

COS 455 Quiz Three 2021 - COS455QuizThree2021.pdf

For each problem:

- i. State the SQL query you used to solve the problem.
- ii. Write the rows that you obtained (I want actual values for each row obtained).

1. Select the average quantity on hand of all the parts whose name had the word 'Time' in it.

```
mysql> select avg(parts.qoh) from parts
      -> where parts.pname like '%Time%' ;
```

```
+-----+
| avg(parts.qoh) |
+-----+
|      151.5000 |
+-----+
1 row in set (0.00 sec)
```

2. Select all the employees names, customers, names and order numbers where the orders contained 'Dr.' or 'Beauty' in the parts name.

```
mysql> select ename, cname, orders.ono
-> from employees inner join orders inner join customers inner join
odetails inner join parts
-> on employees.eno = orders.eno and customers.cno = orders.cno and
orders.ono = odetails.ono and odetails.pno = parts.pno
-> where parts.pname like '%Dr.%' or parts.pname like '%Beauty%';
```

```
+-----+-----+-----+
| ename | cname  | ono  |
+-----+-----+-----+
| Jones | Charles | 1021 |
| Smith | Bertram | 1022 |
| Jones | Barbara | 1023 |
+-----+-----+-----+
3 rows in set (0.00 sec)
```

3. Select employees names, hiredate, and order number of those employees who took orders from customers that bought 'Sleeping Beauty'

```
mysql> select ename, hdate, orders.ono
-> from employees inner join orders inner join customers inner
    join odetails inner join parts
-> on employees.eno = orders.eno and customers.cno = orders.cno
    and orders.ono = odetails.ono and odetails.pno = parts.pno
-> where parts.pname like '%Sleeping Beauty%';
```

```
+-----+-----+-----+
| ename | hdate  | ono  |
+-----+-----+-----+
| Jones | 1995-12-12 | 1021 |
| Smith | 1992-01-01 | 1022 |
+-----+-----+-----+
2 rows in set (0.00 sec)
```

4. Get the names and cities of customers along with the part number and quantity of that part for those customers who placed an order which included more than one of the same part in the order and then order the result by part number in descending order.

```
mysql> select cname, zipcodes.city, parts.pno, odetails.qty
-> from customers inner join zipcodes inner join orders inner join
   odetails inner join parts
-> on customers.zip = zipcodes.zip and customers.cno = orders.cno
   and orders.ono = odetails.ono and odetails.pno = parts.pno
-> Where odetails.qty > 1
-> order by parts.pno DESC;
```

```
+-----+-----+-----+-----+
| cname  | city   | pno    | qty   |
+-----+-----+-----+-----+
| Charles | Wichita | 10601  | 4     |
| Charles | Wichita | 10509  | 3     |
| Charles | Wichita | 10508  | 2     |
+-----+-----+-----+-----+
3 rows in set (0.01 sec)
```

5. Find the customers name, order number, zip, part number, and quantity of that part of those customers who bought at least one and less than five of a part in an order and then order the result by the quantity.

```
mysql> select cname, orders.ono, customers.zip, parts.pno, odetails.qty
-> from customers inner join orders inner join odetails inner join
parts
-> on customers.cno = orders.cno and orders.ono = odetails.ono and
odetails.pno = parts.pno
-> where odetails.qty >= 1 and odetails.qty < 5;
-> order by odetails.qty;
```

```
+-----+-----+-----+-----+-----+
| cname  | ono  | zip   | pno   | qty  |
+-----+-----+-----+-----+-----+
| Charles | 1020 | 67226 | 10506 | 1    |
| Bertram | 1022 | 67226 | 10601 | 1    |
| Charles | 1020 | 67226 | 10507 | 1    |
| Bertram | 1022 | 67226 | 10701 | 1    |
| Barbara | 1023 | 60606 | 10800 | 1    |
| Barbara | 1023 | 60606 | 10900 | 1    |
| Charles | 1020 | 67226 | 10508 | 2    |
| Charles | 1020 | 67226 | 10509 | 3    |
| Charles | 1021 | 67226 | 10601 | 4    |
+-----+-----+-----+-----+-----+
9 rows in set (0.00 sec)
```

6. Select the total number of customers that have their phone extension equal to 636 or to 689. (The phone extension is the three digits after their area code.)

```
mysql> select count(cno)
      -> from customers
      -> where substring(phone,5,3) = 636 or substring(phone,5,3) = 689;
```

```
+-----+
| count(cno) |
+-----+
|          2 |
+-----+
1 row in set (0.00 sec)
```

7. Find the city and total cost of all orders grouped by city. Make sure to have a \$ on the total cost.

```
mysql> select zipcodes.city, concat('$', sum(parts.price * odetails.qty) )
       total_cost
-> from customers inner join zipcodes inner join orders inner join
       odetails inner join parts
-> on customers.zip = zipcodes.zip and customers.cno = orders.cno and
       orders.ono = odetails.ono and odetails.pno = parts.pno
-> where odetails.qty >= 1
-> group by zipcodes.city;
```

```
+-----+-----+
| city      | total_cost |
+-----+-----+
| Fort Dodge | $39.98     |
| Wichita    | $284.87    |
+-----+-----+
2 rows in set (0.00 sec)
```

8. Get the names and cities of employees who do not live in Fort Dodge but who sold to at least one customer in Fort Dodge.

Select ename, zipcodes.city

From employees inner join zipcodes inner join customers inner join orders inner join odetails

on employees.zip = zipcodes.zip and customers.zip = zipcodes.zip and customers.cno = orders.cno
and orders.ono = odetails.ono

where where details.qty >= 1 and zipcodes.city like '%Fort Dodge%';

```
+-----+-----+
| ename | city      |
+-----+-----+
| Smith | Fort Dodge |
| Smith | Fort Dodge |
+-----+-----+
2 rows in set (0.00 sec)
```