Assignment 01

**Submission**

***Your submission will be a single pdf file with successful SQL statement runs and outputs of first 4 questions and explanation of question 5.***

1. Display employee number, employee full name, phone extension for employees who do not report to a manager. *Sort the result based on the employee number*. (2 Marks)

Ans: A screenshot of a computer

Description automatically generated

1. Display employee number, employee full name, phone extension, and city for employees who work in NYC, Tokyo, and Paris. *Sort the result based on the city and the employee number*. (2 Marks)

Ans: A screenshot of a computer

Description automatically generated

1. Display employee number and last name along with their manager’s last name and manager number (reports to). Label the columns Emp#, Employee, Manager and Manager# respectively. [2 marks]

Ans: A screenshot of a computer

Description automatically generated

1. Display the customer numbers who have more than one order. Show the columns as “Customer number” and “How many order”. Sort the output so that the most number of orders count are shown first. [2 marks]

Ans: A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

1. Given a college system business rule: a student can enroll for many courses and a course can have many students. What is the relationship type between student and course? How many tables do you need to implement the relationship and store student and course information? Where would you store the student grades? What about the primary key of the tables? [2 marks]

Ans: A many-to-many link exists between students and courses in a collegiate system where students can sign up for several classes. Three crucial tables are utilized to control this:

Students Table: Contains information specific to each student, including Student ID (primary key), names, addresses, and personal information.

The Course ID (primary key), course titles, descriptions, and associated data are all kept in the Courses table, which is used to store information relevant to each course.

Student grades are included in a column in the enrollments table, which uses foreign keys to link students and courses (Student ID and Course ID). Data uniqueness and accuracy are ensured by this configuration.

In the Student table, Student ID is the main key; in the Course table, the primary key is Course ID; and in the Enrollments table, the primary key is a composite of Student ID and Course ID. In addition to recording grades, this design appropriately depicts student enrollments in various courses.