James Gallmeister
Database and Information Systems
Project 1 Answers

1. select * from offices;

```
mysql> select * from offices;
+------------+---------------+-----------------+-------------------------+------------+------------+-----------+------------+-----------+
| officeCode | city          | phone           | addressLine1            | addressLine2 | state    | country   | postalCode | territory |
+------------+---------------+-----------------+-------------------------+------------+------------+-----------+------------+-----------+
| 1          | San Francisco | +1 650 219 4782 | 100 Market Street       | Suite 300  | CA         | USA       | 94080      | NA        |
| 2          | Boston        | +1 215 837 0825 | 1550 Court Place        | Suite 102  | MA         | USA       | 02107      | NA        |
| 3          | NYC           | +1 212 555 3000 | 523 East 53rd Street    | apt. 5A    | NY         | USA       | 10022      | NA        |
| 4          | Paris         | +33 14 723 4404 | 43 Rue Jouffroy D'abbans | NULL      | NULL       | France    | 75017      | EMEA      |
| 5          | Tokyo         | +81 33 224 5000 | 4-1 Kioicho             | NULL       | Chiyoda-Ku | Japan     | 102-8578   | Japan     |
| 6          | Sydney        | +61 2 9264 2451 | 5-11 Wentworth Avenue   | Floor #2   | NULL       | Australia | NSW 2010   | APAC      |
| 7          | London        | +44 20 7877 2041 | 25 Old Broad Street    | Level 7    | NULL       | UK        | EC2N 1HN   | EMEA      |
+------------+---------------+-----------------+-------------------------+------------+------------+-----------+------------+-----------+
7 rows in set (0.00 sec)
```

2. select employeenumber, lastname, firstname, extension from employees e, offices o where o.officecode = e.officecode and o.city = 'Paris';

```
mysql> select employeenumber, lastname, firstname, extension
+----------------+-----------+-----------+-----------+
| employeenumber | lastname  | firstname | extension |
+----------------+-----------+-----------+-----------+
|           1102 | Bondur    | Gerard    | x5408     |
|           1337 | Bondur    | Loui      | x6493     |
|           1370 | Hernandez | Gerard    | x2028     |
|           1401 | Castillo  | Pamela    | x2759     |
|           1702 | Gerard    | Martin    | x2312     |
+----------------+-----------+-----------+-----------+
5 rows in set (0.00 sec)
```

3. select productcode, productname, productvendor, buyprice, msrp from products where productline = 'Classic Cars' and quantityinstock between 5000 and 7000;

```
mysql> select productcode, productname, productvendor, buyprice, msrp from products where productline = 'Clas
+-------------+--------------------------------+------------------------------+----------+--------+
| productcode | productname                    | productvendor                | buyprice | msrp   |
+-------------+--------------------------------+------------------------------+----------+--------+
| S10_4962    | 1962 LanciaA Delta 16V         | Second Gear Diecast          |   103.42 | 147.74 |
| S12_3148    | 1969 Corvair Monza             | Welly Diecast Productions    |    89.14 | 151.08 |
| S12_3990    | 1970 Plymouth Hemi Cuda        | Studio M Art Models          |    31.92 |  79.80 |
| S18_4027    | 1970 Triumph Spitfire          | Min Lin Diecast              |    91.92 | 143.62 |
| S24_3856    | 1956 Porsche 356A Coupe        | Classic Metal Creations      |    98.30 | 140.43 |
| S24_4048    | 1992 Porsche Cayenne Turbo Silver | Exoto Designs             |    69.78 | 118.28 |
| S700_2824   | 1982 Camaro Z28                | Carousel DieCast Legends     |    46.53 | 101.15 |
+-------------+--------------------------------+------------------------------+----------+--------+
7 rows in set (0.00 sec)
```

4. select productcode, productname, productvendor, buyprice, msrp from products having min(msrp);

```
mysql> select productcode, productname, productvendor, buyprice, msrp from products having min(msrp);
+-------------+------------------------------------+-----------------+----------+-------+
| productcode | productname                        | productvendor   | buyprice | msrp  |
+-------------+------------------------------------+-----------------+----------+-------+
| S10_1678    | 1969 Harley Davidson Ultimate Chopper | Min Lin Diecast |    48.81 | 95.70 |
+-------------+------------------------------------+-----------------+----------+-------+
1 row in set (0.00 sec)
```

5. select productname, max(msrp-buyprice) as profit from products;

```
mysql> select productname, max(msrp-buyprice) as profit from products;
+------------------------------------+--------+
| productname                        | profit |
+------------------------------------+--------+
| 1969 Harley Davidson Ultimate Chopper | 115.72 |
+------------------------------------+--------+
1 row in set (0.00 sec)
```

6. select country, count(country) as customercount from customers group by country having customercount >= 5 order by customercount desc;

```
mysql> select country, count(country)
+-----------+---------------+
| country   | customercount |
+-----------+---------------+
| USA       |            36 |
| Germany   |            13 |
| France    |            12 |
| Spain     |             7 |
| Australia |             5 |
| UK        |             5 |
+-----------+---------------+
6 rows in set (0.00 sec)
```

7. select o.productcode, productname, sum(quantityordered) total from products p, orderdetails o where o.productcode = p.productcode group by productcode order by total desc limit 1;

```
mysql> select o.productcode, productname, sum(quantityordere
+-------------+----------------------------+-------+
| productcode | productname                | total |
+-------------+----------------------------+-------+
| S18_3232    | 1992 Ferrari 360 Spider red | 1808 |
+-------------+----------------------------+-------+
1 row in set (0.04 sec)
```

8. select employeenumber, concat(firstname, ' ', lastname) from employees where reportsto in (select employeenumber from employees where firstname = 'Anthony' and lastname = 'Bow');

```
mysql> select employeenumber, concat(firstname, ' ', lastnam
+----------------+----------------------------------+
| employeenumber | concat(firstname, ' ', lastname) |
+----------------+----------------------------------+
|           1165 | Leslie Jennings                  |
|           1166 | Leslie Thompson                  |
|           1188 | Julie Firrelli                   |
|           1216 | Steve Patterson                  |
|           1286 | Foon Yue Tseng                   |
|           1323 | George Vanauf                    |
+----------------+----------------------------------+
6 rows in set (0.01 sec)
```

9. select employeenumber, lastname, firstname from employees where reportsto is NULL;

```
mysql> select employeenumber, lastname, firs
+----------------+----------+-----------+
| employeenumber | lastname | firstname |
+----------------+----------+-----------+
|           1002 | Murphy   | Diane     |
+----------------+----------+-----------+
1 row in set (0.00 sec)
```

10. select productname from products where productline =
    'Classic Cars' and productname like '195%';

```
[mysql> select productname from products where
+--------------------------------+
| productname                    |
+--------------------------------+
| 1952 Alpine Renault 1300       |
| 1957 Corvette Convertible      |
| 1957 Ford Thunderbird          |
| 1958 Chevy Corvette Limited Edition |
| 1952 Citroen-15CV              |
| 1956 Porsche 356A Coupe        |
+--------------------------------+
6 rows in set (0.00 sec)
```

11. select monthname(orderdate) as mth, count(ordernumber) as
    totals from orders where year(orderdate) = 2003 group by
    mth order by totals desc limit 1;

```
+----------+-------------+
| mth      | totalorders |
+----------+-------------+
| November |          30 |
+----------+-------------+
1 row in set (0.00 sec)
```

12. Select firstname, lastname from employees e left join
    customers c on e.employeenumber = c.salesrepemployeenumber
    where jobtitle = 'Sales Rep' and c.salesrepemployeenumber
    is NULL;

```
mysql> select firstname, lastn
+-----------+----------+
| firstname | lastname |
+-----------+----------+
| Tom       | King     |
| Yoshimi   | Kato     |
+-----------+----------+
2 rows in set (0.00 sec)
```

13. Select customername from customers c left join orders o on
    c.customernumber = o.customernumber where country = 'Spain'
    and o.customernumber is NULL;

```
mysql> select customername from cus
+--------------------+
| customername       |
+--------------------+
| ANG Resellers      |
| Anton Designs, Ltd. |
+--------------------+
2 rows in set (0.00 sec)
```

14. Select customername, sum(quantityordered) as tot from
    customers c, orderdetails od, orders o where
    c.customernumber = o.customnumber and o.ordernumber =
    od.ordernumber group by customername having tot > 2000;

```
mysql> select customername, sum(quantityorde
+----------------------------+------+
| customername               | tot  |
+----------------------------+------+
| Mini Gifts Distributors Ltd. | 6366 |
| Euro+ Shopping Channel     | 9327 |
+----------------------------+------+
2 rows in set (0.01 sec)
```

15. `create table TopCustomers(customernumber int not null, contactdate date not null, ordertotal decimal(9,2) not null, constraint TopCustomer_PK primary key(customernumber));`

16. `insert into topcustomers(customernumber, contactdate, ordertotal) select c.customers, curdate(), sum(priceeach*quantityordered) as tot from customers c, orders o, orderdetails od where c.customernumber = o.customernumber and o.ordernumber = od.ordernumber group by c.customernumber having tot > 150000;`

17. `select * from topcustomers order by ordertotal desc;`

```
mysql> select * from topcustomers order by orderto
+----------------+-------------+------------+
| customernumber | contactdate | ordertotal |
+----------------+-------------+------------+
|            141 | 2018-10-26  |  820689.54 |
|            124 | 2018-10-26  |  591827.34 |
|            114 | 2018-10-26  |  180585.07 |
|            151 | 2018-10-26  |  177913.95 |
|            119 | 2018-10-26  |  158573.12 |
|            148 | 2018-10-26  |  156251.03 |
|            323 | 2018-10-26  |  154622.08 |
+----------------+-------------+------------+
7 rows in set (0.00 sec)
```

18. `alter table topcustomers add column ordercount int;`

19. `update topcustomers set ordercount floor(rand()*20);`

20. `select * from topcustomers order by ordercount desc;`

```
mysql> select * from topcustomers order by ordercount desc;
+----------------+-------------+------------+------------+
| customernumber | contactdate | ordertotal | ordercount |
+----------------+-------------+------------+------------+
|            148 | 2018-10-26  |  156251.03 |         15 |
|            151 | 2018-10-26  |  177913.95 |         14 |
|            141 | 2018-10-26  |  820689.54 |         13 |
|            124 | 2018-10-26  |  591827.34 |         11 |
|            114 | 2018-10-26  |  180585.07 |          8 |
|            119 | 2018-10-26  |  158573.12 |          7 |
|            323 | 2018-10-26  |  154622.08 |          7 |
+----------------+-------------+------------+------------+
7 rows in set (0.00 sec)
```

21. `drop table topcustomers;`