CS262 Lab Assignment 6

1.) Create a Table as employee and the details are
S.No Name Designation Branch
1 Ram Manager Chennai
2 Santhosh Supervisor Madurai
3 Hari Assistant Trichy

Perform the following:

- Alter the table by adding a column Salary
- Alter the table by modifying the column Name Describe the table employee as employeeName
- Copy the table employee as emp
- Truncate the table
- Delete the Second row from the table
- Drop the table

2.) Consider the following relational schema for the Office of the Controller of Examinations Application.

Student (Rollno, Name, Dob, Gender, Doa, Bcode);

Implement a check constraint for

- Gender

Branch (Bcode, Bname, Dno);

Department (Dno, Dname);

Course (Ccode, Cname, Credits, Dno);

Branch_Course (Bcode, Ccode, Semester);

Enrolls (Rollno, Ccode, Sess, Grade);

Implement a check constraint for grade Value Set (‘S’, ‘A’, ‘B’, ‘C’, ‘D’, ‘E’, ‘U’);

Students are admitted to Branches and they are offered by Departments. A branch is offered by only one department.

Each branch has a set of Courses (Subjects). Each student must enroll during a semester. Courses are offered by Departments. A course is offered only by one department. If a student is unsuccessful in a course he/she must enroll for the course during next session. A student has successfully completed a course if the grade obtained by is from the list (A, B, C, D, and E).

A student is unsuccessful if he/she have grade ‘U’ in a course.

Primary Keys are underlined.

a.) Develop a SQL query to list details of Departments that offer more than 3 branches.

b.) Develop a SQL query to list the details of Departments that offer more than 6 courses.

c.) Develop a SQL query to list the details of courses that are common for more than 3 branches.

d.) Develop a SQL query to list students who got ‘S’ in more than 2 courses during single enrollment.

e.) Create a view that will keep track of the roll number, name and number of courses, a student has completed successfully.

3.) Consider the following relations for an Order Processing Database application in a Company.

Customer (**Customerno varchar2 (5), Cname varchar2 (50)**);

Implement check constraints to check Customerno starts with **‘C’**.

Cust_Order (**Orderno varchar2(5), Odate Date,** Customerno **references Customer, Ord_amt number(8)**);

Implement check constraints to check Orderno starts with ‘**O**’.

Ord_amt is derived attribute (default value is 0);

Item (**Itemno varchar2 (5), Item_name varchar2 (30), unit_price number (5)**);

Implement check constraint to check Itemno starts with **‘I’**.

Order_item (**Orderno references Cust_order,** Itemno **references item, qty number (3)**);

a.) Develop DDL to implement above schema enforcing primary key, check constraints and foreign key constraints.

b.) Develop SQL query to list the details of customers who have placed more than 3 orders.

c.) Develop a SQL query to list details of items whose price is less than the average price of all items in each order.

d.) Develop a SQL query to list the orderno and number of items in each order.

e.) Develop a SQL query to list the details of items that are present in 25% of the orders.

f.) Develop an update statement to update the value of Ord_amt.

g.) Create a view that keeps track of detail of each customer and number of Order placed.

4.) Create the relation employee(eid integer, managerid integer) where managereid is the foreign key referencing to the employee.
Develop DDL to implement above schema enforcing primary key as eid.

Insert some data to the employee and run a delete query.

Now use **on delete cascade** and again run delete query.