Assignment Solution

Use Classic Models Database

1. How many products in each product line?

Ans

mysql> select productLine,count(\*) from products group by productLine;

+------------------+----------+

| productLine | count(\*) |

+------------------+----------+

| Classic Cars | 38 |

| Motorcycles | 13 |

| Planes | 12 |

| Ships | 9 |

| Trains | 3 |

| Trucks and Buses | 11 |

| Vintage Cars | 24 |

+------------------+----------+

2. What is the minimum payment received?

Ans

mysql> select min(amount) from payments;

+-------------+

| min(amount) |

+-------------+

| 615.45 |

3. List all payments greater than twice the average payment.

Ans.

mysql> select amount from payments where amount >(select avg(amount) from payments);

+-----------+

| amount |

+-----------+

| 32641.98 |

| 33347.88 |

| 45864.03 |

4. What is the average percentage markup of the MSRP on buyPrice?

Ans.

mysql> select productName,avg(buyPrice/MSRP)\*100 from products group by productName limit 5;

+---------------------------------------+------------------------+

| productName | avg(buyPrice/MSRP)\*100 |

+---------------------------------------+------------------------+

| 1969 Harley Davidson Ultimate Chopper | 51.0031000000 |

| 1952 Alpine Renault 1300 | 46.0009000000 |

| 1996 Moto Guzzi 1100i | 58.0040000000 |

5. How many distinct products does ClassicModels sell?

Ans

mysql> select count(distinct(productName)) as distinct\_products from produc

ts;

+-------------------+

| distinct\_products |

+-------------------+

| 110 |

+-------------------+

6. Report the name and city of customers who don't have sales representatives?

Ans

mysql> select customerName,city from customers where salesRepEmployeeNumber is NULL;

+--------------------------------+------------------+

| customerName | city |

+--------------------------------+------------------+

| Havel & Zbyszek Co | Warszawa |

| Porto Imports Co. | Lisboa |

| Asian Shopping Network, Co | Singapore |

7. What are the names of executives with VP or Manager in their title? Use the CONCAT function to combine the employee's first name and last name into a single field for reporting.

Ans

mysql> select concat(firstName,' ',lastName) as Name from employees where jobTitle like '%Manager%' or jobTitle like '%VP%';

+-------------------+

| Name |

+-------------------+

| Mary Patterson |

| Jeff Firrelli |

| William Patterson |

| Gerard Bondur |

| Anthony Bow |

+-------------------+

8. Which orders have a value greater than $5,000?

Ans

mysql> select orderNumber,(quantityOrdered\*priceEach) as Cost from orderdetails where(quantityOrdered\*priceEach)>5000;

+-------------+----------+

| orderNumber | Cost |

+-------------+----------+

| 10103 | 5571.80 |

| 10103 | 5026.14 |

| 10105 | 6392.00 |

| 10105 | 8434.52 |

9. List the value of 'On Hold' orders.

Ans

mysql> select orderNumber,status,comments from orders where status='On Hold';

+-------------+---------+--------------------------------------------------------------------------------------------------------------------------+

| orderNumber | status | comments |

+-------------+---------+--------------------------------------------------------------------------------------------------------------------------+

| 10334 | On Hold | The outstaniding balance for this customer exceeds their credit limit. Order will be shipped when a payment is received. |

| 10401 | On Hold | Customer credit limit exceeded. Will ship when a payment is received. |

| 10407 | On Hold | Customer credit limit exceeded. Will ship when a payment is received. |

| 10414 | On Hold | Customer credit limit exceeded. Will ship when a payment is received. |

+-------------+---------+--------------------------------------------------------------------------------------------------------------------------+

10. Report the number of orders 'On Hold' for each customer.

Ans.

mysql> select a.customerName,count(b.orderNumber) no\_of\_orders,b.status from orders b join orderdetails c on b.orderNumber=c.orderNumber join customers a on a.customerNumber=b.customerNumber group by a.customerNumber,b.status having status='On Hold';

+---------------------------+--------------+---------+

| customerName | no\_of\_orders | status |

+---------------------------+--------------+---------+

| Volvo Model Replicas, Co | 6 | On Hold |

| Tekni Collectables Inc. | 12 | On Hold |

| The Sharp Gifts Warehouse | 12 | On Hold |

| Gifts4AllAges.com | 14 | On Hold |

+---------------------------+--------------+---------+

4 rows in set (0.54 sec)

11. List products sold by order date.

Ans.

mysql> select a.productName,b.orderDate from products a join orders b limit 3;

+---------------------------+------------+

| productName | orderDate |

+---------------------------+------------+

| Pont Yacht | 2003-01-06 |

| Boeing X-32A JSF | 2003-01-06 |

| American Airlines: MD-11S | 2003-01-06 |

+---------------------------+------------+

12. List the order dates in descending order for orders for the 1940 Ford Pickup Truck.

Ans

mysql> select a.productName,b.orderDate from products a join orders b where a.productName='1940 Ford Pickup Truck' order by b.orderDate desc;

+------------------------+------------+

| productName | orderDate |

+------------------------+------------+

| 1940 Ford Pickup Truck | 2005-05-31 |

| 1940 Ford Pickup Truck | 2005-05-31 |

| 1940 Ford Pickup Truck | 2005-05-30 |

| 1940 Ford Pickup Truck | 2005-05-30 |

| 1940 Ford Pickup Truck | 2005-05-29 |

| 1940 Ford Pickup Truck | 2005-05-29 |

| 1940 Ford Pickup Truck | 2005-05-17 |

| 1940 Ford Pickup Truck | 2005-05-16 |

| 1940 Ford Pickup Truck | 2005-05-13 |

| 1940 Ford Pickup Truck | 2005-05-10 |

| 1940 Ford Pickup Truck | 2005-05-09 |

13. List the names of customers and their corresponding order number where a particular order from that customer has a value greater than $25,000?

Ans.

mysql> select a.customerName,b.orderNumber,c.amount from customers a join orders b on a.customerNumber=b.customerNumber join payments c on c.customerNumber=b.customerNumber where c.amount >25000 order by c.amount asc limit 5;

+----------------------+-------------+----------+

| customerName | orderNumber | amount |

+----------------------+-------------+----------+

| Auto Canal+ Petit | 10211 | 25080.96 |

| Auto Canal+ Petit | 10252 | 25080.96 |

| Auto Canal+ Petit | 10402 | 25080.96 |

14. Are there any products that appear on all orders?

Ans.select productCode from orderdetails where orderNumber = ALL(select orderNumber from orders);

Empty Set

15. List the names of products sold at less than 80% of the MSRP

Ans

mysql> select productName, buyPrice, MSRP from products where buyPrice

< (MSRP \*.8);

+---------------------------------------------+----------+--------+

| productName | buyPrice | MSRP |

+---------------------------------------------+----------+--------+

| 1969 Harley Davidson Ultimate Chopper | 48.81 | 95.70 |

| 1952 Alpine Renault 1300 | 98.58 | 214.30 |

| 1996 Moto Guzzi 1100i | 68.99 | 118.94 |

16.Compute the commission for each sales representative, assuming the commission is 5% of the value of an order. Sort by employee last name and first name.

Ans

mysql> SELECT a.employeeNumber, a.firstName, a.lastName, CAST(.05 \* SUM(priceEach \* quantityOrdered) AS DECIMAL(8, 2)) AS Commission FROM employees a, customers b, orders c, orderdetails d WHERE a.employeeNumber = b.salesRepEmployeeNumber AND b.customerNumber = c.customerNumber AND c.orderNumber = d.orderNumber

GROUP BY employeeNumber, lastName, firstName ORDER BY lastName, firstName ASC;

+----------------+-----------+-----------+------------+

| employeeNumber | firstName | lastName | Commission |

+----------------+-----------+-----------+------------+

| 1337 | Loui | Bondur | 28474.29 |

| 1501 | Larry | Bott | 36604.84 |

| 1401 | Pamela | Castillo | 43411.03 |

| 1188 | Julie | Firrelli | 19333.16 |

| 1611 | Andy | Fixter | 28129.13 |

17. What is the difference in days between the most recent and oldest order date in the Orders file?

Ans

mysql> SELECT DATEDIFF(MAX(orderDate),min(orderDate)) AS Date\_Difference FROM

or

+-----------------+

| Date\_Difference |

+-----------------+

| 876 |

+-----------------+

18. Compute the ratio of payments for each customer for 2003 versus 2004.

Ans.

mysql> select c.customerName,sum(a.amount/b.amount) as ratio from payments a join payments b on a.customerNumber=b.customerNumber join customers c on c.customerNumber=b.customerNumber where a.paymentDate in(select paymentDate from payments

where year(paymentDate)=2003) and b.paymentDate in(select paymentDate from payments where year(paymentDate)=2004) group by c.CustomerName order by ratio desc;

+--------------------------------+-----------+

| customerName | ratio |

+--------------------------------+-----------+

| Dragon Souveniers, Ltd. | 57.477928 |

| Technics Stores Inc. | 36.733606 |

| Euro+ Shopping Channel | 32.164520 |

| La Corne D'abondance, Co. | 17.677157 |

| Danish Wholesale Imports | 15.991042 |

| Iberia Gift Imports, Corp. | 13.674198 |

| Mini Gifts Distributors Ltd. | 12.407707 |

19. Find the products sold in 2003 but not 2004.

Ans

mysql> select a.productName,b.shippedDate from products a join orders b where year(b.shippedDate)=2003 and year(b.shippedDate)!=2004;

+---------------------------------------------+-------------+

| productName | shippedDate |

+---------------------------------------------+-------------+

| Pont Yacht | 2003-01-10 |

| Boeing X-32A JSF | 2003-01-10 |

| American Airlines: MD-11S | 2003-01-10 |

| The Queen Mary | 2003-01-10 |

| The Titanic | 2003-01-10 |

20. Find the customers without payments in 2003.

Ans

mysql> select a.customerName,year(b.paymentDate) from customers a join payments b on a.customerNumber=b.customerNumber where year(b.paymentDate)!=2003;

+------------------------------------+---------------------+

| customerName | year(b.paymentDate) |

+------------------------------------+---------------------+

| Atelier graphique | 2004 |

| Atelier graphique | 2004 |

| Signal Gift Stores | 2004 |

| Signal Gift Stores | 2004 |

| Australian Collectors, Co. | 2004 |