King Saud University
College of Computer and Information Sciences
Department of Information System
IS 230
Introduction to Database Systems

TUTORIAL# 7

Advanced SQL Lab

Q1.Consider the following online store Database Schema:

ITEMS (Ino, Iname, quantity, price)
CUSTOMERS (Cno, Cname, street, zip, phone)
EMPLOYEES (Eno, Ename, zip, Sdate)
ZIP_CODE (zip, city)
ORDERS (Ono, Cno, Eno, ReceivedDate, ShippedDate)
ODETAILS (Ono, Ino, Qty)

1. **Add a new employee to the database with the following Info:**
   - **Employee Number: 429.**
   - **Employee Name: Huda Ahmad.**
   - **Zip Code: 77899.**
   - **Date: 11/12/2009.**

2. **Retrieve the customer info for all customers living in area with zip code "11223".**

3. **List all orders' details for all orders made by any employee.**

4. **For each Employee, list the number of orders they make for customer number "111".**

5. **For each order, list the items details for items with quantity greater than 1 item.**

Q2. Based on the following Relational Schema (Figure 1.2 in your text book), Write the appropriate SQL statement:

STUDENT

Name	Student_number	Class	Major
Smith	17	1	CS
Brown	8	2	CS

COURSE

Course_name	Course_number	Credit_hours	Department
Intro to Computer Science	CS1310	4	CS
Data Structures	CS3320	4	CS
Discrete Mathematics	MATH2410	3	MATH
Database	CS3380	3	CS

SECTION

Section_identifier	Course_number	Semester	Year	Instructor
85	MATH2410	Fall	07	King
92	CS1310	Fall	07	Anderson
102	CS3320	Spring	08	Knuth
112	MATH2410	Fall	08	Chang
119	CS1310	Fall	08	Anderson
135	CS3380	Fall	08	Stone

GRADE_REPORT

Student_number	Section_identifier	Grade
17	112	B
17	119	C
8	85	A
8	92	A
8	102	B
8	135	A

PREREQUISITE

Course_number	Prerequisite_number
CS3380	CS3320
CS3380	MATH2410
CS3320	CS1310

1. **Retrieve the names of all senior students majoring in 'COSC' (computer science).**

2. **Retrieve the names of all courses taught by professor King in 85 and 86.**

3. **For each section taught by professor King, retrieve the course number, semester, year, and number of students who took the section.**

4. **Retrieve the names and major departments of all straight A students (students who have a grade of A in all their courses).**