

- 1.) Find the last name of employee whose job title is 'VP Sales'.

```
mysql> SELECT lastName
-> FROM employees
-> WHERE jobTitle = 'VP Sales';
+-----+
| lastName |
+-----+
| Patterson |
+-----+
1 row in set (0.00 sec)
```

- 2.) Find the names of employees (last name, first name) whose offices are in 'San Francisco'.

```
mysql> SELECT e.lastName, e.firstName
-> FROM employees e
-> JOIN offices o ON e.officeCode = o.officeCode
-> WHERE o.city = 'San Francisco';
+-----+-----+
| lastName | firstName |
+-----+-----+
| Murphy   | Diane     |
| Patterson | Mary      |
| Firrelli | Jeff      |
| Bow      | Anthony   |
| Jennings | Leslie    |
| Thompson  | Leslie    |
+-----+-----+
6 rows in set (0.00 sec)
```

- 3.) Find the names of customers (last name, first name) who purchased 'Classic Cars' according to the productLine feature of the products.

```
mysql> SELECT DISTINCT c.contactLastName, c.contactFirstName
-> FROM customers c
-> JOIN orders o ON c.customerNumber = o.customerNumber
-> JOIN orderdetails od ON o.orderNumber = od.orderNumber
-> JOIN products p ON od.productCode = p.productCode
-> WHERE p.productLine = 'Classic Cars';
```

contactLastName	contactFirstName
Bergulfsen	Jonas
Berglund	Christina
Sommer	Martín
Hashimoto	Juri
Natividad	Eric
Hernandez	Maria
Calaghan	Ben
Cervantes	Francisca
Saveley	Mary
Tamuri	Yoshi
Thompson	Steve

- 4.) Find the productName of products which has the highest MSRP price.

```
mysql> SELECT productName
-> FROM products
-> WHERE MSRP = (SELECT MAX(MSRP) FROM products);
```

productName
1952 Alpine Renault 1300

1 row in set (0.00 sec)

- 5.) Find the last names of the customers who have made 5 or more payments.

```
mysql> SELECT DISTINCT c.contactLastName
-> FROM customers c
-> JOIN payments p ON c.customerNumber = p.customerNumber
-> GROUP BY c.contactLastName
-> HAVING COUNT(*) >= 5;
```

contactLastName
King
Nelson
Murphy
Freyre
Young
Frick
Taylor
Hernandez
Brown

9 rows in set (0.01 sec)

6.) Find the most popular productLine (which means that it was purchased the most (maximum number of orders)).

```
mysql> SELECT p.productLine, COUNT(o.orderNumber) as num_of_orders
-> FROM products p
-> JOIN orderdetails od ON p.productCode = od.productCode
-> JOIN orders o ON od.orderNumber = o.orderNumber
-> GROUP BY p.productLine
-> ORDER BY num_of_orders DESC
-> LIMIT 1;

+-----+-----+
| productLine | num_of_orders |
+-----+-----+
| Classic Cars |          1010 |
+-----+-----+
1 row in set (0.01 sec)
```

A screenshot because I wasn't sure if we had to do it in terminal or MySQL Workbench so I did both:

The screenshot displays two environments used for executing SQL queries: MySQL Workbench and a terminal window.

**MySQL Workbench Interface:**

- Query Editor:** Shows the following SQL query:

```
SELECT p.productLine, COUNT(o.orderNumber) as num_of_orders
FROM products p
JOIN orderdetails od ON p.productCode = od.productCode
JOIN orders o ON od.orderNumber = o.orderNumber
GROUP BY p.productLine
ORDER BY num_of_orders DESC
LIMIT 1;
```
- Result Grid:** Displays the query results in a table with two columns: `productLine` and `num_of_order...`. The first row shows `Classic Cars` with a value of `1010`.
- Schema:** The selected schema is `sys`.
- Action Output:** A log of executed queries and their results, including the query shown in the editor.

**Terminal Window:**

- Terminal 1 (jennyjacob -- mysql -u root -p -- 80x24):** Displays a list of product names and their corresponding order counts, sorted by order count in descending order. The first row is `Benitez` with a count of `1010`. The list continues with `Citeaux`, `Salazar`, `Kentary`, `King`, `Klaeboe`, `Schmitt`, `Young`, `Cartrain`, `Roel`, `Frick`, `Taylor`, `Ricotti`, `Clenahan`, `Choi`, `Lewis`, `Rancé`, `Snowden`, `Rovelli`, `Violeta`, `Frédérique`, `Rosa`, `Mory`, `Jean`, `Jan`, `Carine`, `Julie`, `Pascale`, `José Pedro`, `Steve`, `Sue`, `Franco`, `Sean`, `Yu`, `Dan`, `Martine`, `Tony`, and `Giovanni`. The output ends with `94 rows in set (0.01 sec)`.
- Terminal 2:** Shows the command `mysql> SELECT productLine` followed by `-> FROM products`.