**Individual Project 4**

**DS160-02**

**Introduction to Data Science**

**Fall 2023**

**Writing SQL Queries (50 points)**

**Goal:** This project aims to write several different SQL queries to extract data from a database.

**Instructions:** For this project, create an .sql script titled **IP4\_XXX.sql**, where **XXX** are your initials. Also create a GitHub repository titled **IP4\_XXX** to which you can push your code. Write and execute the following queries. **Add the snippet of the output in this document and submit it with the sql script**.

The dataset contains five tables: Customer, order line, orders, part, sales rep. Note down all of the primary keys.

1. Print all rows and columns of the dataset

# showing table

show tables;

# describing

describe customer;

describe order\_line;

describe orders;

describe part;

describe sales\_rep;

# selecting all from tables

select \* from customer;

select \* from order\_line;

select \* from orders;

select \* from part;

select \* from sales\_rep;

1. All rows, last name , first name, sales rep number, city from sales rep table

# selecting from sales rep table

select last\_name, first\_name, sales\_rep\_num, city from sales\_rep;

1. Select order and customer number from orders

# selecting from orders table

select order\_num, customer\_num from orders;

1. Select only two rows from order line

select \* from order\_line

limit 2;

1. Select all of the entries from customer where sales rep num=20

select \* from customer

where sales\_rep\_num = 20;

1. Select only customer name, balance, credit limit from customer where sales rep num=20

select customer\_name, balance, credit\_limit from customer

where sales\_rep\_num = 20;

1. Select part num, num ordered, quoted price and total price where total price is (num\_ordered \* quoted\_price) where only 1 num ordered and the order number is 21617

select part\_num, num\_ordered, quoted\_price, (num\_ordered \* quoted\_price) as "total price" from order\_line

where order\_num = 21617;

1. Show all the orders from order date between '2010-10-20’ and '2010-10-22'

select \* from orders

where order\_date between "2010-10--20" and "2010-10-22";

1. List all of parts where the part description starts with ‘D’ and end with ‘er’

select \* from part

where part\_description like 'D%' and part\_description like '%er';

1. Show total balance from customer

select sum(balance) as "Total Balance"

from customer;

1. Show minimum balance from customer

select min(balance) as "minimum balance"

from customer;

1. Count number of customers in customer table

select count(customer\_num) from customer;

1. Select order number where the quote price is more than 500 but less than 1000

select order\_num from order\_line

where quoted\_price > 500 and quoted\_price < 1000;

1. Create a new table of customer name, last name, and first name from customer and sales rep table by matching up their primary key

select c.customer\_name, sr.last\_name, sr.first\_name

from customer c

join sales\_rep sr on sr.sales\_rep\_num=c.sales\_rep\_num;

**Project Submission:** Upload a link to your GitHub repository for the project in the area provided in Moodle by the deadline specified.