**Chapter 5 – Team Project: Creating and Manipulating a Relational Database for Team Project**

Read the sample project steps for this chapter and apply the same techniques to the team project that you are developing. For the relational schema you developed at the end of Chapter 4 for the team project, carry out the following steps to implement the design using Oracle:

**Step 5.1 – Review and update the data dictionary and list of assumptions (as needed).**

For each table, write the table name and write out the names, data types, and sizes of all the data items, and identify any constraints, using the conventions of the DBMS you will use for implementation.

TABLE

**Step 5.2 – Design SQL statements to create all tables needed to implement the design. Then create the tables in the database.** Show your work by providing screenshots of executing the CREATE TABLE SQL statements in the database.

**Step 5.3 – Design SQL statements to create indexes for foreign keys and for any other columns that will be used most often for queries. Then execute the SQL statements in the database.** Show your work by providing screenshots of executing the SQL statements in the database.

**Step 5.4 – Design SQL statements to insert at least five records in each table, preserving all constraints.** **Then insert the records into the tables.** Show your work by providing screenshots of executing the INSERT SQL statements in the database.

**Step 5.5 – Design SQL statements that will process five non-routine requests for information from the database. Then execute the SQL statements in the database.** Show your work by providing screenshots of executing the SQL statements in the database along with the results.

5.5 a) Find the first name, last name ,phone, amount paid, driversLicNo and the invoice no of the new car of

SELECT c.custId c.firstName, c.lastName, c.driversLicNo, s.amountPaid, i.invoiceNO, s.newCarVIN

FROM Customer c

INNER JOIN Sale s ON s.custId = c.custId

INNER JOIN CarSale\_CustomItem i ON i.invoiceNO = s.invoiceNO

WHERE s.firstName= ‘ ’ AND s.lastName= ‘ ’;

5.5 b) Arrange the names of customers according to the price of the car they brought in descending order. The SQL queries should include customers first name, last name , customer id and the price at which they brought the car. It should also include the salesperson id, firstname and last name.

SELECT c.custId, c.firstName, c.lastName, s.salePrice,e.empId,e.firstName, e.lastName

FROM Customer c, Sale s, CarSalesPerson e

WHERE c.custId = s.custId AND s.empId= e.empId

ORDER BY s.salePrice desc;

5.5 c) Find the names of all the customers who are from ‘’ city.

SELECT firstName, lastName, phoneNumber, zipCode

FROM Customer c

WHERE upper(city) =’ ’ AND lower(city) = ‘ ’;

5.5 d) Find the number of car sale on each date.

SELECT s.saleDate, COUNT(s.invoiceNo) AS number\_of\_sales

FROM Sale s

GROUP BY s.saleDate;

5.5 e) Find the number of policies and amount finance by each company.

SELECT f.companyName, COUNT(f.finPolicyNo) AS number\_of\_Policy, SUM(f.amountFinanced)

FROM CarFinancing f

GROUP BY f.companyName;

**Step 5.6 – Design one trigger for your project. Then create the trigger in the database.** Show your work by providing screenshots of creating the trigger in the database.

**Step 5.7 – Design and execute SQL statements to demonstrate that the trigger is working as expected.** To demonstrate that the trigger is working as expected, provide a screenshot of the data before and after the trigger is executed.