Airline Reservation System: Data Dictionary & SQL Code
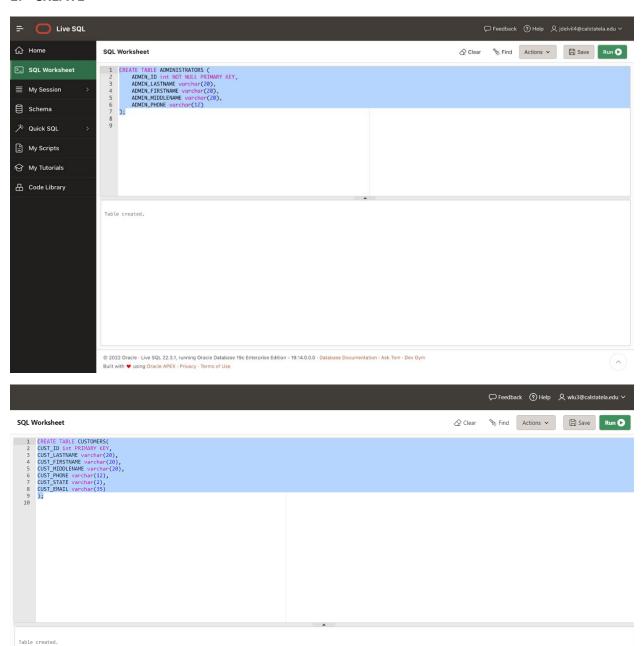
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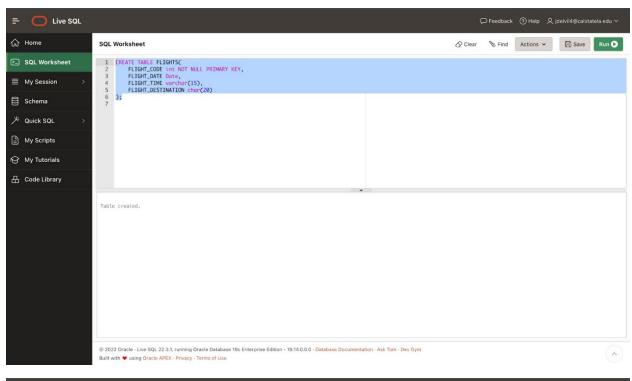CIS 3050 Database Design and Development
Dr. Shilpa Balan
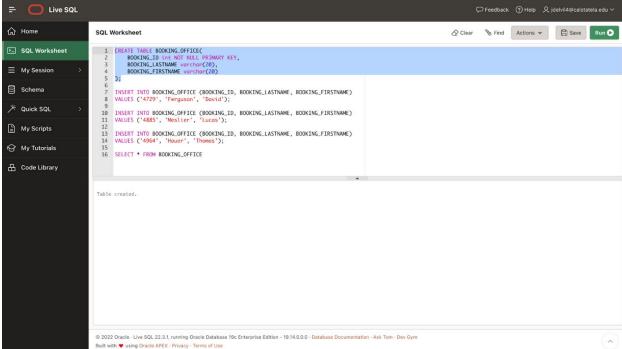December 11, 2022

## Part A
## DATA DICTIONARY

| TABLE NAME | ATTRIBUTE NAME | CONTENTS | TYPE | FORMAT | RANGE | REQUIRED | PK OR FK | FK REFERENCED TABLE |
|---|---|---|---|---|---|---|---|---|
| ADMINISTRATORS | ADMIN_ID | Admin unique ID | INT(10) | 9999 | 1000-1999 | Y | PK | |
| | ADMIN_LASTNAME | Admin last name | VARCHAR(20) | Xxxxxxxxx | | Y | | |
| | ADMIN_FIRSTNAME | Admin first name | VARCHAR(20) | Xxxxxxxxx | | Y | | |
| | ADMIN_MIDDLENAME | Admin middle name | VARCHAR(20) | Xxxxxxxxx | | | | |
| | ADMIN_PHONE | Admin phone number | VARCHAR(12) | 999-999-9999 | | Y | | |
| CUSTOMERS | CUST_ID | Customer unique ID | INT(10) | 9999 | 2000-2999 | Y | PK | |
| | CUST_LASTNAME | Customer last name | VARCHAR(20) | Xxxxxxxxx | | Y | | |
| | CUST_FIRSTNAME | Customer first name | VARCHAR(20) | Xxxxxxxxx | | Y | | |
| | CUST_MIDDLENAME | Customer middle name | VARCHAR(20) | Xxxxxxxxx | | | | |
| | CUST_PHONE | Customer phone number | VARCHAR(12) | 999-999-9999 | | | | |
| | CUST_STATE | Customer state | VARCHAR(2) | Xx | | | | |
| | CUST_EMAIL | Customer email address | VARCHAR(35) | Xxxxxxxxx | | Y | | |
| FLIGHTS | FLIGHT_CODE | Flight unique code | INT(10) | 9999 | 3000-3999 | Y | PK | |
| | FLIGHT_DATE | Flight date | DATE | yyyy-mm-dd | | Y | | |
| | FLIGHT_TIME | Flight time | VARCHAR(15) | 99:99 xx | 01:00-12:59 | Y | | |
| | FLIGHT_DESTINATION | Flight destination | CHAR(20) | Xxxxxxxxx | | Y | | |
| BOOKING OFFICE | BOOKING_ID | Booking office unique ID | INT(10) | 9999 | 4000-4999 | Y | PK | |
| | BOOKING_LASTNAME | Booking officer last name | VARCHAR(20) | Xxxxxxxxx | | Y | | |
| | BOOKING_FIRSTNAME | Booking officer first name | VARCHAR(20) | Xxxxxxxxx | | Y | | |
| AIRLINES | AIRLINE_NAME | Airline name | VARCHAR(20) | Xxxxxxxxx | | Y | PK | |
| | AIRLINE_CODE | Airline reference code | INT(10) | 9999 | 5000-5999 | Y | | |
| | AiRLINE_LOCATION | Airline location | VARCHAR (20) | Xxxxxxxxx | | | | |
| | AIRLINE_TERMINAL | Airline terminal | VARCHAR(20) | Xxxxxxxxx | | | | |
| AIRCRAFT | AIRCRAFT_ID | Aircraft unique ID | INT(10) | 9999 | 6000-6999 | Y | PK | |
| | AIRCRAFT_CAPACITY | Aircraft seating capacity | INT(10) | 9999 | 10-999 | Y | | |
| | AIRLINE_NAME | Airline name | VARCHAR(20) | Xxxxxxxxx | | Y | FK | AIRLINE |
| SEAT | SEAT_NUM | Seat number | VARCHAR(3) | Xxx | | Y | PK | |
| | SEAT_CLASS | Seat class | VARCHAR(15) | Xxxxxxxxx | | Y | | |
| | CUST_ID | Customer unique ID | INT(10) | 9999 | 2000-2999 | Y | FK | CUSTOMER |
| CARRY-ONS | CARRYON_CODE | Carry-on unique code | INT(10) | 9999 | 7000-7999 | Y | PK | |
| | CARRYON_HEIGHT | Carry-on height (in inches) | NUMBER(5,2) | 999.99 | 0-22 | Y | | |
| | CARRYON_LENGTH | Carry-on length (in inches) | NUMBER(5,2) | 999.99 | 0-14 | Y | | |
| | CARRYON_WIDTH | Carry-on width (in inches) | NUMBER(5,2) | 999.99 | 0-9 | Y | | |
| | CUST_ID | Customer reference ID | INT(10) | 9999 | | Y | FK | CUSTOMER |
| LUGGAGE | LUGGAGE_CODE | Luggage unique code | INT(10) | 9999 | 8000-8999 | Y | PK | |
| | LUGGAGE_WEIGHT | Luggage weight (in lbs) | NUMBER(5,2) | 999.99 | 0-50 | | | |
| | CUST_ID | Customer unique ID | INT(10) | 9999 | 2000-2999 | Y | FK | CUSTOMER |
| FLIGHT TICKETS | TICKET_NUM | Ticket unique number | INT(10) | 9999 | 9000-9999 | Y | PK | |
| | TICKET_DEPARTTIME | Ticket departure time | VARCHAR(15) | 99:99 xx | 01:00-12:59 | Y | | |
| | TICKET_ARRIVETIME | Ticket arrival time | VARCHAR(15) | 99:99 xx | 01:00-12:59 | Y | | |
| | TICKET_DEPARTLOCATION | Ticket departure location | VARCHAR(35) | Xxxxxxxxx | | Y | | |
| | TICKET_ARRIVELOCATION | Ticket arrival location | VARCHAR(35) | Xxxxxxxxx | | Y | | |
| | CUST_ID | Customer unique ID | INT(10) | 99999 | 2000-2999 | Y | FK | CUSTOMER |
| | SEAT_NUM | Seat number | VARCHAR(3) | Xxx | | Y | FK | SEAT |

## Part B

## 1. CREATE

**SQL Worksheet**

Clear   Find   Actions ⌄   Save   Run ▶

```
1  CREATE TABLE FLIGHTS(
2      FLIGHT_CODE int NOT NULL PRIMARY KEY,
3      FLIGHT_DATE Date,
4      FLIGHT_TIME varchar(15),
5      FLIGHT_DESTINATION char(20)
6  );
7
```

```
Table created.
```

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**SQL Worksheet**

Clear   Find   Actions ⌄   Save   Run ▶

```
1  CREATE TABLE BOOKING_OFFICE(
2      BOOKING_ID int NOT NULL PRIMARY KEY,
3      BOOKING_LASTNAME varchar(20),
4      BOOKING_FIRSTNAME varchar(20)
5  );
6
7  INSERT INTO BOOKING_OFFICE (BOOKING_ID, BOOKING_LASTNAME, BOOKING_FIRSTNAME)
8  VALUES ('4729', 'Ferguson', 'David');
9
10 INSERT INTO BOOKING_OFFICE (BOOKING_ID, BOOKING_LASTNAME, BOOKING_FIRSTNAME)
11 VALUES ('4885', 'Meslier', 'Lucas');
12
13 INSERT INTO BOOKING_OFFICE (BOOKING_ID, BOOKING_LASTNAME, BOOKING_FIRSTNAME)
14 VALUES ('4964', 'Hauer', 'Thomas');
15
16 SELECT * FROM BOOKING_OFFICE
```

```
Table created.
```

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```
1  CREATE TABLE AIRLINES(
2  AIRLINE_NAME varchar(20) PRIMARY KEY,
3  AIRLINE_CODE int,
4  AIRLINE_LOCATION varchar(20),
5  AIRLINE_TERMINAL varchar(20)
6  );
7
8  ALTER TABLE AIRLINES
9  DROP AIRLINE_TERMINAL;
10
11 INSERT INTO AIRLINES (AIRLINE_NAME, AIRLINE_CODE, AIRLINE_LOCATION)
12 VALUES ('Emirates', '5044', 'LAX');
13
14 INSERT INTO AIRLINES (AIRLINE_NAME, AIRLINE_CODE, AIRLINE_LOCATION)
15 VALUES ('American', '5084', 'BUR');
16
17 INSERT INTO AIRLINES (AIRLINE_NAME, AIRLINE_CODE, AIRLINE_LOCATION)
18 VALUES ('Delta', '5106', 'SEA');
19
```

Table created.

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SQL Worksheet · Clear · Find · Actions · Save · Run

```
1  CREATE TABLE AIRCRAFT (
2      AIRCRAFT_ID int PRIMARY KEY,
3      AIRCRAFT_CAPACITY int,
4      AIRLINE_NAME varchar(20),
5  FOREIGN KEY (AIRLINE_NAME) REFERENCES AIRLINES(AIRLINE_NAME)
6  );
```

Table created.

SQL Worksheet · Clear · Find · Actions · Save · Run

```
1  CREATE TABLE SEAT(
2  SEAT_NUM varchar(3) PRIMARY KEY,
3  SEAT_CLASS varchar(15),
4  CUST_ID int,
5  FOREIGN KEY (CUST_ID) REFERENCES CUSTOMERS(CUST_ID)
6  );
7
```

Table created.

**SQL Worksheet**

⬦ Clear   ✎ Find   [Actions ⌄]   [💾 Save]   [Run ▶]

```
1   CREATE TABLE CARRYONS(
2   CARRYON_CODE int PRIMARY KEY,
3   CARRYON_HEIGHT NUMBER(5,2),
4   CARRYON_LENGTH NUMBER(5,2),
5   CARRYON_WIDTH NUMBER(5,2),
6   CUST_ID int,
7   FOREIGN KEY (CUST_ID) REFERENCES CUSTOMERS(CUST_ID)
8   );
```

Table created.

**SQL Worksheet**

⬦ Clear   ✎ Find   [Actions ⌄]   [💾 Save]   [Run ▶]

```
1   CREATE TABLE LUGGAGE(
2   LUGGAGE_CODE int PRIMARY KEY,
3   LUGGAGE_WEIGHT NUMBER(5,2),
4   CUST_ID int,
5   FOREIGN KEY (CUST_ID) REFERENCES CUSTOMERS(CUST_ID)
6   );
```

Table created.

**SQL Worksheet**

⬦ Clear   ✎ Find   [Actions ⌄]   [💾 Save]   [Run ▶]

```
1    CREATE TABLE TICKET(
2    TICKET_NUM int PRIMARY KEY,
3    TICKET_DEPARTTIME varchar(15),
4    TICKET_ARRIVETIME varchar(15),
5    TICKET_DEPARTLOCATION varchar(35),
6    TICKET_ARRIVELOCATION varchar(35),
7    CUST_ID int,
8    SEAT_NUM varchar(3),
9    FOREIGN KEY (CUST_ID) REFERENCES CUSTOMERS(CUST_ID),
10   FOREIGN KEY (SEAT_NUM) REFERENCES SEAT(SEAT_NUM)
11   );
```

Table created.

## 2. INSERT

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**SQL Worksheet**   Clear   Find   Actions   Save   Run

```sql
 7  INSERT INTO FLIGHTS (FLIGHT_CODE, FLIGHT_DATE, FLIGHT_TIME, FLIGHT_DESTINATION)
 8  VALUES ('3345', DATE '2023-01-07', '5:00 AM', 'Milan');
 9
10  INSERT INTO FLIGHTS (FLIGHT_CODE, FLIGHT_DATE, FLIGHT_TIME, FLIGHT_DESTINATION)
11  VALUES ('3416', DATE '2023-01-15', '4:00 AM', 'Mumbai');
12
13  INSERT INTO FLIGHTS (FLIGHT_CODE, FLIGHT_DATE, FLIGHT_TIME, FLIGHT_DESTINATION)
14  VALUES ('3567', DATE '2023-01-20', '9:00 PM', 'Miami');
15
16  INSERT INTO FLIGHTS (FLIGHT_CODE, FLIGHT_DATE, FLIGHT_TIME, FLIGHT_DESTINATION)
17  VALUES ('3659', DATE '2023-01-22', '10:00 AM', 'Toronto');
18
19  INSERT INTO FLIGHTS (FLIGHT_CODE, FLIGHT_DATE, FLIGHT_TIME, FLIGHT_DESTINATION)
20  VALUES ('3759', DATE '2023-01-27', '7:00 AM', 'London');
21
22  INSERT INTO FLIGHTS (FLIGHT_CODE, FLIGHT_DATE, FLIGHT_TIME, FLIGHT_DESTINATION)
23  VALUES ('3845', DATE '2023-01-30', '2:00 PM', 'Tokyo');
24
25  SELECT * FROM FLIGHTS
```

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

---

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**SQL Worksheet**   Clear   Find   Actions   Save   Run

```sql
 1  INSERT INTO BOOKING_OFFICE (BOOKING_ID, BOOKING_LASTNAME, BOOKING_FIRSTNAME)
 2  VALUES ('4479', 'Felix', 'Jacqueline');
 3
 4  INSERT INTO BOOKING_OFFICE (BOOKING_ID, BOOKING_LASTNAME, BOOKING_FIRSTNAME)
 5  VALUES ('4485', 'Nasheed', 'Amir');
 6
 7  INSERT INTO BOOKING_OFFICE (BOOKING_ID, BOOKING_LASTNAME, BOOKING_FIRSTNAME)
 8  VALUES ('4564', 'Gomez', 'Joseph');
 9
10  INSERT INTO BOOKING_OFFICE (BOOKING_ID, BOOKING_LASTNAME, BOOKING_FIRSTNAME)
11  VALUES ('4629', 'Ferguson', 'David');
12
13  INSERT INTO BOOKING_OFFICE (BOOKING_ID, BOOKING_LASTNAME, BOOKING_FIRSTNAME)
14  VALUES ('4685', 'Meslier', 'Lucas');
15
16  INSERT INTO BOOKING_OFFICE (BOOKING_ID, BOOKING_LASTNAME, BOOKING_FIRSTNAME)
17  VALUES ('4764', 'Hauer', 'Thomas');
18
19  INSERT INTO BOOKING_OFFICE (BOOKING_ID, BOOKING_LASTNAME, BOOKING_FIRSTNAME)
```

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

SQL Worksheet                                           Clear    Find    Actions    Save    Run

```
12
13  INSERT INTO AIRLINES (AIRLINE_NAME, AIRLINE_CODE, AIRLINE_LOCATION)
14  VALUES ('American', '5084', 'BUR');
15
16  INSERT INTO AIRLINES (AIRLINE_NAME, AIRLINE_CODE, AIRLINE_LOCATION)
17  VALUES ('Delta', '5106', 'SEA');
18
19  INSERT INTO AIRLINES (AIRLINE_NAME, AIRLINE_CODE, AIRLINE_LOCATION)
20  VALUES ('Spirit', '5168', 'LAS');
21
22  INSERT INTO AIRLINES (AIRLINE_NAME, AIRLINE_CODE, AIRLINE_LOCATION)
23  VALUES ('Southwest', '5243', 'PHX');
24
25  INSERT INTO AIRLINES (AIRLINE_NAME, AIRLINE_CODE, AIRLINE_LOCATION)
26  VALUES ('JetBlue', '5277', 'IAH');
27
28  INSERT INTO AIRLINES (AIRLINE_NAME, AIRLINE_CODE, AIRLINE_LOCATION)
29  VALUES ('Air Canada', '5339', 'YYZ');
30
```

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

SQL Worksheet                                           Clear    Find    Actions    Save    Run

```
11  INSERT INTO AIRCRAFT (AIRCRAFT_ID, AIRCRAFT_CAPACITY, AIRLINE_NAME)
12  VALUES ('6312', '130', 'American');
13
14  INSERT INTO AIRCRAFT (AIRCRAFT_ID, AIRCRAFT_CAPACITY, AIRLINE_NAME)
15  VALUES ('6334', '144', 'Delta');
16
17  INSERT INTO AIRCRAFT (AIRCRAFT_ID, AIRCRAFT_CAPACITY, AIRLINE_NAME)
18  VALUES ('6355', '150', 'Spirit');
19
20  INSERT INTO AIRCRAFT (AIRCRAFT_ID, AIRCRAFT_CAPACITY, AIRLINE_NAME)
21  VALUES ('6467', '150', 'Southwest');
22
23  INSERT INTO AIRCRAFT (AIRCRAFT_ID, AIRCRAFT_CAPACITY, AIRLINE_NAME)
24  VALUES ('6489', '140', 'JetBlue');
25
26  INSERT INTO AIRCRAFT (AIRCRAFT_ID, AIRCRAFT_CAPACITY, AIRLINE_NAME)
27  VALUES ('6675', '150', 'Air Canada');
28
29  INSERT INTO AIRCRAFT (AIRCRAFT_ID, AIRCRAFT_CAPACITY, AIRLINE_NAME)
30  VALUES ('6690', '150', 'Gulf Air');
```

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

**SQL Worksheet**

◇ Clear  ⚲ Find  Actions ⌄  🖫 Save  Run ▶

```
 1   INSERT INTO SEAT (SEAT_NUM, SEAT_CLASS, CUST_ID) VALUES ('25W', 'Economy', '2950');
 2
 3   INSERT INTO SEAT (SEAT_NUM, SEAT_CLASS, CUST_ID) VALUES ('62Z', 'Business', '2872');
 4
 5   INSERT INTO SEAT (SEAT_NUM, SEAT_CLASS, CUST_ID) VALUES ('22B', 'Economy', '2734');
 6
 7   INSERT INTO SEAT (SEAT_NUM, SEAT_CLASS, CUST_ID) VALUES ('25L', 'First Class', '2139');
 8
 9   INSERT INTO SEAT (SEAT_NUM, SEAT_CLASS, CUST_ID) VALUES ('8A', 'First Class', '2490');
10
11   INSERT INTO SEAT (SEAT_NUM, SEAT_CLASS, CUST_ID) VALUES ('35T', 'Economy', '2195');
12
13   INSERT INTO SEAT (SEAT_NUM, SEAT_CLASS, CUST_ID) VALUES ('43H', 'Economy', '2113');
14
15   INSERT INTO SEAT (SEAT_NUM, SEAT_CLASS, CUST_ID) VALUES ('13Z', 'Business', '2514');
```

```
1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.
```

**SQL Worksheet**

◇ Clear  ⚲ Find  Actions ⌄  🖫 Save  Run ▶

```
 1   INSERT INTO CARRYONS (CARRYON_CODE, CARRYON_HEIGHT, CARRYON_LENGTH, CARRYON_WIDTH, CUST_ID)
 2   VALUES ('7062', '11', '1', '2', '2872');
 3
 4   INSERT INTO CARRYONS (CARRYON_CODE, CARRYON_HEIGHT, CARRYON_LENGTH, CARRYON_WIDTH, CUST_ID)
 5   VALUES ('7043', '6', '14', '7', '2872');
 6
 7   INSERT INTO CARRYONS (CARRYON_CODE, CARRYON_HEIGHT, CARRYON_LENGTH, CARRYON_WIDTH, CUST_ID)
 8   VALUES ('7379', '5', '7', '2', '2113');
 9
10   INSERT INTO CARRYONS (CARRYON_CODE, CARRYON_HEIGHT, CARRYON_LENGTH, CARRYON_WIDTH, CUST_ID)
11   VALUES ('7208', '19', '8', '3', '2950');
12
13   INSERT INTO CARRYONS (CARRYON_CODE, CARRYON_HEIGHT, CARRYON_LENGTH, CARRYON_WIDTH, CUST_ID)
14   VALUES ('7339', '11', '5', '2', '2195');
15
16   INSERT INTO CARRYONS (CARRYON_CODE, CARRYON_HEIGHT, CARRYON_LENGTH, CARRYON_WIDTH, CUST_ID)
17   VALUES ('7177', '6', '11', '4', '2490');
18
19   INSERT INTO CARRYONS (CARRYON_CODE, CARRYON_HEIGHT, CARRYON_LENGTH, CARRYON_WIDTH, CUST_ID)
20   VALUES ('7217', '3', '9', '6', '2514');
21
22   INSERT INTO CARRYONS (CARRYON_CODE, CARRYON_HEIGHT, CARRYON_LENGTH, CARRYON_WIDTH, CUST_ID)
23   VALUES ('7724', '8', '10', '5', '2139');
```

```
1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.
```

**SQL Worksheet**  ⬧ Clear  ⚲ Find  Actions ⌄  ⊟ Save  Run ▶

```
 1  INSERT INTO LUGGAGE (LUGGAGE_CODE, LUGGAGE_WEIGHT, CUST_ID) VALUES ('8207', '35.2', '2950');
 2
 3  INSERT INTO LUGGAGE (LUGGAGE_CODE, LUGGAGE_WEIGHT, CUST_ID) VALUES ('8815', '29', '2872');
 4
 5  INSERT INTO LUGGAGE (LUGGAGE_CODE, LUGGAGE_WEIGHT, CUST_ID) VALUES ('8251', '9.5', '2490');
 6
 7  INSERT INTO LUGGAGE (LUGGAGE_CODE, LUGGAGE_WEIGHT, CUST_ID) VALUES ('8309', '4', '2195');
 8
 9  INSERT INTO LUGGAGE (LUGGAGE_CODE, LUGGAGE_WEIGHT, CUST_ID) VALUES ('8683', '48', '2139');
10
11  INSERT INTO LUGGAGE (LUGGAGE_CODE, LUGGAGE_WEIGHT, CUST_ID) VALUES ('8933', '16.7', '2113');
12
13  INSERT INTO LUGGAGE (LUGGAGE_CODE, LUGGAGE_WEIGHT, CUST_ID) VALUES ('8708', '13.9', '2514');
14
15  INSERT INTO LUGGAGE (LUGGAGE_CODE, LUGGAGE_WEIGHT, CUST_ID) VALUES ('8473', '6', '2195');
```

```
1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.
```

**SQL Worksheet**  ⬧ Clear  ⚲ Find  Actions ⌄  ⊟ Save  Run ▶

```
 1  INSERT INTO TICKET (TICKET_NUM, TICKET_DEPARTTIME, TICKET_ARRIVETIME, TICKET_DEPARTLOCATION, TICKET_ARRIVELOCATION, CUST_ID, SEAT_NUM)
 2  VALUES ('9780', '8:00 am' , '10:00 am', 'Los Angeles', 'Las Vegas', '2113', '43H');
 3
 4  INSERT INTO TICKET (TICKET_NUM, TICKET_DEPARTTIME, TICKET_ARRIVETIME, TICKET_DEPARTLOCATION, TICKET_ARRIVELOCATION, CUST_ID, SEAT_NUM)
 5  VALUES ('9342', '12:00 pm' , '2:15 am', 'New York', 'Japan', '2950', '25W');
 6
 7  INSERT INTO TICKET (TICKET_NUM, TICKET_DEPARTTIME, TICKET_ARRIVETIME, TICKET_DEPARTLOCATION, TICKET_ARRIVELOCATION, CUST_ID, SEAT_NUM)
 8  VALUES ('9257', '2:00 pm' , '6:30 pm', 'Austin', 'Portland', '2490', '8A');
 9
10  INSERT INTO TICKET (TICKET_NUM, TICKET_DEPARTTIME, TICKET_ARRIVETIME, TICKET_DEPARTLOCATION, TICKET_ARRIVELOCATION, CUST_ID, SEAT_NUM)
11  VALUES ('9945', '8:00 am' , '1:20 pm', 'Seattle', 'Orlando', '2734', '22B');
12
13  INSERT INTO TICKET (TICKET_NUM, TICKET_DEPARTTIME, TICKET_ARRIVETIME, TICKET_DEPARTLOCATION, TICKET_ARRIVELOCATION, CUST_ID, SEAT_NUM)
14  VALUES ('9983', '7:00 am' , '8:30 am', 'Los Angeles', 'San Francisco', '2872', '62Z');
15
16  INSERT INTO TICKET (TICKET_NUM, TICKET_DEPARTTIME, TICKET_ARRIVETIME, TICKET_DEPARTLOCATION, TICKET_ARRIVELOCATION, CUST_ID, SEAT_NUM)
17  VALUES ('9582', '12:00 am' , '4:45 am', 'Oklahoma City', 'Toronto', '2139', '25L');
18
19  INSERT INTO TICKET (TICKET_NUM, TICKET_DEPARTTIME, TICKET_ARRIVETIME, TICKET_DEPARTLOCATION, TICKET_ARRIVELOCATION, CUST_ID, SEAT_NUM)
20  VALUES ('9207', '5:00 pm' , '2:20 am', 'Chicago', 'Honolulu', '2514', '13Z');
21
22  INSERT INTO TICKET (TICKET_NUM, TICKET_DEPARTTIME, TICKET_ARRIVETIME, TICKET_DEPARTLOCATION, TICKET_ARRIVELOCATION, CUST_ID, SEAT_NUM)
23  VALUES ('9100', '9:00 am' , '2:30 pm', 'Maui', 'Los Angeles', '2195', '35T');
```

```
1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.
```

## 3. SELECT

**SQL Worksheet**

Clear   Find   Actions   Save   Run

```
 7   INSERT INTO FLIGHTS (FLIGHT_CODE, FLIGHT_DATE, FLIGHT_TIME, FLIGHT_DESTINATION)
 8   VALUES ('3345', DATE '2023-01-07', '5:00 AM', 'Milan');
 9
10   INSERT INTO FLIGHTS (FLIGHT_CODE, FLIGHT_DATE, FLIGHT_TIME, FLIGHT_DESTINATION)
11   VALUES ('3416', DATE '2023-01-15', '4:00 AM', 'Mumbai');
12
13   INSERT INTO FLIGHTS (FLIGHT_CODE, FLIGHT_DATE, FLIGHT_TIME, FLIGHT_DESTINATION)
14   VALUES ('3567', DATE '2023-01-20', '9:00 PM', 'Miami');
15
16   INSERT INTO FLIGHTS (FLIGHT_CODE, FLIGHT_DATE, FLIGHT_TIME, FLIGHT_DESTINATION)
17   VALUES ('3659', DATE '2023-01-22', '10:00 AM', 'Toronto');
18
19   INSERT INTO FLIGHTS (FLIGHT_CODE, FLIGHT_DATE, FLIGHT_TIME, FLIGHT_DESTINATION)
20   VALUES ('3759', DATE '2023-01-27', '7:00 AM', 'London');
21
22   INSERT INTO FLIGHTS (FLIGHT_CODE, FLIGHT_DATE, FLIGHT_TIME, FLIGHT_DESTINATION)
23   VALUES ('3845', DATE '2023-01-30', '2:00 PM', 'Tokyo');
24
25   SELECT * FROM FLIGHTS
```

| FLIGHT_CODE | FLIGHT_DATE | FLIGHT_TIME | FLIGHT_DESTINATION |
|---|---|---|---|
| 3030 | 04-JAN-23 | 12:00 PM | Amsterdam |
| 3303 | 05-JAN-23 | 1:00 PM | Shanghai |
| 3345 | 07-JAN-23 | 5:00 AM | Milan |
| 3416 | 15-JAN-23 | 4:00 AM | Mumbai |
| 3567 | 20-JAN-23 | 9:00 PM | Miami |
| 3659 | 22-JAN-23 | 10:00 AM | Toronto |
| 3759 | 27-JAN-23 | 7:00 AM | London |
| 3845 | 30-JAN-23 | 2:00 PM | Tokyo |

Download CSV
8 rows selected.

---

**SQL Worksheet**

Clear   Find   Actions   Save   Run

```
 8   VALUES ('4564', 'Gomez', 'Joseph');
 9
10   INSERT INTO BOOKING_OFFICE (BOOKING_ID, BOOKING_LASTNAME, BOOKING_FIRSTNAME)
11   VALUES ('4629', 'Ferguson', 'David');
12
13   INSERT INTO BOOKING_OFFICE (BOOKING_ID, BOOKING_LASTNAME, BOOKING_FIRSTNAME)
14   VALUES ('4685', 'Meslier', 'Lucas');
15
16   INSERT INTO BOOKING_OFFICE (BOOKING_ID, BOOKING_LASTNAME, BOOKING_FIRSTNAME)
17   VALUES ('4764', 'Hauer', 'Thomas');
18
19   INSERT INTO BOOKING_OFFICE (BOOKING_ID, BOOKING_LASTNAME, BOOKING_FIRSTNAME)
20   VALUES ('4885', 'Georgiou', 'Adonis');
21
22   INSERT INTO BOOKING_OFFICE (BOOKING_ID, BOOKING_LASTNAME, BOOKING_FIRSTNAME)
23   VALUES ('4964', 'Sharma', 'Daksha');
24
25
26   SELECT * FROM BOOKING_OFFICE
```

| BOOKING_ID | BOOKING_LASTNAME | BOOKING_FIRSTNAME |
|---|---|---|
| 4479 | Felix | Jacqueline |
| 4485 | Nasheed | Amir |
| 4564 | Gomez | Joseph |
| 4629 | Ferguson | David |
| 4685 | Meslier | Lucas |
| 4764 | Hauer | Thomas |
| 4885 | Georgiou | Adonis |
| 4964 | Sharma | Daksha |

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8 rows selected.

SQL Worksheet

Clear  Find  Actions  Save  Run

```
20  INSERT INTO AIRLINES (AIRLINE_NAME, AIRLINE_CODE, AIRLINE_LOCATION)
21  VALUES ('Spirit', '5168', 'LAS');
22
23  INSERT INTO AIRLINES (AIRLINE_NAME, AIRLINE_CODE, AIRLINE_LOCATION)
24  VALUES ('Southwest', '5243', 'PHX');
25
26  INSERT INTO AIRLINES (AIRLINE_NAME, AIRLINE_CODE, AIRLINE_LOCATION)
27  VALUES ('JetBlue', '5277', 'IAH');
28
29  INSERT INTO AIRLINES (AIRLINE_NAME, AIRLINE_CODE, AIRLINE_LOCATION)
30  VALUES ('Air Canada', '5339', 'YYZ');
31
32  INSERT INTO AIRLINES (AIRLINE_NAME, AIRLINE_CODE, AIRLINE_LOCATION)
33  VALUES ('Gulf Air', '5397', 'PDX');
34
35  ALTER TABLE AIRLINES
36  DROP COLUMN AIRLINE_TERMINAL;
37
38  SELECT * FROM AIRLINES
```

| AIRLINE_NAME | AIRLINE_CODE | AIRLINE_LOCATION |
|---|---|---|
| Emirates | 5044 | LAX |
| American | 5084 | BUR |
| Delta | 5106 | SEA |
| Spirit | 5168 | LAS |
| Southwest | 5243 | PHX |
| JetBlue | 5277 | IAH |
| Air Canada | 5339 | YYZ |
| Gulf Air | 5397 | PDX |

Download CSV
8 rows selected.

SQL Worksheet

Clear  Find  Actions  Save  Run

```
13
14  INSERT INTO AIRCRAFT (AIRCRAFT_ID, AIRCRAFT_CAPACITY, AIRLINE_NAME)
15  VALUES ('6334', '144', 'Delta');
16
17  INSERT INTO AIRCRAFT (AIRCRAFT_ID, AIRCRAFT_CAPACITY, AIRLINE_NAME)
18  VALUES ('6355', '150', 'Spirit');
19
20  INSERT INTO AIRCRAFT (AIRCRAFT_ID, AIRCRAFT_CAPACITY, AIRLINE_NAME)
21  VALUES ('6467', '150', 'Southwest');
22
23  INSERT INTO AIRCRAFT (AIRCRAFT_ID, AIRCRAFT_CAPACITY, AIRLINE_NAME)
24  VALUES ('6489', '140', 'JetBlue');
25
26  INSERT INTO AIRCRAFT (AIRCRAFT_ID, AIRCRAFT_CAPACITY, AIRLINE_NAME)
27  VALUES ('6675', '150', 'Air Canada');
28
29  INSERT INTO AIRCRAFT (AIRCRAFT_ID, AIRCRAFT_CAPACITY, AIRLINE_NAME)
30  VALUES ('6690', '150', 'Gulf Air');
31
32  SELECT * FROM AIRCRAFT
```

| AIRCRAFT_ID | AIRCRAFT_CAPACITY | AIRLINE_NAME |
|---|---|---|
| 6231 | 150 | Emirates |
| 6312 | 130 | American |
| 6334 | 144 | Delta |
| 6355 | 150 | Spirit |
| 6467 | 150 | Southwest |
| 6489 | 140 | JetBlue |
| 6675 | 150 | Air Canada |
| 6690 | 150 | Gulf Air |

Download CSV
8 rows selected.

**SQL Worksheet**

⊘ Clear    🔍 Find    Actions ⌄    💾 Save    **Run ▶**

```
1  SELECT * FROM SEAT;
```

| SEAT_NUM | SEAT_CLASS | CUST_ID |
|----------|------------|---------|
| 25W | Economy | 2950 |
| 62Z | Business | 2872 |
| 22B | Economy | 2734 |
| 25L | First Class | 2139 |
| 8A | First Class | 2490 |
| 35T | Economy | 2195 |
| 43H | Economy | 2113 |
| 13Z | Business | 2514 |

Download CSV
8 rows selected.

**SQL Worksheet**

⊘ Clear    🔍 Find    Actions ⌄    💾 Save    **Run ▶**

```
1  SELECT * FROM CARRYONS;
2
```

| CARRYON_CODE | CARRYON_HEIGHT | CARRYON_LENGTH | CARRYON_WIDTH | CUST_ID |
|--------------|----------------|----------------|---------------|---------|
| 7062 | 11 | 1 | 2 | 2872 |
| 7043 | 6 | 14 | 7 | 2872 |
| 7379 | 5 | 7 | 2 | 2113 |
| 7208 | 19 | 8 | 3 | 2950 |
| 7339 | 11 | 5 | 2 | 2195 |
| 7177 | 6 | 11 | 4 | 2490 |
| 7217 | 3 | 9 | 6 | 2514 |
| 7724 | 8 | 10 | 5 | 2139 |

Download CSV
8 rows selected.

**SQL Worksheet**

```
1   SELECT * FROM LUGGAGE;
```

| LUGGAGE_CODE | LUGGAGE_WEIGHT | CUST_ID |
|---|---|---|
| 8207 | 35.2 | 2950 |
| 8815 | 29 | 2872 |
| 8251 | 9.5 | 2490 |
| 8309 | 4 | 2195 |
| 8683 | 48 | 2139 |
| 8933 | 16.7 | 2113 |
| 8708 | 13.9 | 2514 |
| 8473 | 6 | 2195 |

Download CSV
8 rows selected.

**SQL Worksheet**

```
1   SELECT * FROM TICKET;
```

| TICKET_NUM | TICKET_DEPARTTIME | TICKET_ARRIVETIME | TICKET_DEPARTLOCATION | TICKET_ARRIVELOCATION | CUST_ID | SEAT_NUM |
|---|---|---|---|---|---|---|
| 9780 | 8:00 am | 10:00 am | Los Angeles | Las Vegas | 2113 | 43H |
| 9342 | 12:00 pm | 2:15 am | New York | Japan | 2950 | 25W |
| 9257 | 2:00 pm | 6:30 pm | Austin | Portland | 2490 | 8A |
| 9945 | 8:00 am | 1:20 pm | Seattle | Orlando | 2734 | 22B |
| 9983 | 7:00 am | 8:30 am | Los Angeles | San Francisco | 2872 | 62Z |
| 9582 | 12:00 am | 4:45 am | Oklahoma City | Toronto | 2139 | 25L |
| 9207 | 5:00 pm | 2:20 am | Chicago | Honolulu | 2514 | 13Z |
| 9100 | 9:00 am | 2:30 pm | Maui | Los Angeles | 2195 | 35T |

Download CSV
8 rows selected.

## 4. UPDATE

**SQL Worksheet**   Clear   Find   Actions ▾   Save   **Run ▶**

```
1  UPDATE CUSTOMERS
2  SET CUST_MIDDLENAME = 'Adelaine'
3  WHERE CUST_ID = 2139;
```

1 row(s) updated.

**SQL Worksheet**   Clear   Find   Actions ▾   Save   **Run ▶**

```
1  SELECT * FROM CUSTOMERS;
```

| CUST_ID | CUST_LASTNAME | CUST_FIRSTNAME | CUST_MIDDLENAME | CUST_PHONE | CUST_STATE | CUST_EMAIL |
|---------|---------------|----------------|-----------------|------------|------------|------------|
| 2872 | Vega | Julius | Romero | 704-862-9596 | CA | vega14@yahoo.com |
| 2950 | Robbins | Tiffany | - | 507-747-6556 | MN | trobbins@gmail.com |
| 2490 | Toni | Bradley | Ross | - | CA | trbrad@gmail.com |
| 2734 | Silva | Terrence | de | 850-693-5992 | FL | demansilva@yahoo.com |
| 2113 | Ross | Bert | - | - | - | bross17@gmail.com |
| 2139 | Smith | Minnie | Adelaine | 347-771-3027 | NY | minniemouse@yahoo.com |
| 2514 | Jensen | Paul | - | 717-753-8582 | - | pjsalt19@gmail.com |
| 2195 | Rios | Sonja | Maria | - | NM | sonjamrios@calstatela.edu |

Download CSV
8 rows selected.

## 5. ALTER

## 6. JOIN

**SQL Worksheet**                                    ⬦ Clear   ⚲ Find   Actions ⌄   🖫 Save   Run ▶

```
1  SELECT TICKET.CUST_ID, TICKET_NUM, CUST_FIRSTNAME, CUST_LASTNAME, TICKET_DEPARTTIME, TICKET_ARRIVETIME, TICKET_DEPARTLOCATION, TICKET_ARRIVETIME, SEAT_NUM
2  FROM TICKET
3  INNER JOIN CUSTOMERS
4  ON TICKET.CUST_ID = CUSTOMERS.CUST_ID;
```

| CUST_ID | TICKET_NUM | CUST_FIRSTNAME | CUST_LASTNAME | TICKET_DEPARTTIME | TICKET_ARRIVETIME | TICKET_DEPARTLOCATION | TICKET_ARRIVETIME | SEAT_NUM |
|---------|-----------|----------------|---------------|-------------------|-------------------|-----------------------|-------------------|----------|
| 2872 | 9983 | Julius | Vega | 7:00 am | 8:30 am | Los Angeles | 8:30 am | 62Z |
| 2950 | 9342 | Tiffany | Robbins | 12:00 pm | 2:15 am | New York | 2:15 am | 25W |
| 2490 | 9257 | Bradley | Toni | 2:00 pm | 6:30 pm | Austin | 6:30 pm | 8A |
| 2734 | 9945 | Terrence | Silva | 8:00 am | 1:20 pm | Seattle | 1:20 pm | 22B |
| 2113 | 9780 | Bert | Ross | 8:00 am | 10:00 am | Los Angeles | 10:00 am | 43H |
| 2139 | 9582 | Minnie | Smith | 12:00 am | 4:45 am | Oklahoma City | 4:45 am | 25L |
| 2514 | 9207 | Paul | Jensen | 5:00 pm | 2:20 am | Chicago | 2:20 am | 13Z |
| 2195 | 9100 | Sonja | Rios | 9:00 am | 2:30 pm | Maui | 2:30 pm | 35T |

Download CSV
8 rows selected.