

SQL Experience Project

Fall 2019

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Introduction:

The 45 queries that constitute the SQL Experience will collectively provide you with a good introduction to SQL. Some are quite easy while others are a bit more challenging. Queries in assignment 1 & 2 are worth 3 points each. There is an optional extra credit opportunity to earn an additional 15 points (1 pt/query). Thus a total of 115 points can be earned on the SQL Experience if you attempt and get correct all 45 queries. The SQL Experience is worth 10% of your overall course grade. The assignment due dates are as follows:

- SQL Experience Assignment #1 (15 queries) is due on November 4th..
- SQL Experience Assignment #2 (15 queries) is due on November 18th
- SQL Experience Assignment #3 (15 queries) *optional Extra Credit* is due on Monday November 18th .

The SQL queries you will be working on are based on eight tables that make up a database for the Airline reservation system. The database is stored on the same Oracle database we have been using and is accessible via an internet connection. The server is running Oracle Standard Edition One 11.2.0.2. You will be required to download and install SQL Developer and then connect to the SQL Experience database.

In all cases, please refrain from the temptation that your results are correct the first time output from a query is obtained.
In other words, please study your output in order to verify the accuracy of the result.

Please note that the SQL Experience is NOT a team project. My expectation is that each student will complete every query in these 3 assignments on their own. This certainly does not preclude members of the class from talking with one another about various elements. If I discover that you are sharing queries with other students or that you have copied queries, I will pursue the procedures outlined in the Academic Honesty policy!

Installing SQL Developer 19.2.1 (or most current version) and connecting to the database

Step 1: To begin using the database, you must first download and install SQL Developer 19.2.1 (or most current version). This software can be downloaded from: <https://www.oracle.com/tools/downloads/sqldev-v192-downloads.html> .

Select the download based on your Operating System (Windows, OS X, Linux/Unix). Windows users must use the Windows 32-bit /64-bit download (32-bit version) NOT Windows 64-bit (64-bit version). The steps to follow include:

Downloading & Installing SQL Developer 19.2.1

1. Go to ORACLE.COM and register for a free Oracle Web account
2. Go to the website above and accept OTN License agreement and select the appropriate version of Oracle SQL Developer to download.
3. Login using your Oracle Web Account and download the file
4. Extract the files into a directory on the hard drive (e.g. C:\Program Files\Oracle)

Step 2: You must also have Java SE Developer version 8.0 or higher installed. This software can be downloaded from the following website: <http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html> Windows users should download jdk-8u60-windows-i586.exe, not jdk-8u60-windows-x64.exe (64-bit version). The steps to follow include:

Downloading & Installing Java SE Development Kit

1. Go to the website above and accept the license agreement and select the appropriate version to download
2. Follow the instructions in the install wizard. No optional features are needed. Make note of the directory in which you install the software as you will need it later.
3. Click close to exit the wizard once the software installation is complete

Step 3: Once you have successfully installed both Oracle SQL Developer and Java SE Development Kit 7u51, you are ready to begin.

1. launch SQL Developer
2. The first time only, you will be prompted to enter the directory where Java SE Development Kit 7u51 is installed
3. In the upper left hand pane, right click on "Connections" and choose "New Connection".
4. For connection Name, enter SQL Experience
5. For username and password, enter the following information.
 - a. Username: Your Blackboard Userid
 - b. Password: Your PeopleSoft ID (include leading zeroes, if they exist)
6. Check the "Save Password" box
7. For Hostname enter the following exactly as shown: **192.138.193.71**
8. Verify that the port number is **1522**
9. Press "Connect" to connect to the server.

New / Select Database Connection

Connection Name	Connection Details
New SQL Project	mgrimes@//Sqlexperie...
Orade_2018	mgrimes@//192.138.1...
SQL Experience Projec...	MGRIMES@//Sqlexperie...
Sqlexperience.cjcp50id...	mgrimes@//Sqlexperie...

Connection Name:
 Username:
 Password:
☒ Save Password

Oracle

Connection Type: Role:

Hostname:
 Port:
☒ SID:
☐ Service name:

☐ OS Authentication ☐ Kerberos Authentication

Status :

This can be anything you want
 Your Blackboard Userid
 Your PeopleSoft ID
 IP Address of Oracle Server
 Make sure to change this to 1522

Using SQL Developer to Create, Edit and Execute SQL Queries

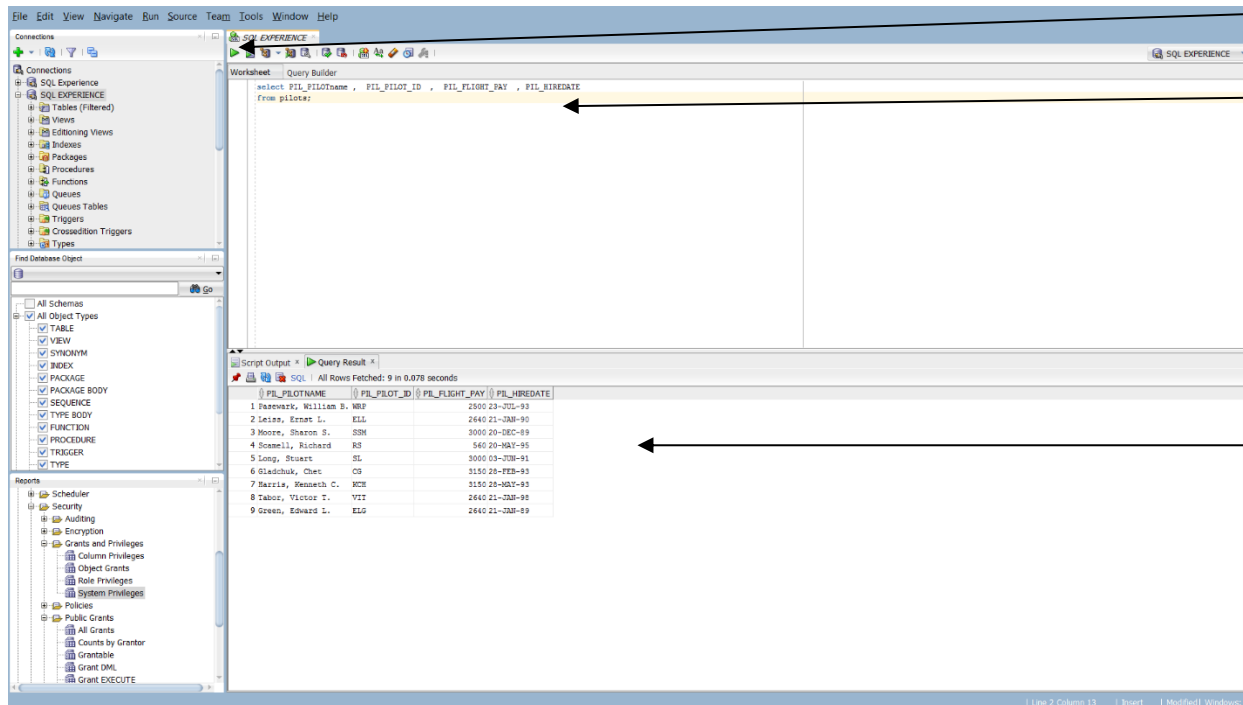
Queries are due at 11.59 p.m. on the due date. You will submit your queries through Blackboard Learn.

There are 3 steps to create and save a query:

1. Draft an SQL query that you believe will result in the data needed.
2. Test/debug in SQL Developer
3. Copy and paste your queries into the "SQL Project #" tests on Blackboard to submit.

Step 1: Draft SQL query that results in the data needed

Enter the query in the worksheet tab on SQL Developer and execute.



Execute Query

Enter query here

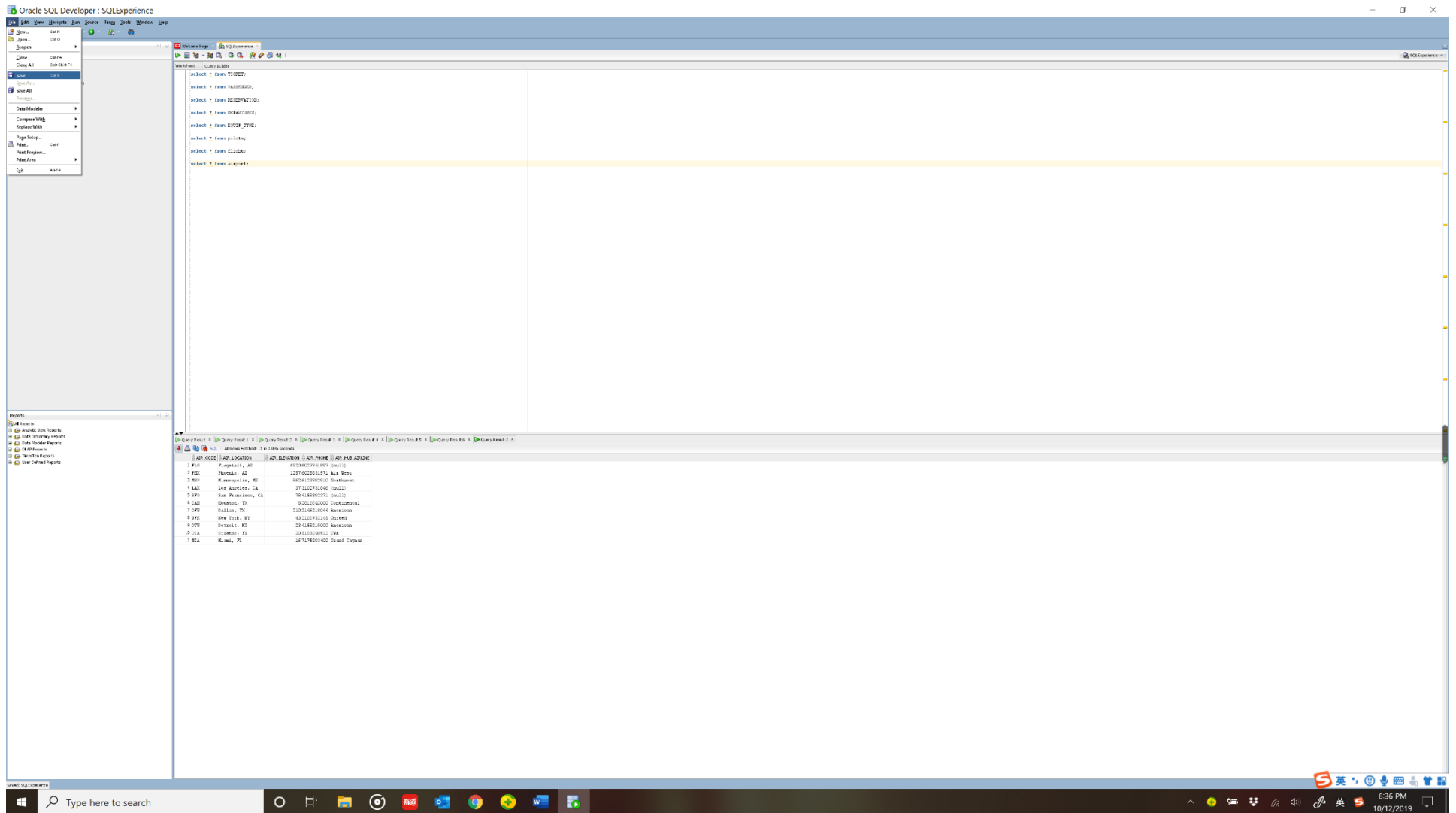
Query output

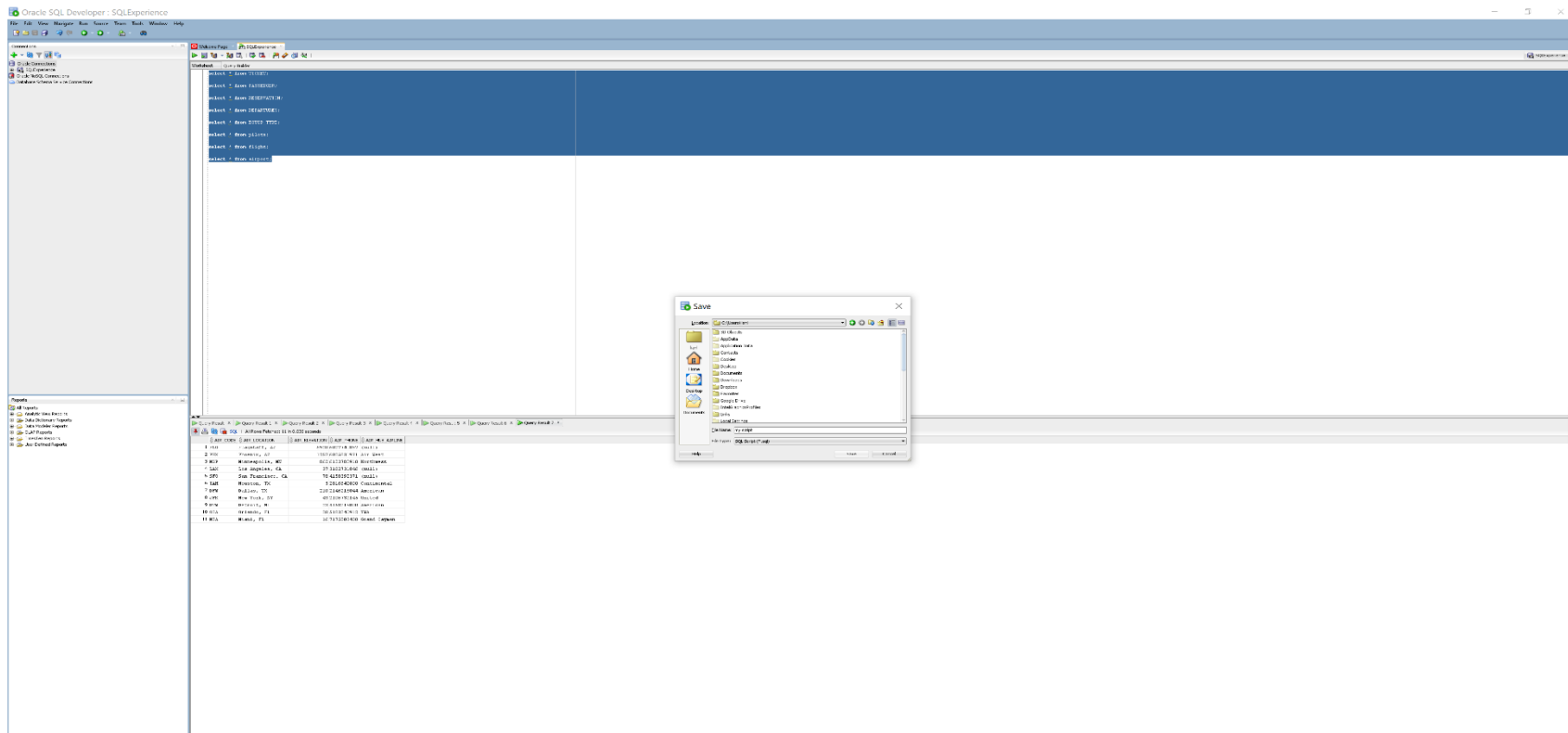
Step 2: Test/debug in SQL Developer

In all cases, please refrain from the temptation that your results are correct the first time output from a query is obtained. In other words, please study your output in order to verify the accuracy of the result. There are many features in SQL Developer to help you create queries, the SQL Developers users guide being available here https://docs.oracle.com/cd/E12151_01/doc.150/e12152.pdf. There are online tutorials.

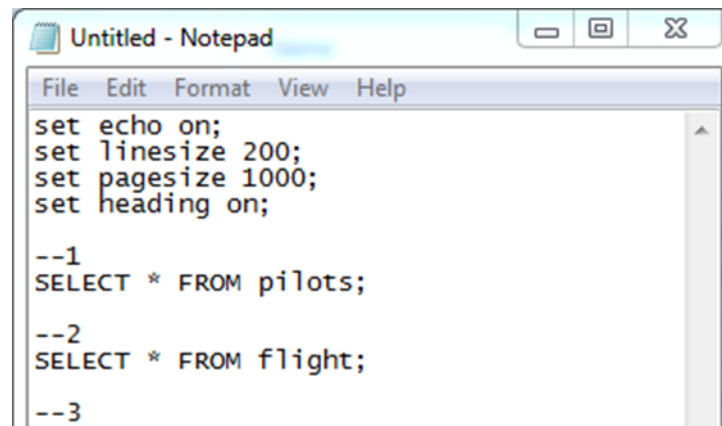
Step 3: Save the queries in a .sql file and a .txt file.

1. Save the script you've finished as a .sql file.





2. Copy and paste the query from the screen into notepad under the appropriate query number and save a .txt file which should look SOMETHING like this:



3. Submit the .sql file and .txt file to blackboard's assignment section.

SQL Assignment 1

(15 Queries): Due November 4th at 11:59 pm

The output for each query should include the column headings shown below the statement of the query itself.

Thus you will find yourself using column aliases frequently. You must follow the instructions outlined in the Instructions for submitting SQL Experience assignments section of this document to prepare you files for submission. Each time you get into SQL*Plus, please make sure to change the linesize to 200 by entering the SQL*Plus command SET LINESIZE 200 and the Page size to 1000 by entering the SET PAGESIZE 1000. By doing this you will ensure that the column heading appear on once and you should never experience any kind of word wrap when executing a query.

```
-- #1 list all the people in the pilots table, order by flight pay and name
```

```
PIL_PILOT_ID      PIL_PILOTNAME  PIL_FLIGHT_PAY  PIL_HIREDATE
-----
```

```
-- #2 List pilot names, city and flight pay for pilots living in either Houston or PHOENIX who make more than 1500 per flight.
```

```
PIL_PILOTNAME      PIL_CITY      PIL_FLIGHT_PAY
-----
```

```
-- #3 select the passengers who have a confirmed ticket, order by passenger name
```

```
PAS_NAME      PAS_CONFIRM_NO      TIC_FLIGHT_NO      TIC_FLIGHT_DATE
```

```
-- #4 List all information on aircraft that have a fuel capacity greater than 2500 fuel or have a miles per gallon greater than 4 miles per gallon and fuel capacity less than 2500 .
```

```
EQ_EQUIP_NO  EQ_EQUIP_T      EQ_SEAT_CAPACITY      EQ_FUEL_CAPACITY  EQ_MILES_PER_GAL
-----
```

```
-- #5 list the number of originating flights from each airport
```



```
FL_ORIG          Number of Originating Flights
-----
```

```
-- #6 list the lane (origination and destination) with the maximum fare from
-- each airport with a fare greater than 100
```

```
fl_ORIG AIR_LOCATION          Maximum Fare
-----
```

```
-- #7 select all information on Boeing aircraft. Hint use pattern matching.
```

```
EQ_EQUIP_NO EQ_EQUIP_TYPE      EQ_SEAT_CAPACITY    EQ_FUEL_CAPACITY    EQ_MILES_PER_GAL
```

```
-- #8 list the airports that are not a designated hub for an airline
```

```
AIR_CODE AIR_LOCATION          AIR_ELEVATION
-----
```

```
-- #9 Produce a unique list of pilot Id's as "Pilot ID" of pilots who
-- piloted more than one departure. Order by pilot id. Hint this
-- will involving joining a table on itself.
```

```
Pilot_id
-----
```

```
-- #10 list all the flights showing the miles flown per dollar (distance/fare)
```

```
FL_FLIGHT_NO FL_ORIG  FL_DEST      FL_DISTANCE    FL_FARE          Miles Flown Per Dollar
-----
```

```
-- #11 Display airport names and number of originating flights as "Number of Originating Flights" .
```

```
AIR_LOCATION          Number of Originating Flights
-----
```

```
-- #12 list the maximum pay, minimum pay and average flight pay by state for pilots.
```

```
pil_state          Maximum Pay          Minimum Pay          Average Flight Pay
```

```
-- #13 Display pilot name and departure date of his most recent flight. Order by pilot name.
```

```
PIL_PILOTNAME           Most Recent Departure Date
-----
```

```
-- #14 Display the age difference in years rounded to 2 decimal places between the oldest
-- and youngest pilot.
```

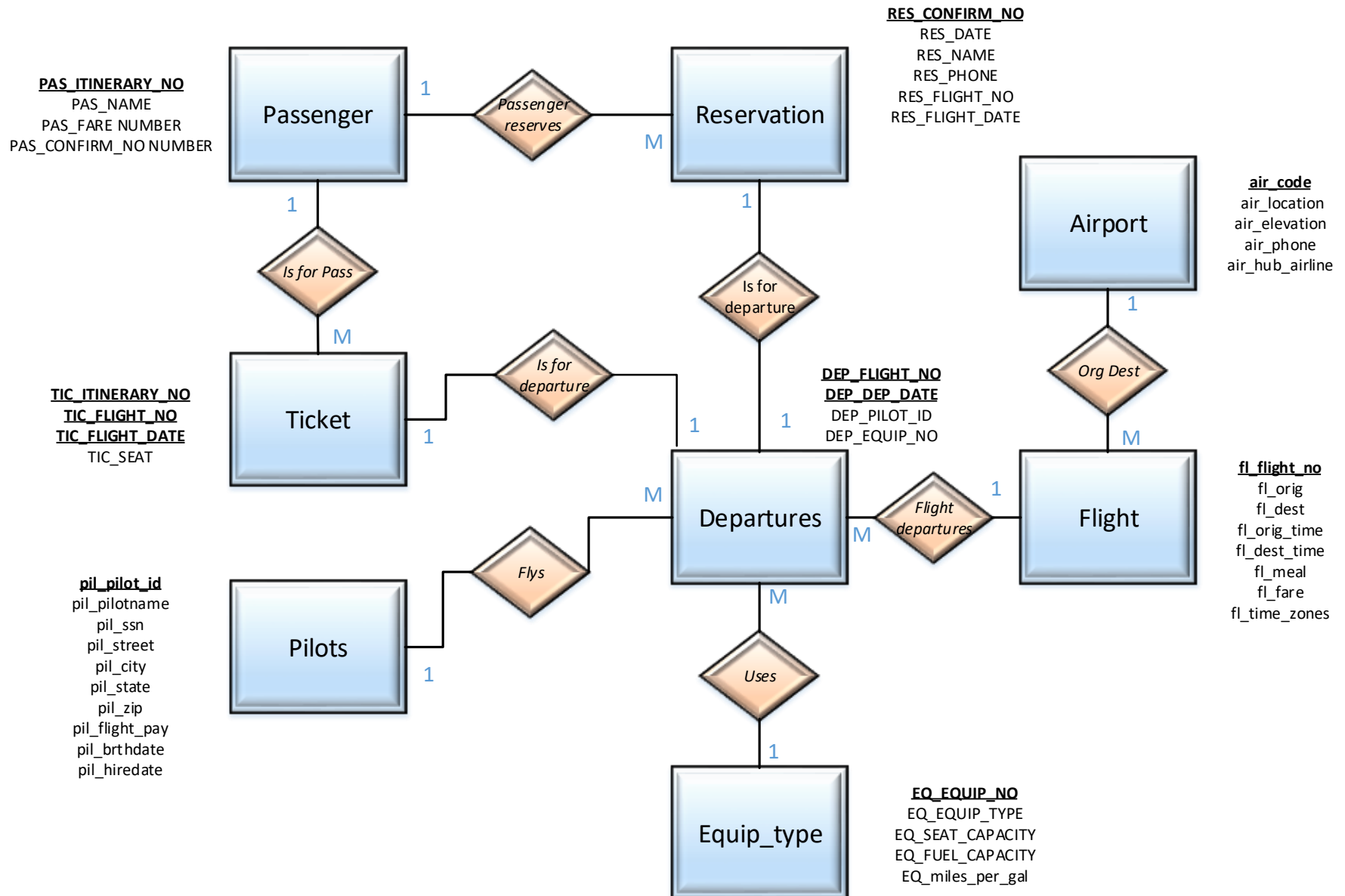
```
Age Difference
-----
```

```
-- #15 For each unique equipment type, List equipment types and maximum miles that can be
-- flown as "Maximum Distance Flown". Order by maximum distance descending.
```

```
EQ_EQUIP_TYPE           Maximum Distance Flown
-----
```

ERD

Flight Reservation Schema - Entity Relationship Diagram



THIS DDL IS FOR INFORMATION PURPOSES ONLY! THERE IS NO NEED TO RUN THIS SCRIPT IN YOUR SQL DEVELOPER SESSION. IF YOU RUN THEM, YOU WILL NOT GET ANY DATA RETURNED FOR YOUR QUERIES.

Tables and Associated Data

```
SQL> describe ticket
```

Name	Null	Type
TIC_ITINERARY_NO	NOT NULL	NUMBER
TIC_FLIGHT_NO	NOT NULL	NUMBER
TIC_FLIGHT_DATE	NOT NULL	DATE
TIC_SEAT		VARCHAR2(3)

```
SQL> select * from TICKET;
```

TIC_ITINERARY_NO	TIC_FLIGHT_NO	TIC_FLIGHT_DATE	TIC_SEAT
1	15	01-APR-17	10D
1	329	01-APR-17	12D
2	15	01-APR-17	10E
2	329	10-APR-17	12E
3	101	15-JUL-17	3D
3	104	23-JUL-17	4D
4	101	15-JUL-17	3C
4	104	23-JUL-17	4C
5	101	15-JUL-17	3B
5	104	20-JUL-17	4B
6	101	18-APR-17	10A
6	104	23-JUL-17	8B
7	101	18-APR-17	10B
7	104	30-JUL-17	8C
8	101	18-APR-17	10C
8	104	23-JUL-17	8D

9	606	27-APR-17	12B
9	691	08-JUL-17	12A
10	606	20-APR-17	12C
11	606	17-MAY-17	12B
11	691	19-MAY-17	13B
12	102	18-APR-17	10B
12	103	19-APR-17	7B
13	102	18-APR-17	7C
13	103	23-APR-17	3C

25 rows selected

SQL> describe passenger

Name	Null	Type
PAS_NAME		VARCHAR2(20)
PAS_ITINERARY_NO	NOT NULL	NUMBER
PAS_FARE		NUMBER
PAS_CONFIRM_NO		NUMBER

SQL> select * from PASSENGER;

PAS_NAME	PAS_ITINERARY_NO	PAS_FARE	PAS_CONFIRM_NO
Ole Olson	1	410	1
Lena Olson	2	98	1
Pete Peterson	3	315	2
Hazel Peterson	4	315	2
David Peterson	5	315	2
Swen Swenson	6	345	3
Olga Swenson	7	315	3
Pete Swenson	8	409	3
Andy Anderson	9	436	4
Gloria Anderson	10	436	4
Torgie Torgenson	11	578.5	5
Andy Anderson	12	560	6
Gloria Anderson	13	312	6

13 rows selected

SQL> describe reservation

Name	Null	Type
RES_CONFIRM_NO	NOT NULL	NUMBER
RES_DATE		DATE
RES_NAME		VARCHAR2(20)

```

RES_PHONE          VARCHAR2(10)
RES_FLIGHT_NO      NUMBER
RES_FLIGHT_DATE    DATE
SQL> select * from RESERVATION;

```

RES_CONFIRM_NO	RES_DATE	RES_NAME	RES_PHONE	RES_FLIGHT_NO	RES_FLIGHT_DATE
1	01-APR-17	Ole Olson	2186942221	15	01-APR-17
2	01-APR-17	Pete Peterson	2186943000	101	15-JUL-17
3	01-APR-17	Swen Swenson	2186948822	101	18-APR-17
4	11-APR-17	Andy Anderson	6025233510	606	21-APR-17
5	17-APR-17	Torgie Torgenson	2082223333	606	17-MAY-17
6	17-APR-17	Andy Anderson	6025233510	102	18-APR-17

6 rows selected

```
SQL> describe departures
```

```

Name          Null      Type
-----
DEP_FLIGHT_NO NOT NULL  NUMBER
DEP_DEP_DATE  NOT NULL  DATE
DEP_PILOT_ID          VARCHAR2(3)
DEP_EQUIP_NO          NUMBER
SQL> select * from DEPARTURES;

```

DEP_FLIGHT_NO	DEP_DEP_DATE	DEP	DEP_EQUIP_NO
15	01-APR-17	WRP	1026
15	28-JUN-17	WRP	1026
15	20-AUG-17	WRP	1026
40	28-JUN-17	SL	1081
40	29-JUN-17	SL	1081
40	20-AUG-17	SL	1081
40	21-AUG-17	SL	1081
40	21-SEP-17	SL	1081
40	22-SEP-17	SL	1081
40	23-SEP-17	SL	1081
40	29-SEP-17	SL	1081
60	19-APR-17	ELL	1194
60	04-JUN-17	ELL	1194
60	05-JUN-17	ELL	1194
60	08-JUN-17	ELL	1194
60	10-JUN-17	ELL	1194
60	20-JUN-17	ELL	1194
60	21-JUN-17	ELL	1194
60	29-JUL-17	ELL	1194
60	24-AUG-17	ELL	1194
60	25-SEP-17	ELL	1194
101	18-APR-17	KCH	1253

101	15-JUL-17	KCH	1253
101	29-SEP-17	KCH	1253
102	02-APR-17	KCH	1253
102	18-APR-17	KCH	1253
102	21-APR-17	KCH	1253
102	25-APR-17	KCH	1253
102	01-MAY-17	KCH	1253
102	18-MAY-17	KCH	1253
102	21-JUN-17	KCH	1253
102	24-AUG-17	KCH	1253
102	25-AUG-17	KCH	1253
103	02-APR-17	KCH	1253
103	19-APR-17	KCH	1253
103	21-APR-17	KCH	1253
103	22-APR-17	KCH	1253
103	23-APR-17	KCH	1253
103	29-APR-17	KCH	1253
103	05-MAY-17	KCH	1253
103	18-MAY-17	KCH	1253
103	21-JUN-17	KCH	1253
103	26-AUG-17	KCH	1253
103	28-AUG-17	KCH	1253
103	29-AUG-17	KCH	1253
104	13-MAY-17	KCH	1253
104	25-MAY-17	KCH	1253
104	02-JUN-17	KCH	1253
104	20-JUL-17	KCH	1253
104	23-JUL-17	KCH	1253
104	30-JUL-17	KCH	1253
104	26-SEP-17	KCH	1253
329	01-APR-17	WRP	1026
329	10-APR-17	WRP	1026
329	20-JUN-17	WRP	1026
329	23-AUG-17	WRP	1026
329	24-AUG-17	WRP	1026
329	25-AUG-17	WRP	1026
329	27-AUG-17	WRP	1026
329	28-AUG-17	WRP	1026
329	22-SEP-17	WRP	1026
400	20-AUG-17	SL	1081
400	21-AUG-17	SL	1081
400	23-AUG-17	SL	1081
400	28-AUG-17	SL	1081
400	21-SEP-17	SL	1081
400	23-SEP-17	SL	1081
400	25-SEP-17	SL	1081
500	02-JUN-17	RS	1368

500	18-JUN-17	RS	1368
500	01-SEP-17	RS	1368
501	05-JUN-17	RS	1368
501	07-JUN-17	RS	1368
501	22-JUN-17	RS	1368
501	29-JUN-17	RS	1368
501	08-SEP-17	RS	1368
501	09-SEP-17	RS	1368
503	28-APR-17	ELG	1489
503	29-APR-17	ELG	1489
503	23-JUL-17	ELG	1489
503	27-JUL-17	ELG	1489
503	29-JUL-17	ELG	1489
503	30-JUL-17	ELG	1489
518	29-APR-17	CG	1345
518	30-APR-17	CG	1345
518	30-MAY-17	CG	1345
518	28-JUN-17	CG	1345
518	29-JUN-17	CG	1345
518	29-SEP-17	CG	1345
521	21-APR-17	CG	1085
521	19-JUL-17	CG	1085
521	20-JUL-17	CG	1085
600	17-APR-17	WRP	1347
600	25-APR-17	WRP	1347
600	21-JUN-17	WRP	1347
600	16-JUL-17	WRP	1347
600	26-AUG-17	WRP	1347
600	25-SEP-17	WRP	1347
604	22-APR-17	CG	1345
604	24-APR-17	CG	1345
604	30-APR-17	CG	1345
604	25-AUG-17	CG	1345
604	22-SEP-17	CG	1345
606	20-APR-17	SL	1081
606	21-APR-17	SL	1081
606	25-APR-17	SL	1081
606	27-APR-17	SL	1081
606	17-MAY-17	SL	1081
606	21-JUN-17	SL	1081
606	15-JUL-17	SL	1081
691	24-APR-17	WRP	1347
691	29-APR-17	WRP	1347
691	13-MAY-17	WRP	1347
691	19-MAY-17	WRP	1347
691	02-JUN-17	WRP	1347
691	28-JUN-17	WRP	1347

691	19-JUL-17	WRP	1347
691	20-JUL-17	WRP	1347
691	23-JUL-17	WRP	1347
691	22-SEP-17	WRP	1347
723	22-APR-17	CG	1085
723	23-APR-17	CG	1085
723	24-APR-17	CG	1085
723	25-APR-17	CG	1085
723	20-JUL-17	CG	1085
723	21-JUL-17	CG	1085
723	26-JUL-17	CG	1085
723	29-JUL-17	CG	1085
1260	18-APR-17	SL	1081
1260	19-APR-17	SL	1081
1260	22-APR-17	SL	1081
1260	29-APR-17	SL	1081
1260	27-JUN-17	SL	1081
1260	23-JUL-17	SL	1081
1260	28-AUG-17	SL	1081
1260	29-AUG-17	SL	1081
1260	01-SEP-17	SL	1081
1260	28-SEP-17	SL	1081
1260	29-SEP-17	SL	1081
15	08-APR-17	WRP	1026
15	08-JUL-17	WRP	1026
15	08-AUG-17	WRP	1026
15	08-SEP-17	WRP	1026
40	08-APR-17	SL	1081
40	08-JUL-17	SL	1081
40	08-AUG-17	SL	1081
40	08-SEP-17	SL	1081
59	08-APR-17	ELL	1194
59	08-JUL-17	ELL	1194
59	08-AUG-17	ELL	1194
59	08-SEP-17	ELL	1194
60	08-APR-17	ELL	1194
60	08-JUL-17	ELL	1194
60	08-AUG-17	ELL	1194
60	08-SEP-17	ELL	1194
101	08-APR-17	KCH	1253
101	08-JUL-17	KCH	1253
101	08-AUG-17	KCH	1253
101	08-SEP-17	KCH	1253
102	08-APR-17	KCH	1253
102	08-JUL-17	KCH	1253
102	08-AUG-17	KCH	1253
102	08-SEP-17	KCH	1253

103	08-APR-17	KCH	1253
103	08-JUL-17	KCH	1253
103	08-AUG-17	KCH	1253
103	08-SEP-17	KCH	1253
104	08-APR-17	KCH	1253
104	08-JUL-17	KCH	1253
104	08-AUG-17	KCH	1253
104	08-SEP-17	KCH	1253
329	08-APR-17	WRP	1026
329	08-JUL-17	WRP	1026
329	08-AUG-17	WRP	1026
329	08-SEP-17	WRP	1026
400	08-APR-17	SL	1081
400	08-JUL-17	SL	1081
400	08-AUG-17	SL	1081
400	08-SEP-17	SL	1081
500	08-APR-17	RS	1368
500	08-JUL-17	RS	1368
500	08-AUG-17	RS	1368
500	08-SEP-17	RS	1368
501	08-APR-17	RS	1368
501	08-JUL-17	RS	1368
501	08-AUG-17	RS	1368
502	08-APR-17	ELG	1489
502	08-JUL-17	ELG	1489
502	08-AUG-17	ELG	1489
502	08-SEP-17	ELG	1489
503	08-APR-17	ELG	1489
503	08-JUL-17	ELG	1489
503	08-AUG-17	ELG	1489
503	08-SEP-17	ELG	1489
518	08-APR-17	CG	1345
518	08-JUL-17	CG	1345
518	08-AUG-17	CG	1345
518	08-SEP-17	CG	1345
521	08-APR-17	CG	1085
521	08-JUL-17	CG	1085
521	08-AUG-17	CG	1085
521	08-SEP-17	CG	1085
600	08-APR-17	WRP	1347
600	08-JUL-17	WRP	1347
600	08-AUG-17	WRP	1347
600	08-SEP-17	WRP	1347
604	08-APR-17	CG	1345
604	08-JUL-17	CG	1345
604	08-AUG-17	CG	1345
604	08-SEP-17	CG	1345

606	08-APR-17	SL	1081
606	08-JUL-17	SL	1081
606	08-AUG-17	SL	1081
606	08-SEP-17	SL	1081
691	08-APR-17	WRP	1347
691	08-JUL-17	WRP	1347
691	08-AUG-17	WRP	1347
691	08-SEP-17	WRP	1347
723	08-APR-17	CG	1085
723	08-JUL-17	CG	1085
723	08-AUG-17	CG	1085
723	08-SEP-17	CG	1085
1260	08-APR-17	SL	1081
1260	08-JUL-17	SL	1081
1260	08-AUG-17	SL	1081
1260	08-SEP-17	SL	1081

226 rows selected

SQL> describe equip_type

Name	Null	Type
EQ_EQUIP_NO	NOT NULL	NUMBER
EQ_EQUIP_TYPE		VARCHAR2(10)
EQ_SEAT_CAPACITY		NUMBER
EQ_FUEL_CAPACITY		NUMBER
EQ_MILES_PER_GAL		NUMBER(5,2)

SQL> select * from EQUIP_TYPE;

EQ_EQUIP_NO	EQ_EQUIP_T	EQ_SEAT_CAPACITY	EQ_FUEL_CAPACITY	EQ_MILES_PER_GAL
1026	BOE 727	188	1882	3.4
1194	DC 7	282	2340	3.8
1080	BOE 727	188	1882	3.4
1368	DC 7	282	2340	3.8
1081	BOE 727	188	1882	3.4
1345	BOE 737	270	2150	4.1
1253	BOE 747	480	2800	3.6
1489	CONCORDE	350	2750	3.1
1347	BOE 737	270	2150	4.1
1082	BOE 727	188	1882	3.4
1346	BOE 737	270	2150	4.1
1083	BOE 727	188	1882	3.4
1084	BOE 727	188	1882	3.4
1085	BOE 727	188	1882	3.4

14 rows selected

SQL> describe pilots

```

Name          Null      Type
-----
PIL_PILOT_ID  NOT NULL  VARCHAR2(3)
PIL_PILOTNAME                VARCHAR2(30)
PIL_SSN                VARCHAR2(9)
PIL_STREET                VARCHAR2(20)
PIL_CITY                VARCHAR2(12)
PIL_STATE                VARCHAR2(2)
PIL_ZIP                VARCHAR2(5)
PIL_FLIGHT_PAY                NUMBER(4)
PIL_BRTHDATE                DATE
PIL_HIREDATE                DATE
SQL> select * from pilots;

```

PIL	PIL_PILOTNAME	PIL_SSN	PIL_STREET	PIL_CITY	PI	PIL_Z	PIL_FLIGHT_PAY	PIL_BRTHDATE	PIL_HIREDATE
WRP	Pasewark, William B.	523451784	64 RHODA AVENUE	PHOENIX	AZ	84326	2500	02-JUL-58	23-JUL-93
ELL	Leiss, Ernst L.	234783222	91 BEVERLY HILL RD	FLAGSTAFF	AZ	85120	2640	12-SEP-53	21-JAN-90
SSM	Moore, Sharon S.	452127055	44 THORNHILL TRAIL	LOS ANGELES	CA	92300	3000	03-SEP-52	20-DEC-89
RS	Scamell, Richard	452094673	1500 EAST RIVERSIDE	CUPERTINO	CA	94212	560	13-FEB-13	20-MAY-95
SL	Long, Stuart	148434500	3722 GEORGETOWN	DALLAS	TX	75090	3000	12-OCT-50	03-JUN-91
CG	Gladchuk, Chet	210453278	519 TALL OAKS DRIVE	HOUSTON	TX	77024	3150	03-JUN-51	28-FEB-93
KCH	Harris, Kenneth C.	211463278	519 GREEN OAKS DRIVE	HOUSTON	TX	77004	3150	03-JUN-70	28-MAY-93
VIT	Tabor, Victor T.	234651322	891 BARONSHIRE	FLAGSTAFF	AZ	85120	2640	12-SEP-73	21-JAN-98
ELG	Green, Edward L.	234781000	9211 CANYON HILL RD	FLAGSTAFF	AZ	85120	2640	12-SEP-63	21-JAN-89

9 rows selected

SQL> describe flight

```

Name          Null      Type
-----
FL_FLIGHT_NO  NOT NULL  NUMBER(6)
FL_ORIG                VARCHAR2(3)
FL_DEST                VARCHAR2(3)
FL_ORIG_TIME                DATE
FL_DEST_TIME                DATE
FL_MEAL                CHAR(1)
FL_FARE                NUMBER
FL_DISTANCE                NUMBER
FL_TIME_ZONES                NUMBER
SQL> select * from flight;

```

FL_FLIGHT_NO	FL	FL	FL_ORIG_TIME	FL_DEST_TIME	F	FL_FARE	FL_DISTANCE	FL_TIME_ZONES
101	FLG	PHX	01-JAN-18	01-JAN-18	S	48.5	200	0
102	PHX	MSP	01-JAN-18	01-JAN-18	L	156	1000	1
103	MSP	PHX	01-JAN-18	01-JAN-18	D	156	1000	-1
104	PHX	FLG	01-JAN-18	01-JAN-18	S	48.5	200	0

15	PHX	LAX	01-JAN-18	01-JAN-18	B	49	400	-1
329	LAX	PHX	01-JAN-18	01-JAN-18		49	400	1
40	PHX	LAX	01-JAN-18	01-JAN-18		49	400	-1
400	LAX	PHX	01-JAN-18	01-JAN-18		49	400	1
600	PHX	SFO	01-JAN-18	01-JAN-18	B	109	750	-1
604	PHX	SFO	01-JAN-18	01-JAN-18	B	109	750	-1
606	PHX	SFO	01-JAN-18	01-JAN-18	L	109	750	-1
198	LAX	SFO	01-JAN-18	01-JAN-18		69	400	1
298	PHX	LAX	01-JAN-18	01-JAN-18		39	400	-1
60	PHX	SFO	01-JAN-18	01-JAN-18	S	139	750	-1
59	SFO	PHX	01-JAN-18	01-JAN-18	S	149	750	1
691	SFO	PHX	01-JAN-18	01-JAN-18		109	750	1
518	SFO	PHX	01-JAN-18	01-JAN-18		109	750	1
1260	SFO	PHX	01-JAN-18	01-JAN-18	D	109	750	1
500	IAH	DFW	01-JAN-18	01-JAN-18		79	250	0
501	DFW	IAH	01-JAN-18	01-JAN-18		79	250	0
502	IAH	JFK	01-JAN-18	01-JAN-18	B	289	1200	-1
503	JFK	IAH	01-JAN-18	01-JAN-18	S	289	1200	1
521	IAH	DTW	01-JAN-18	01-JAN-18	L	218	1000	0
723	DTW	JFK	01-JAN-18	01-JAN-18	S	189	1000	1

24 rows selected

SQL> describe airport

Name	Null	Type
AIR_CODE	NOT NULL	VARCHAR2(3)
AIR_LOCATION		VARCHAR2(20)
AIR_ELEVATION		NUMBER
AIR_PHONE		VARCHAR2(10)
AIR_HUB_AIRLINE		VARCHAR2(20)

SQL> select * from airport;

AIR	AIR_LOCATION	AIR_ELEVATION	AIR_PHONE	AIR_HUB_AIRLINE
FLG	Flagstaff, AZ	6920	6027741897	
PHX	Phoenix, AZ	1257	6025831971	Air West
MSP	Minneapolis, MN	862	6123782910	Northwest
LAX	Los Angeles, CA	37	3102731846	
SFO	San Francisco, CA	78	4158392371	
IAH	Houston, TX	5	2816642000	Continental
DFW	Dallas, TX	210	2146218044	American
JFK	New York, NY	43	2106732145	United
DTW	Detroit, MI	23	4158219000	American
OIA	Orlando, FL	20	5183240912	TWA
MIA	Miami, FL	16	7175203400	Grand Cayman

11 rows selected