Individual Project 4
DS160-02
Introduction to Data Science
Fall 2023

Writing SQL Queries (50 points)

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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

   select * from customer, order_line, orders, part, sales_rep;

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

customer_num	customer_name	street	city	state	zip	balance	credit_limit	sales_rep_num	order_num	part_num	num_or
725	Deerfield's Four Seasons	282 Col...	Sheldon	FL	33553	248.00	7500.00	35	21610	DR93	1
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2. All rows, last name , first name, sales rep number, city from sales rep table

select last_name, first_name, sales_rep_num, city from sales_rep;

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

3. Select order and customer number from orders
   select order_num, customer_num from orders;

Result Grid | Filter Rows:

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

4. Select only two rows from order line

Select only two rows from order line

```
select * from order_line
limit 2;
```

Result Grid | Filter Rows: | Edit:

order_num	part_num	num_ordered	quoted_price
21608	AT94	11	21.95
21610	DR93	1	495.00
NULL	NULL	NULL	NULL

5. Select all of the entries from customer where sales rep num=20
   select * from customer where sales_rep_num=20;

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

customer_num	customer_name	street	city	state	zip	balance	credit_limit	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

6. 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;
```

Result Grid | Filter Rows:

customer_name	balance	credit_limit
Al's Appliance and Sport	6550.00	7500.00
Kline's	12762.00	15000.00
All Season	8221.00	7500.00

7. 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 p.part_num, o.num_ordered, o.quoted_price, (num_ordered*quoted_price) as "Total Price"
from order_line o
join part p on p.part_num=o.part_num
where order_num=21617
limit 1;
```

Result Grid | Filter Rows: | Export:

part_num	num_ordered	quoted_price	Total Price
BV06	2	794.95	1589.90

8. 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';
```

Result Grid | Filter Rows: | Edit:

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

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

```
select * from part where part_description like 'D%er';
```

Result Grid | Filter Rows: | Edit:

part_num	part_description	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

10. Show total balance from customer

```
select sum(balance) from customer;
```

Result Grid | Filter

sum(balance)
47651.75

11. Show minimum balance from customer

```
select min(balance) from customer;
```

Result Grid | Filter Rows:

min(balance)
248.00

12. Count number of customers in customer table

```
select count (*) from customer;
```

Result Grid

count(*)
10

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

```
select order_num, quoted_price from order_line
where quoted_price>500 and quoted_price<1000;
```

Result Grid | Filter Rows:

order_num	quoted_price
21614	595.00
21617	794.95

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

```
select c.customer_name, sr.last_name,sr.first_name from sales_rep sr
join customer c on sr.sales_rep_num=c.sales_rep_num;
```

Result Grid | Filter Rows: | Export:

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

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