CIT 225 Lab1 Instructions

1. Run the create_truck_user.sql script. Verify that the truck database now exists.
2. Create a connection within SQL Developer to the truck database. Call the connection "truck".
3. Run the lab1.sql script and familiarize yourself with the tables that are created in the truck database.
    a. Verify that the tables have data.
    b. Open lab1.log and verify that there are no errors.
4. Open the create_truck_tables.sql script and familiarize yourself with the tables, constraints, sequences, and indexes produced by this script.
5. Open the truck_inserts.sql script and familiarize yourself with the data being inserted.

Perform the following steps inside of the lab1.sql script:

6. Create a new table called 'maintenance'. This table will keep track of mechanical maintenance performed on the company's trucks.
    a. It should have these columns:

b.

maintenance_id	
maintenance_date	NOT NULL
type	NOT NULL
notes	
vehicle_id	NOT NULL
employee_id	NOT NULL

c. Choose appropriate data types for the columns.
d. Create Primary and Foreign Key constraints as necessary.
e. Create a Check constraint on the 'type' column allowing only two values: 'Brake Inspection' and 'LOF'
f. Create a sequence object for the maintenance table called maintenance_s1
g. Identify a natural key and create a Unique Index to enforce this natural key.

7. Add two rows to the maintenance table:
   a. Row 1
      i. maintenance_date = '19-Nov-2016'
      ii. type = 'LOF'
      iii. notes = null
      iv. vehicle_id that corresponds to vehicle name = 'Mad Max'
      v. employee_id that corresponds to employee first_name = 'Mike'

b. Row 2
    i. maintenance_date = ’24-Nov-2016’
    ii. type = ‘Brake Inspection’
    iii. notes = null
    iv. vehicle_id that corresponds to vehicle name = ‘Classy Cat’
    v. employee_id that corresponds to employee first_name = ‘Mike’

8. Create a new table called ‘incident’. This table will keep track of incidents such as accidents and speeding tickets.
    a. It should have these columns:

incident_id	
incident_date	NOT NULL
type	NOT NULL
employee_id	NOT NULL
vehicle_id	NOT NULL

    b. notes
    c. Choose appropriate date types for the columns.
    d. Create Primary and Foreign Key constraints as necessary.
    e. Create a Check constraint on the ‘type’ column allowing only three values: ‘Overweight’, ‘Speeding’, ‘Accident’

f. Create a sequence object for the incident table called incident_s1

g. Identify a natural key and create a Unique Index to enforce this natural key.

9. Add one row to the incident table:
   a. Incident_date = '28-Dec-2016'
   b. Type = 'Overweight'
   c. Employee_id that corresponds to employee first_name = 'Matt'
   d. Vehicle_id that corresponds to vehicle name = 'Classy Cat'

10. Create a new table called 'drugtest'. This table will track the results of drug tests administered to commercial drivers as required by law.
    a. It should have these columns:

drugtest_id	
drugtest_date	NOT NULL
employee_id	NOT NULL
results	NOT NULL

    b.
    c. Choose appropriate date types for the columns.
    d. Create Primary and Foreign Key constraints as necessary.
    e. Create a Check constraint on the 'results' column allowing only three values: 'Pending', 'Pass', 'Fail'
    f. Create a sequence object for the drugtest table called drugtest_s1

g. Identify a natural key and create a Unique Index to enforce this natural key.

11. Add ‘San Francisco’ with a code of ‘SFO’ to the city table.

12. Add the following distances to the milage table:

a.

city1	city2	miles
BOI	SFO	800
SLC	SFO	737
SEA	SFO	809

b. You should use .CURRVAL in these inserts to get the proper foreign key value for the city2 column.

13. Change the Check constraint on the maintenance table to include ‘Tire Inspection’ as another value option.

14. Change the Check constraint on the incident table to include ‘Sleep Log’ as another value option.

15. Add a NOT NULL constraint to the phone column in the client table.

16. Rename the fire_date column in employee table to termination_date.