREATE TABLE FLIGHTSTATUS\_table

(

statusID CHAR(1) PRIMARY KEY NOT NULL,

CONSTRAINT chk3\_statusID CHECK (statusID='O'OR statusID='C' OR statusID='D'),

description VARCHAR(20) NOT NULL,

);

/\*Creating AIRCRAFTSPECS table\*/

CREATE TABLE AIRCRAFTSPECS\_table

(

aircraftTypeID CHAR(8) PRIMARY KEY NOT NULL,

aircraftVersion VARCHAR(10) NOT NULL,

cabinNumOfSeats INT,

fuelCapacity INT NOT NULL,

);

/\*Creating AIRPLANE table\*/

CREATE TABLE AIRPLANE\_table

(

airplaneID CHAR(8) PRIMARY KEY NOT NULL,

aircraftTypeID CHAR(8) FOREIGN KEY(aircraftTypeID) REFERENCES AIRCRAFTSPECS\_table(aircraftTypeID) NOT NULL,

purchaseDate DATETIME Default '01/02/2014' NOT NULL,

);

/\*Creating FLIGHTSCHEDULE table\*/

CREATE TABLE FLIGHTSCHEDULE\_table

(

flightNumber VARCHAR(6) NOT NULL,

CONSTRAINT FK1\_FlightNumber foreign key (flightNumber)REFERENCES FLIGHTROUTE\_table(flightNumber),

flightDate DATE,

CONSTRAINT PK1\_xyz PRIMARY KEY (flightDate,flightNumber),

statusID CHAR(1) FOREIGN KEY(statusID) REFERENCES FLIGHTSTATUS\_table(statusID) NOT NULL,

CONSTRAINT ck1\_statusID CHECK (statusID='O'OR statusID='C' OR statusID='D'),

airplaneID CHAR(8) FOREIGN KEY(airplaneID)REFERENCES AIRPLANE\_table(airplaneID) NOT NULL,

delayDepartTime TIME ,

delayArrivalTime TIME,

);

/\*Inserting Values into STATES table\*/

INSERT INTO STATES\_table

VALUES

('CA','California'),

('DC','Washington.D.C.'),

('FL','Florida'),

('IL','Illinois'),

('MA','Massachusetts'),

('NY','New York'),

('TX','Texas')

/\*Select all the columns

of all the records

in the STATES table:\*/

SELECT \* FROM STATES\_table

/\*Inserting Values into CITY table\*/

INSERT INTO CITY\_table

VALUES

('C001','Los Angeles','CA'),

('C002','San Francisco','CA'),

('C003','Washington.D.C.','DC'),

('C004','Miami','FL'),

('C005','Orlando','FL'),

('C006','Chicago','IL'),

('C007','Boston','MA'),

('C008','New York','NY'),

('C009','Syracuse','NY')

/\*Select all the columns

of all the records

in the CITY table:\*/

SELECT \* FROM CITY\_table

/\*Inserting Values into AIRPORT table\*/

INSERT INTO AIRPORT\_table

VALUES

('BOS','Rathod','C007'),

('DCA','Ronald Reagan National Airport','C003'),

('IAD','Washington Dulles International Airport','C003'),

('JFK','John F. Kennedy International Airport','C008'),

('LAX','Los Angeles International AIrport','C001'),

('LGA','LaGuardia Airport','C008'),

('MCO','Orlando International Airport','C005'),

('MDW','Chicago Midway International Airport','C006'),

('MIA','Miami International Airport','C004'),

('ORD','Chicago O Hare International Airport','C006'),

('SFO','San Francisco International Airport','C002'),

('SYR','Syracuse Hancook International Airport','C009')

/\*Select all the columns

of all the records

in the AIRPORT table:\*/

SELECT \* FROM AIRPORT\_table

/\*Inserting Values into FLIGHTROUTE table\*/

INSERT INTO FLIGHTROUTE\_table

VALUES

(3310,'SYR','JFK','08:00:00.0000000','09:02:00.0000000'),

(3312,'JFK','SYR','12:20:00.0000000','13:30:00.0000000'),

(3426,'LAX','ORD','11:15:00.0000000','15:05:00.0000000'),

(5063,'BOS','MCO','14:30:00.0000000','18:45:00.0000000')

/\*Select all the columns

of all the records

in the FLIGHTROUTE table:\*/

SELECT \* FROM FLIGHTROUTE\_table

/\*Inserting Values into FLIGHTSTATUS table\*/

INSERT INTO FLIGHTSTATUS\_table

VALUES

('C','Cancelled'),

('D','Delayed'),

('O','On Time')

/\*Select all the columns

of all the records

in the FLIGHTSTATUS table:\*/

SELECT \* FROM FLIGHTSTATUS\_table

/\*Inserting Values into AICRAFTSPECS table\*/

INSERT INTO AIRCRAFTSPECS\_table

VALUES

('AIR1','A321-200',220,7930),

('AIR2','737-600ER',132,6875),

('BOE1','747-400ER',416,63705),

('BOE2','767-300ER',350,23980),

('BOE3','737-600ER',132,6875)

/\*Select all the columns

of all the records

in the AIRCRAFTSPECS table:\*/

SELECT \* FROM AIRCRAFTSPECS\_table

/\*Inserting Values into AIRPLANE table\*/

INSERT INTO AIRPLANE\_table

VALUES

('AP098640','AIR2','2013-03-01'),

('AP239471','AIR1','1900-01-01'),

('AP309814','BOE2','2012-05-22'),

('AP629342','BOE1','1900-01-01'),

('AP872139','BOE3','1900-01-01'),

('AP998911','BOE2','1900-01-01')

/\*Select all the columns

of all the records

in the AIRPLANE table:\*/

SELECT \* FROM AIRPLANE\_table

/\*Inserting Values into FLIGHTSCHEDULE table\*/

INSERT INTO FLIGHTSCHEDULE\_table

VALUES

(3310,'2014-02-10','O','AP629342','',''),

(3310,'2014-02-11','O','AP629342','',''),

(3312,'2014-02-10','O','AP872139','',''),

(3426,'2014-02-12','O','AP239471','',''),

(5063,'2014-02-13','D','AP309814','15:40:00.0000000','20:05:00.0000000')

/\*Select all the columns

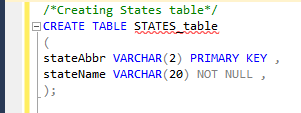
of all the records

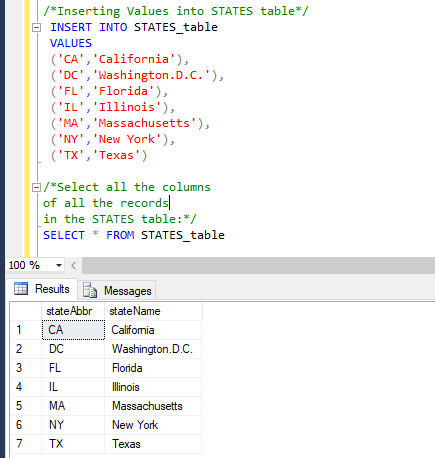
in the FLIGHTSCHEDULE table:\*/

SELECT \* FROM FLIGHTSCHEDULE\_table

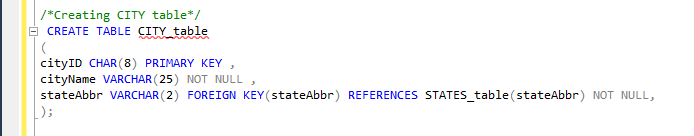
**SQL STATEMENTS AND OUTPUS SCREENSHOTS:**

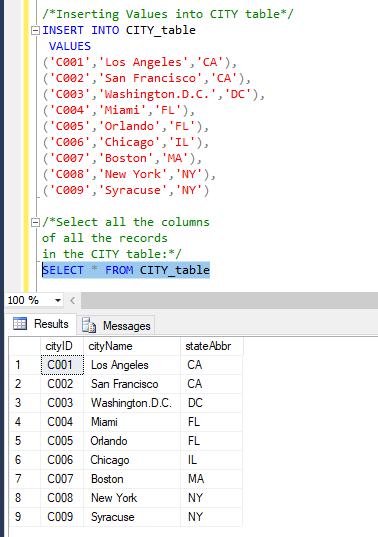
**STATE table:**



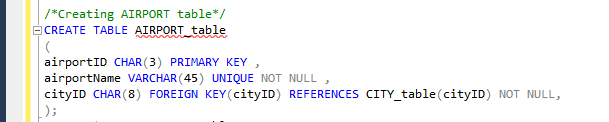


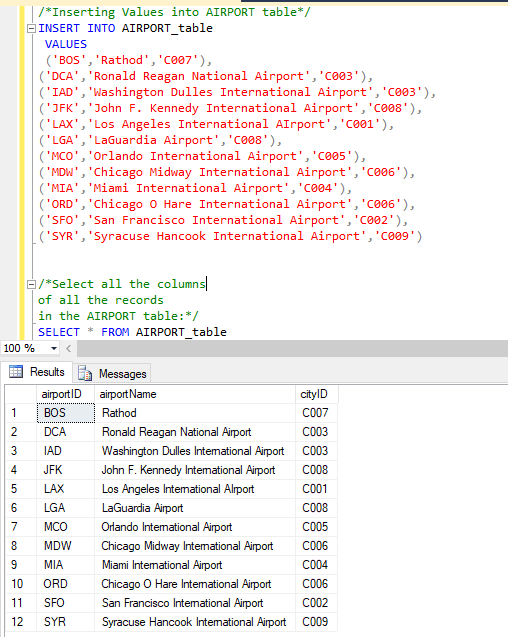
**CITY table:**



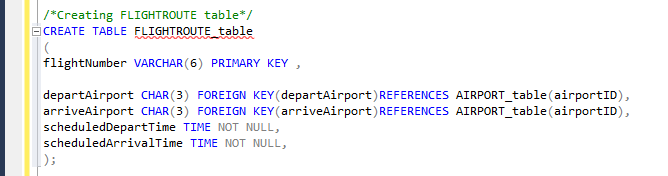


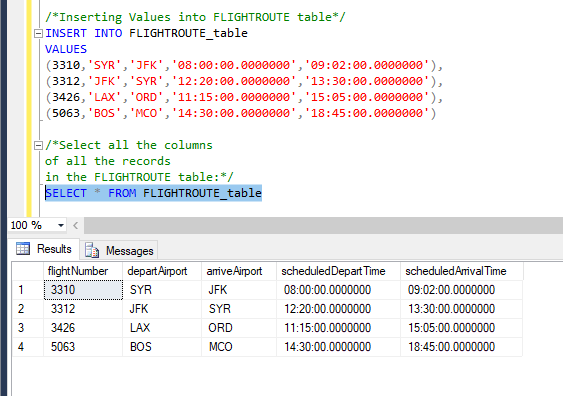
**AIRPORT table:**



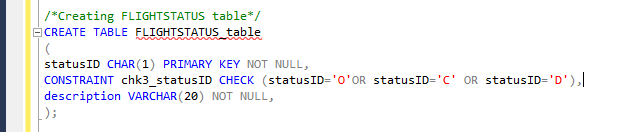


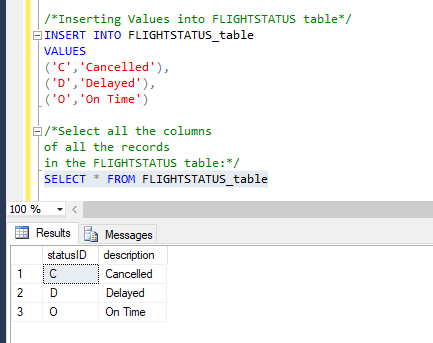
**FLIGHT ROUTE table:**



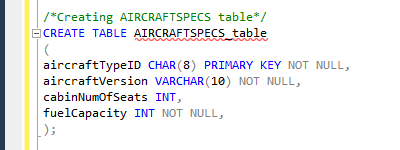


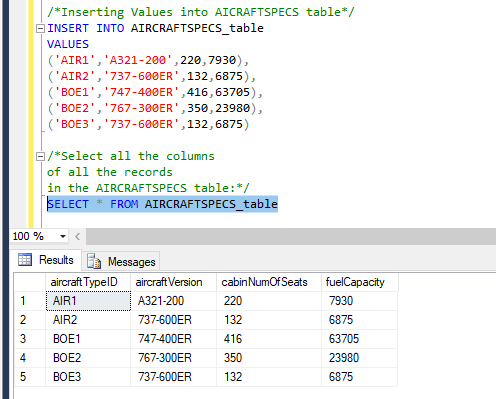
**FLIGHT STATUS table:**



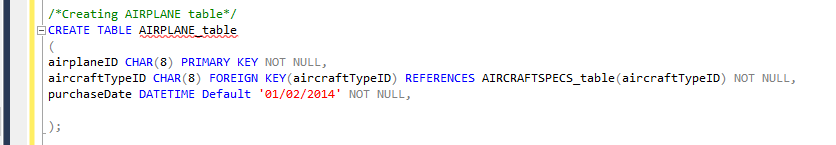


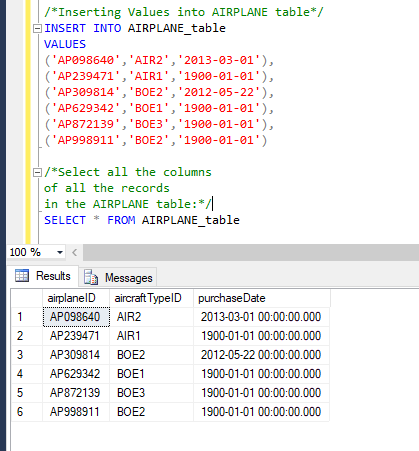
**AIRCRAFTE SPECS table:**



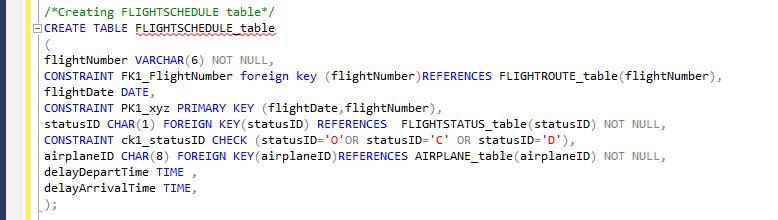


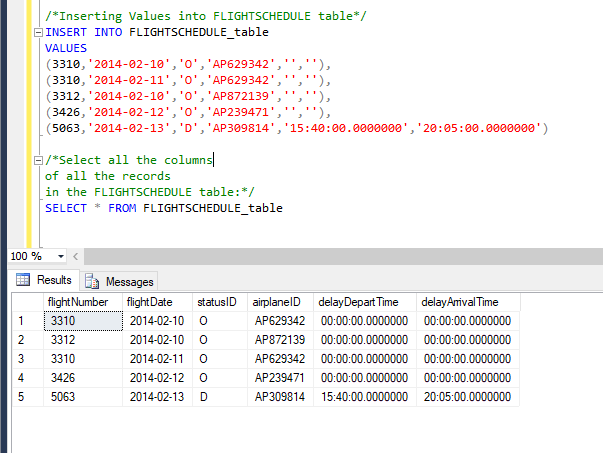
**AIRPLANE table:**





**FLIGHT SCHEDULE table:**





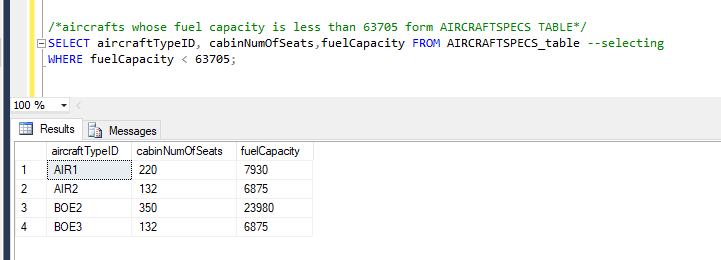
**Queries:**

1. Find all aircrafts whose fuel capacity is less than 63705. Show aircraft id, cabin number of seats and fuel capacity.

/\*aircrafts whose fuel capacity is less than 63705 form AIRCRAFTSPECS TABLE\*/

SELECT aircraftTypeID, cabinNumOfSeats,fuelCapacity FROM AIRCRAFTSPECS\_table

WHERE fuelCapacity < 63705;

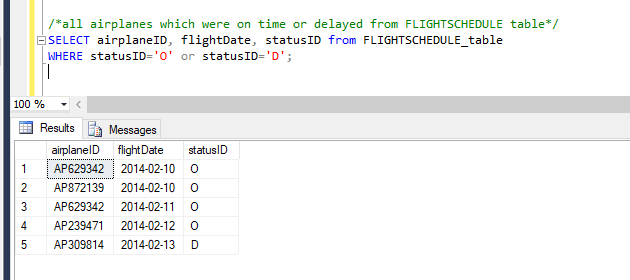


1. Find all airplanes which were on time or delayed. Show only airplane ID, flight date and statusID.

/\*all airplanes which were on time or delayed from FLIGHTSCHEDULE table\*/

SELECT airplaneID, flightDate, statusID from FLIGHTSCHEDULE\_table

WHERE statusID='O' or statusID='D';



1. Find all the airplanes that have been purchased before the year 2013-02-10. Show airplane id and the purchase Date.

/\*all the airplanes that have been purchased before the year 2013-02-10 from AIRPLANE table\*/

SELECT airplaneID, purchaseDate from AIRPLANE\_table

WHERE purchaseDate<'2013-02-10';

