Assignment 6
CS1103

Student Name: Omar Sebri
Student ID :3722350

1) The Truck table have exactly two candidate keys:

- TRUCK_NUM: Which is already a primary key in the Truck table and it's unique for every row (unique for every truck) which makes it a candidate key.
- TRUCK_SERIAL_NUM: Each truck must have its own unique serial number; therefore, we can identify trucks by their serial number which makes it a candidate key.

2) The truck table has two foreign keys: BASE_CODE and TYPE_CODE.
Each of these foreign keys has a matching primary key in Base table and Type Table and therefore the Truck table exhibits referential integrity.

3) Project the TRUCK_SERIAL_NUM from the Truck table.

4) Select the row in Truck with the TRUCK_NUM 1005.

5)

- Select from Table the rows with TYPE_CODE 2.
- Project the BASE_CODE column.

6)

- Select from Truck the row with TRUCK_NUM 1008.
- Join with the Base table to get the base for the truck 1008
- Project to get BASE_CITY_NAME and BASE_STATE columns.

7)

- Select the rows from Base with BASE_STATE Tennessee (TN).
- Join with the truck table to get the information about trucks based in Tennessee.
- Project to get TRUCK_SERIAL_NUM column

8)

- Select the rows from Truck with TRUCK_DISTANCE bigger than 50,000 miles.
- Join with Type to get types of those trucks
- Project to get description for trucks driven more than 50,000 miles.

9)

- Select the rows from Truck with TYPE_CODE 2.
- Join with Base to get bases for trucks with TYPE_CODE 2.
- Project BASE_STATE column to get states with bases containing at least one truck of type 2.

10)

- Select rows from Type with descriptions containing ‘single box’.
- Join with the truck table to get all the trucks with description containing ‘single box’.
- Join with Base table to get the bases for trucks with description containing ‘single box’
- Project the BASE_CITY_NAME column to get all the base city names containing trucks with single boxes.