

## Name: Daniel Thommana SQL ASSGN 6

### 1. How many products in each product line?

```
mysql> select PL.productLine, count(P.productCode) No_Of_Products from ProductLines PL join Products P on PL.productLine=P.productLine group by productLine;
```

productLine	No_Of_Products
Classic Cars	38
Motorcycles	13
Planes	12
Ships	9
Trains	3
Trucks and Buses	11
Vintage Cars	24

7 rows in set (0.00 sec)

### 2. What is the minimum payment received?

```
mysql> select min(amount) from payments;
```

min(amount)
615.45

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

```
mysql> select amount from payments where amount > 2*(select avg(amount) from payments);
```

amount
82261.22
101244.59
85410.87
83598.04
111654.40
116208.40
65071.26
120166.58
105743.00
85024.46
80375.24
85559.12
75020.13

13 rows in set (0.00 sec)

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

```
mysql> select round(avg((MSRP-buyPrice)/buyPrice)*100,2) as Average from Products;
```

Average
88.70

1 row in set (0.00 sec)

### 5. How many distinct products does ClassicModels sell?

```
1 row in set (0.00 sec)

mysql> select count(distinct(productCode)) as No_Of_Distinct_Products from Products;
+-----+
| No_Of_Distinct_Products |
+-----+
| 110 |
+-----+
1 row in set (0.00 sec)
```

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

```
mysql> select customerName, city from Customers where salesRepEmployeeNumber is null order by city;
+-----+-----+
| customerName | city |
+-----+-----+
| Warburg Exchange | Aachen |
| Schuyler Imports | Amsterdam |
| Der Hund Imports | Berlin |
| Cramer Spezialitäten, Ltd | Brandenburg |
| Asian Treasures, Inc. | Cork |
| Natürlich Autos | Cunewalde |
| Messner Shopping Network | Frankfurt |
| BG&E Collectables | Fribourg |
| SAR Distributors, Co | Hatfield |
| Raanan Stores, Inc | Herzlia |
| Feuer Online Stores, Inc | Leipzig |
| Porto Imports Co. | Lisboa |
| Lisboa Souveniers, Inc | Lisboa |
| ANG Resellers | Madrid |
| Anton Designs, Ltd. | Madrid |
| Mit Vergnügen & Co. | Mannheim |
| Franken Gifts, Co | München |
| Kommission Auto | Münster |
| Kremlin Collectables, Co. | Saint Petersburg |
| Asian Shopping Network, Co | Singapore |
| Stuttgart Collectable Exchange | Stuttgart |
| Havel & Zbyszek Co | Warszawa |
+-----+-----+
22 rows in set (0.00 sec)
```

### 7. What are the names of executives with VP or Manager in their title?

```
mysql> select concat (firstName, ' ', lastName) as Name, jobTitle from Employees where jobTitle like '%VP%' or jobTitle like '%Manager%';
+-----+-----+
| Name | jobTitle |
+-----+-----+
| Mary Patterson | VP Sales |
| Jeff Firrelli | VP Marketing |
| William Patterson | Sales Manager (APAC) |
| Gerard Bondur | Sale Manager (EMEA) |
| Anthony Bow | Sales Manager (NA) |
+-----+-----+
5 rows in set (0.00 sec)
```

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

```
mysql> select orderNumber, sum(quantityOrdered * priceEach) as Total_Value from OrderDetails group by orderNumber having sum(quantityOrdered * priceEach) >5000;
```

orderNumber	Total_Value
10100	10223.83
10101	10549.01
10102	5494.78
10103	50218.95
10104	40206.20
10105	53959.21
10106	52151.81
10107	22292.62
10108	51001.22
10109	25833.14

10416	35362.26
10417	28574.90
10418	23627.44
10419	52420.07
10420	42251.51
10421	7639.10
10422	5849.44
10423	8597.73
10424	29310.30
10425	41623.44

303 rows in set (0.00 sec)

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

```
mysql> select O.orderNumber,sum(OD.quantityOrdered * priceEach) as total_value,O.status from Orders O join OrderDetails OD on O.orderNumber=OD.orderNumber group by orderNumber having status='On Hold';
```

orderNumber	total_value	status
10334	23014.17	On Hold
10401	43525.04	On Hold
10407	52229.55	On Hold
10414	50806.85	On Hold

4 rows in set (0.00 sec)

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

```
mysql> select C.customerName,count(O.orderNumber) No_Of_Orders, O.status from Orders O join OrderDetails OD on O.orderNumber=OD.orderNumber join Customers C on C.customerNumber=O.customerNumber group by C.customerName,O.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 (0.00 sec)

## 11. List products sold by order date.

```
mysql> select O.orderDate ,OD.productCode,P.productName from Orders O join OrderDetails OD on O.orderNumber=OD.orderNumber join Products P on P.productCode=OD.productCode order by O.orderDate limit 10;
```

orderDate	productCode	productName
2003-01-06	S18_1749	1917 Grand Touring Sedan
2003-01-06	S18_2248	1911 Ford Town Car
2003-01-06	S18_4409	1932 Alfa Romeo 8C2300 Spider Sport
2003-01-06	S24_3969	1936 Mercedes-Benz 500K Roadster
2003-01-09	S18_2325	1932 Model A Ford J-Coupe
2003-01-09	S18_2795	1928 Mercedes-Benz SSK
2003-01-09	S24_1937	1939 Chevrolet Deluxe Coupe
2003-01-09	S24_2022	1938 Cadillac V-16 Presidential Limousine
2003-01-10	S18_1342	1937 Lincoln Berline
2003-01-10	S18_1367	1936 Mercedes-Benz 500K Special Roadster

10 rows in set (0.00 sec)

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

```
mysql> select O.orderDate ,P.productName from Orders O join OrderDetails OD on O.orderNumber=OD.orderNumber join Products P on P.productCode=OD.productCode where P.productName='1940 Ford Pickup Truck'
order by O.orderDate desc;
+-----+-----+
| orderDate | productName |
+-----+-----+
| 2005-05-31 | 1940 Ford Pickup Truck |
| 2005-05-01 | 1940 Ford Pickup Truck |
| 2005-03-09 | 1940 Ford Pickup Truck |
| 2005-02-17 | 1940 Ford Pickup Truck |
| 2005-01-20 | 1940 Ford Pickup Truck |
| 2004-12-10 | 1940 Ford Pickup Truck |
| 2004-11-29 | 1940 Ford Pickup Truck |
| 2004-11-18 | 1940 Ford Pickup Truck |
| 2004-11-04 | 1940 Ford Pickup Truck |
| 2004-10-21 | 1940 Ford Pickup Truck |
| 2004-10-11 | 1940 Ford Pickup Truck |
| 2004-09-08 | 1940 Ford Pickup Truck |
| 2004-08-17 | 1940 Ford Pickup Truck |
| 2004-07-19 | 1940 Ford Pickup Truck |
| 2004-06-15 | 1940 Ford Pickup Truck |
| 2004-05-04 | 1940 Ford Pickup Truck |
| 2004-03-10 | 1940 Ford Pickup Truck |
| 2004-01-29 | 1940 Ford Pickup Truck |
| 2003-12-05 | 1940 Ford Pickup Truck |
| 2003-11-25 | 1940 Ford Pickup Truck |
| 2003-11-13 | 1940 Ford Pickup Truck |
| 2003-11-06 | 1940 Ford Pickup Truck |
| 2003-10-21 | 1940 Ford Pickup Truck |
| 2003-09-19 | 1940 Ford Pickup Truck |
| 2003-07-24 | 1940 Ford Pickup Truck |
| 2003-05-28 | 1940 Ford Pickup Truck |
| 2003-03-26 | 1940 Ford Pickup Truck |
| 2003-01-29 | 1940 Ford Pickup Truck |
+-----+-----+
28 rows in set (0.00 sec)
```

## 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?

```
mysql> select C.customerName, O.orderNumber,sum(quantityOrdered * priceEach) Total_Value from Customers C join Orders O on C.customerNumber=O.customerNumber join OrderDetails OD on O.orderNumber=OD.orderNumber
group by O.orderNumber having sum(quantityOrdered*priceEach) > 25000 ;
+-----+-----+-----+
| customerName | orderNumber | Total_Value |
+-----+-----+-----+
| Baane Mini Imports | 10103 | 50218.05 |
| Euro+ Shopping Channel | 10104 | 40206.20 |
| Danish Wholesale Imports | 10105 | 53959.21 |
| Rovelli Gifts | 10106 | 52151.81 |
| Cruz & Sons Co. | 10108 | 51001.22 |
| Motor Hint Distributors Inc. | 10109 | 23835.14 |
| AV Stores, Co. | 10110 | 48425.69 |
| La Corne D'abondance, Co. | 10114 | 33383.14 |
| Dragon Souvenirs, Ltd. | 10117 | 44380.15 |
| Salzburg Collectables | 10119 | 35826.33 |
+-----+-----+-----+
| Québec Home Shopping Network | 10411 | 29070.38 |
| Euro+ Shopping Channel | 10412 | 46895.48 |
| Gift Depot Inc. | 10413 | 28500.78 |
| Gifts4AllAges.com | 10414 | 50806.85 |
| L'ordine Souvenirs | 10416 | 35362.26 |
| Euro+ Shopping Channel | 10417 | 28574.90 |
| Salzburg Collectables | 10419 | 52420.07 |
| Souvenirs And Things Co. | 10420 | 42251.51 |
| Euro+ Shopping Channel | 10424 | 29310.30 |
| La Rochelle Gifts | 10425 | 41623.44 |
+-----+-----+-----+
```

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

```
mysql> select productCode from OrderDetails where orderNumber =ALL(select orderNumber from Orders);
Empty set (0.02 sec)
```

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

```
mysql> select P.productName,P.productCode,OD.priceEach,P.MSRP from Products P join OrderDetails OD on P.productCode=OD.productCode where priceEach < (MSRP * .8);
```

productName	productCode	priceEach	MSRP
1996 Moto Guzzi 1100i	S10_2016	95.15	118.94
1993 Mazda RX-7	S18_1129	113.23	141.54
1937 Lincoln Berline	S18_1342	82.19	102.74
1965 Aston Martin DB5	S18_1589	99.55	124.44
1965 Aston Martin DB5	S18_1589	99.55	124.44
1980s Black Hawk Helicopter	S18_1662	126.15	157.69
1980s Black Hawk Helicopter	S18_1662	126.15	157.69
1911 Ford Town Car	S18_2248	48.43	60.54
P-51-D Mustang	S18_2581	67.58	84.48
P-51-D Mustang	S18_2581	67.58	84.48
1992 Ferrari 360 Spider red	S18_3232	135.47	169.34
1992 Ferrari 360 Spider red	S18_3232	135.47	169.34
1992 Ferrari 360 Spider red	S18_3232	135.47	169.34
1992 Ferrari 360 Spider red	S18_3232	135.47	169.34
Collectable Wooden Train	S18_3259	80.67	100.84
1976 Ford Gran Torino	S18_3482	117.59	146.99
1932 Alfa Romeo 8C2300 Spider Sport	S18_4409	73.62	92.03
1940s Ford truck	S18_4600	96.86	121.08
1940s Ford truck	S18_4600	96.86	121.08
1940s Ford truck	S18_4600	96.86	121.08
1939 Chevrolet Deluxe Coupe	S24_1937	26.55	33.19
1939 Chevrolet Deluxe Coupe	S24_1937	26.55	33.19
18th century schooner	S24_2011	98.31	122.89
1962 Volkswagen Microbus	S24_2300	102.23	127.79
1962 Volkswagen Microbus	S24_2300	102.23	127.79
1952 Citroen-15CV	S24_2887	93.95	117.44
1952 Citroen-15CV	S24_2887	93.95	117.44
1971 Alpine Renault 1600s	S24_3371	48.98	61.23
1956 Porsche 356A Coupe	S24_3856	112.34	140.43
1956 Porsche 356A Coupe	S24_3856	112.34	140.43
1956 Porsche 356A Coupe	S24_3856	112.34	140.43
1956 Porsche 356A Coupe	S24_3856	112.34	140.43
Corsair F4U ( Bird Cage)	S24_3949	54.59	68.24
1936 Mercedes Benz 500k Roadster	S24_3969	32.82	41.03
1936 Mercedes Benz 500k Roadster	S24_3969	32.82	41.03
1936 Mercedes Benz 500k Roadster	S24_3969	32.82	41.03
1997 BMW F650 ST	S32_1374	79.91	99.89
1950's Chicago Surface Lines Streetcar	S32_3207	49.71	62.14
1996 Peterbilt 379 Stake Bed with Outrigger	S32_3522	51.71	64.64
1930 Buick Marquette Phaeton	S50_1341	34.91	43.64
1962 City of Detroit Streetcar	S50_1514	46.86	58.58
American Airlines: B767-300	S700_1691	73.07	91.34
American Airlines: B767-300	S700_1691	73.07	91.34
The USS Constitution Ship	S700_2610	57.82	72.28
American Airlines: MD-11S	S700_4002	59.22	74.03

## 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.

```
mysql> select E.employeeNumber, E.firstName, E.lastName, round(.05 * sum(priceEach * quantityOrdered),2) as Commission from Employees E, Customers C, Orders O, OrderDetails OD
where E.employeeNumber = C.salesRepEmployeeNumber AND C.customerNumber = O.customerNumber AND O.orderNumber = OD.orderNumber Group by employeeNumber, lastName, firstName Order by lastName 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
1702	Martin	Gerard	19373.87
1370	Gerard	Hernandez	62928.89
1165	Leslie	Jennings	54076.53
1504	Barry	Jones	35242.70
1612	Peter	Marsh	29229.69
1621	Mami	Nishi	22855.50
1216	Steve	Patterson	25293.77
1166	Leslie	Thompson	17376.65
1286	Foon Yue	Tseng	24410.63
1323	George	Vanauf	33468.85

15 rows in set (0.01 sec)

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

```
mysql> Select datediff(max(orderDate),min(orderDate)) as Date_Difference from Orders;
```

Date_Difference
876

1 row in set (0.00 sec)

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

```
mysql> select customerName,sum(if(year=2004,totalAmount,0))/sum(if(year=2003,totalAmount,0)) as ratio from (select customerName,year(paymentDate) as year,sum(amount) as totalAmount
from Customers C join Payments P on C.customerNumber=P.customerNumber group by C.customerNumber,year having year=2003 or year=2004) as customer_payment group by customerName order by customerName;
+-----+-----+
| customerName | ratio |
+-----+-----+
| Alpha Cognac | 0.000000 |
| Amica Models & Co. | NULL |
| Anna's Decorations, Ltd | 0.000000 |
| Atelier graphique | 0.591376 |
| Australian Collectables, Ltd | 0.265173 |
| Australian Collectors, Co. | 2.379900 |
| Australian Gift Network, Co | 0.000000 |
| Auto Associates & Cie. | NULL |
| Auto Camail- Petit | NULL |
| Auto-Moto Classics Inc. | 2.570383 |
| AV Stores, Co. | 2.064697 |
| Baane Mini Imports | 1.015551 |
+-----+-----+
+-----+-----+
| Technics Stores Inc. | 0.027223 |
| Tekni Collectables Inc. | NULL |
| The Sharp Gifts Warehouse | NULL |
| Tokyo Collectables, Ltd | NULL |
| Toms Spezialitäten, Ltd | 2.187853 |
| Toys of Finland, Co. | 0.913266 |
| Toys4GrownUps.com | 0.000000 |
| UK Collectables, Ltd. | 1.558414 |
| Vida Sport, Ltd | NULL |
| Vitachrome Inc. | 12.193911 |
| Volvo Model Replicas, Co | 4.691334 |
| West Coast Collectables Co. | 4.697746 |
+-----+-----+
98 rows in set (0.00 sec)
```

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

```
Empty set (0.01 sec)

mysql> select productName from Products where productName in (select distinct P.productName from Products P join OrderDetails OD on P.productCode=OD.productCode join Orders O on O.orderNumber=OD.orderNumber
where date_format(orderDate,"%Y")= 2003) and productName not in (select distinct P.productName from Products P join OrderDetails OD on P.productCode=OD.productCode join Orders O on O.orderNumber=OD.orderNumber
where date_format(orderDate,"%Y")= 2004);
Empty set (0.01 sec)

mysql>
```

## 20. Find the customers without payments in 2003.

```
mysql> select distinct customerName from (customers where customerName not in (select distinct C.customerName from Customers C join Payments PV on C.customerNumber=PV.customerNumber
where date_format(paymentDate,"%Y")=2003) order by customerName);
+-----+
| customerName |
+-----+
| American Souvenirs Inc |
| Amica Models & Co. |
| AMG Resellers |
| Anton Designs, Ltd. |
| Asian Shopping Network, Co |
| Asian Treasures, Inc. |
| Auto Associates & Cie. |
| Auto Camail- Petit |
| Bavarian Collectables Imports, Co. |
| B&K Collectables |
| Cambridge Collectables Co. |
| Clower Collections, Co. |
| Collectable Mini Designs Co. |
| Cramer Spezialitäten, Ltd |
| Der Hund Imports |
| Diecast Classics Inc. |
| Extreme Desk Decorations, Ltd |
| Feuer Online Stores, Inc |
| Franken Gifts, Co |
| Gifts4AllAges.com |
| giftsbyemail.co.uk |
| Handji Gifts& Co |
| Havel & Zbysek Co |
| Komission Auto |
| Kremlin Collectables, Co. |
| La Rochelle Gifts |
| Lisboa Souvenirs, Inc |
| Marta's Replicas Co. |
| Messner Shopping Network |
| Microscale Inc. |
| Mini Caravay |
| Mit Vergnügen & Co. |
| Natürlich Autos |
| Online Mini Collectables |
| Osaka Souvenirs Co. |
| Petit Auto |
| Porto Imports Co. |
| Precious Collectables |
| Raanen Stores, Inc |
| Royal Canadian Collectables, Ltd. |
+-----+
+-----+
| SAR Distributors, Co |
| Scandinavian Gift Ideas |
| Schuyler Imports |
| Stuttgart Collectable Exchange |
| Tekni Collectables Inc. |
| The Sharp Gifts Warehouse |
| Tokyo Collectables, Ltd |
| Vida Sport, Ltd |
| Warburg Exchange |
+-----+
49 rows in set (0.00 sec)
```