**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.
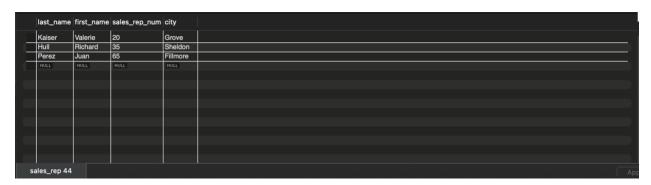
**Instructions:** For this project, create an .sql script titled **IP4_XXX.sql**, where **XXX** are your initials. Also create a GitHub repository titled **IP4_XXX** to which you can push your code. Write and execute the following queries. **Add the snippet of the output in this document and submit it with the sql script**.

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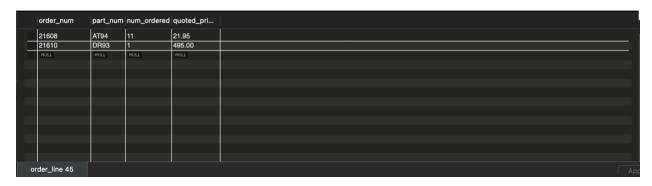
1. Print all rows and columns of the dataset

| customer_num | customer_name | street | city | state | zip | balance | credit_li... | sales_rep_num | order_num | part_num | num_ordered | quoted_pri... | order_num | orde |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 725 | Deerfield's Four Seasons | 282 Col... | Sheldon | FL | 33553 | 248.00 | 7500.00 | 35 | 21610 | DR93 | 1 | 495.00 | 21617 | 2010 |
| 725 | Deerfield's Four Seasons | 282 Col... | Sheldon | FL | 33553 | 248.00 | 7500.00 | 35 | 21610 | DR93 | 1 | 495.00 | 21617 | 2010 |
| 725 | Deerfield's Four Seasons | 282 Col... | Sheldon | FL | 33553 | 248.00 | 7500.00 | 35 | 21610 | DR93 | 1 | 495.00 | 21617 | 2010 |
| 725 | Deerfield's Four Seasons | 282 Col... | Sheldon | FL | 33553 | 248.00 | 7500.00 | 35 | 21610 | DR93 | 1 | 495.00 | 21614 | 2010 |
| 725 | Deerfield's Four Seasons | 282 Col... | Sheldon | FL | 33553 | 248.00 | 7500.00 | 35 | 21610 | DR93 | 1 | 495.00 | 21614 | 2010 |
| 725 | Deerfield's Four Seasons | 282 Col... | Sheldon | FL | 33553 | 248.00 | 7500.00 | 35 | 21610 | DR93 | 1 | 495.00 | 21614 | 2010 |
| 725 | Deerfield's Four Seasons | 282 Col... | Sheldon | FL | 33553 | 248.00 | 7500.00 | 35 | 21610 | DR93 | 1 | 495.00 | 21613 | 2010 |
| 725 | Deerfield's Four Seasons | 282 Col... | Sheldon | FL | 33553 | 248.00 | 7500.00 | 35 | 21610 | DR93 | 1 | 495.00 | 21613 | 2010 |
| 725 | Deerfield's Four Seasons | 282 Col... | Sheldon | FL | 33553 | 248.00 | 7500.00 | 35 | 21610 | DR93 | 1 | 495.00 | 21613 | 2010 |
| 725 | Deerfield's Four Seasons | 282 Col... | Sheldon | FL | 33553 | 248.00 | 7500.00 | 35 | 21610 | DR93 | 1 | 495.00 | 21610 | 2010 |
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| 725 | Deerfield's Four Seasons | 282 Col... | Sheldon | FL | 33553 | 248.00 | 7500.00 | 35 | 21610 | DR93 | 1 | 495.00 | 21610 | 2010 |
| 725 | Deerfield's Four Seasons | 282 Col... | Sheldon | FL | 33553 | 248.00 | 7500.00 | 35 | 21610 | DR93 | 1 | 495.00 | 21608 | 2010 |
| 725 | Deerfield's Four Seasons | 282 Col... | Sheldon | FL | 33553 | 248.00 | 7500.00 | 35 | 21610 | DR93 | 1 | 495.00 | 21608 | 2010 |

Result 43

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

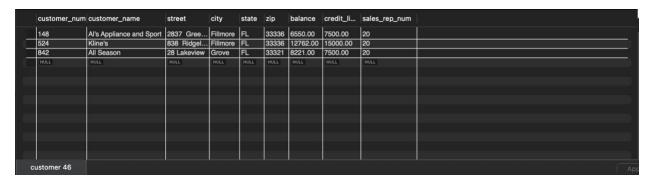| last_name | first_name | sales_rep_num | city |
|---|---|---|---|
| Kaiser | Valerie | 20 | Grove |
| Hull | Richard | 35 | Sheldon |
| Perez | Juan | 65 | Fillmore |
| NULL | NULL | NULL | NULL |

sales_rep 44

3. Select order and customer number from orders

| order_num | customer_num |
|---|---|
| 21608 | 148 |
| 21610 | 356 |
| 21613 | 408 |
| 21614 | 282 |
| 21617 | 608 |
| 21619 | 148 |
| 21623 | 608 |
| NULL | NULL |

orders 42

4. Select only two rows from order line

| order_num | part_num | num_ordered | quoted_pri... |
|---|---|---|---|
| 21608 | AT94 | 11 | 21.95 |
| 21610 | DR93 | 1 | 495.00 |
| NULL | NULL | NULL | NULL |

order_line 45

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

| customer_num | customer_name | street | city | state | zip | balance | credit_li... | sales_rep_num |
|---|---|---|---|---|---|---|---|---|
| 148 | Al's Appliance and Sport | 2837 Gree... | Fillmore | FL | 33336 | 6550.00 | 7500.00 | 20 |
| 524 | Kline's | 838 Ridgel... | Fillmore | FL | 33336 | 12762.00 | 15000.00 | 20 |
| 842 | All Season | 28 Lakeview | Grove | FL | 33321 | 8221.00 | 7500.00 | 20 |
| NULL | NULL | NULL | NULL | NULL | NULL | NULL | NULL | NULL |

customer 46

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

| customer_name | balance | credit_li... |
|---|---|---|
| Al's Appliance and Sport | 6550.00 | 7500.00 |
| Kline's | 12762.00 | 15000.00 |
| All Season | 8221.00 | 7500.00 |

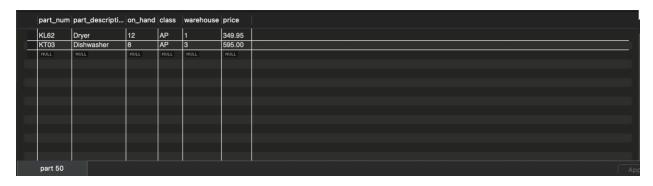customer 47

7. Select part num, num ordered, quoted price and <span style="color:red">total price</span> where total price is (num_ordered * quoted_price) where only 1 num ordered and the order number is 21617

| part_num | num_ordered | quoted_pri... | Total Price |
|----------|-------------|---------------|-------------|
| BV06 | 2 | 794.95 | 1589.90 |

Result 48

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

| order_num | order_date | customer_num |
|-----------|------------|--------------|
| 21608 | 2010-10-20 00:00:00 | 148 |
| 21610 | 2010-10-20 00:00:00 | 356 |
| 21613 | 2010-10-21 00:00:00 | 408 |
| 21614 | 2010-10-21 00:00:00 | 282 |
| NULL | NULL | NULL |

orders 49

9. List all of parts where the part description starts with 'D' and end with 'er'

| part_num | part_descripti... | on_hand | class | warehouse | price |
|----------|-------------------|---------|-------|-----------|-------|
| KL62 | Dryer | 12 | AP | 1 | 349.95 |
| KT03 | Dishwasher | 8 | AP | 3 | 595.00 |
| NULL | NULL | NULL | NULL | NULL | NULL |

part 50

10. Show total balance from customer

| sum(balance) |
| --- |
| 47651.75 |

Result 51

11. Show minimum balance from customer

| min(balance) |
| --- |
| 248.00 |

Result 52

12. Count number of customers in customer table

| count(*) |
| --- |
| 10 |

Result 53

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

| order_num | quoted_price |
| --- | --- |
| 21614 | 595.00 |
| 21617 | 794.95 |

order_line 54

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

| customer_name | last_name | first_name |
|---|---|---|
| Al's Appliance and Sport | Kaiser | Valerie |
| Brookings Direct | Hull | Richard |
| Ferguson's | Perez | Juan |
| The Everything Shop | Hull | Richard |
| Bargains Galore | Perez | Juan |
| Kline's | Kaiser | Valerie |
| Johnson's Department Store | Perez | Juan |
| Lee's Sport and Appliance | Hull | Richard |
| Deerfield's Four Seasons | Hull | Richard |
| All Season | Kaiser | Valerie |

Result 55                                                                 ℹ️ Re

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