**SQL case study on Axon Classic model cars**

**/\* Which country has the highest number of customers \*/**

select country, count(\*) as total\_customers from customers

group by country

order by total\_customers desc

limit 10;

|  |  |
| --- | --- |
| USA | 36 |
| Germany | 13 |
| France | 12 |
| Spain | 7 |
| Australia | 5 |
| UK | 5 |
| New Zealand | 4 |
| Italy | 4 |
| Norway | 3 |
| Singapore | 3 |

**find the number of products ordered by each vendor**

select p.productvendor,count(o.ordernumber) as total\_orders from

products p inner join orderdetails o on p.productcode=o.productcode

group by productvendor

order by total\_orders desc;

|  |  |
| --- | --- |
| Classic Metal Creations | 270 |
| Motor City Art Classics | 249 |
| Carousel DieCast Legends | 246 |
| Unimax Art Galleries | 244 |
| Gearbox Collectibles | 242 |
| Exoto Designs | 240 |
| Highway 66 Mini Classics | 222 |
| Autoart Studio Design | 221 |
| Min Lin Diecast | 220 |
| Second Gear Diecast | 220 |
| Studio M Art Models | 217 |
| Welly Diecast Productions | 216 |
| Red Start Diecast | 189 |

**/\* find the employees who made highest sales\*/**

select e.employeeNumber, concat(e.firstName,' ', e.lastName) as employeeName,sum(p.amount) as total\_sales

from employees e inner join customers c on c.salesRepEmployeeNumber=e.employeeNumber

inner join payments p on p.customerNumber=c.customerNumber

group by employeeNumber

order by total\_sales desc

limit 5;

|  |  |  |
| --- | --- | --- |
| 1370 | Gerard Hernandez | 1112003.81 |
| 1165 | Leslie Jennings | 989906.55 |
| 1401 | Pamela Castillo | 750201.87 |
| 1501 | Larry Bott | 686653.25 |
| 1504 | Barry Jones | 637672.65 |

**find the month wise profit on three years**

select year(orderdate) as year,

sum(case when month(orderdate)=1 then amount end) as jan,

sum(case when month(orderdate)=2 then amount end) as feb,

sum(case when month(orderdate)=3 then amount end) as mar,

sum(case when month(orderdate)=4 then amount end) as apr,

sum(case when month(orderdate)=5 then amount end) as may,

sum(case when month(orderdate)=6 then amount end) as jun,

sum(case when month(orderdate)=7 then amount end) as jul,

sum(case when month(orderdate)=8 then amount end) as aug,

sum(case when month(orderdate)=9 then amount end) as sep,

sum(case when month(orderdate)=10 then amount end) as oct,

sum(case when month(orderdate)=11 then amount end) as nov,

sum(case when month(orderdate)=12 then amount end) as dece

from orders o join payments p on o.customerNumber=p.customerNumber

where year(orderdate) in (2003,2004,2005)

group by year(orderdate)

order by year(orderdate);

year, jan, feb, mar, apr, may, jun, jul, aug, sep, oct, nov, dece

'2003', '1084848.46', '342616.13', '1008184.43', '675401.60', '594051.22', '1916092.76', '1150012.00', '912977.98', '1325992.34', '2097523.18', '3549850.02', '1957658.29'

'2004', '1222123.67', '856272.96', '1046151.38', '1368920.57', '1214122.86', '1639952.89', '1491833.24', '2194416.82', '779356.82', '2255548.04', '3418718.00', '3616815.16'

'2005', '2085081.72', '4571618.86', '3519351.43', '1025045.19', '3585538.35', NULL, NULL, NULL, NULL, NULL, NULL, NULL

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 2003 | 1084848.46 | 342616.13 | 1008184.43 | 675401.60 | 594051.22 | 1916092.76 | 1150012.00 | 912977.98 | 1325992.34 | 2097523.18 | 3549850.02 | 1957658.29 |
| 2004 | 1222123.67 | 856272.96 | 1046151.38 | 1368920.57 | 1214122.86 | 1639952.89 | 1491833.24 | 2194416.82 | 779356.82 | 2255548.04 | 3418718.00 | 3616815.16 |
| 2005 | 2085081.72 | 4571618.86 | 3519351.43 | 1025045.19 | 3585538.35 |  |  |  |  |  |  |  |

**find the product which is not ordered by any customer**

select p.productName, p.productCode, o.orderNumber from products p

left join orderdetails o on p.productCode=o.productCode

where o.productCode is null;

# productName, productCode, orderNumber

'1985 Toyota Supra', 'S18\_3233', NULL

**/\* which productline gives the more profit \*/**

select pl.productline,sum((od.priceEach-p.buyPrice)\*od.quantityOrdered) as profit

from orderdetails od inner join products p on p.productCode=od.productCode

inner join productlines pl on pl.productLine=p.productLine

group by productLine;

|  |  |
| --- | --- |
| Classic Cars | 1526212.20 |
| Motorcycles | 469255.30 |
| Planes | 365960.71 |
| Ships | 261289.47 |
| Trains | 65341.02 |
| Trucks and Buses | 400553.22 |
| Vintage Cars | 737268.33 |

**find the products how much stock remained in the classic models warehouse**

with cte as(

select p.productName,p.productCode,p.quantityInStock,sum(o.quantityOrdered) as Quantityordered

from products p inner join orderdetails o on p.productCode=o.productCode

group by p.productName,p.productCode,p.quantityInStock

order by Quantityordered desc)

select productName,

((quantityInStock)-(Quantityordered)) as balance\_stock from cte

order by balance\_stock desc;

|  |  |
| --- | --- |
| 2002 Suzuki XREO | 8969 |
| 1995 Honda Civic | 8855 |
| America West Airlines B757-200 | 8669 |
| 2002 Chevy Corvette | 8552 |
| 1932 Model A Ford J-Coupe | 8397 |
| 1982 Ducati 996 R | 8335 |
| 1976 Ford Gran Torino | 8212 |
| 1968 Dodge Charger | 8198 |
| 1912 Ford Model T Delivery Wagon | 8182 |
| 1965 Aston Martin DB5 | 8128 |
| 1948 Porsche Type 356 Roadster | 8042 |
| 1948 Porsche 356-A Roadster | 7854 |
| American Airlines: MD-11S | 7735 |
| 1936 Mercedes-Benz 500K Special Roadster | 7675 |
| 1950's Chicago Surface Lines Streetcar | 7667 |
| 1937 Lincoln Berline | 7582 |
| 1999 Indy 500 Monte Carlo SS | 7309 |
| 1904 Buick Runabout | 7300 |
| 1966 Shelby Cobra 427 S/C | 7282 |
| 1964 Mercedes Tour Bus | 7205 |
| 1971 Alpine Renault 1600s | 7026 |
| 1961 Chevrolet Impala | 6928 |
| 1917 Maxwell Touring Car | 6921 |
| 1969 Harley Davidson Ultimate Chopper | 6876 |
| 1982 Lamborghini Diablo | 6811 |
| 1957 Vespa GS150 | 6730 |
| 1992 Ferrari 360 Spider red | 6539 |
| 1939 Chevrolet Deluxe Coupe | 6395 |
| 1952 Alpine Renault 1300 | 6344 |
| 1969 Dodge Charger | 6331 |
| ATA: B757-300 | 6133 |
| The USS Constitution Ship | 6063 |
| 1930 Buick Marquette Phaeton | 5988 |
| 1997 BMW R 1100 S | 5970 |
| 1969 Corvair Monza | 5943 |
| 1982 Camaro Z28 | 5937 |
| 1982 Ducati 900 Monster | 5893 |
| 1962 LanciaA Delta 16V | 5859 |
| Corsair F4U ( Bird Cage) | 5761 |
| 1992 Porsche Cayenne Turbo Silver | 5715 |
| 1940 Ford Delivery Sedan | 5698 |
| 1932 Alfa Romeo 8C2300 Spider Sport | 5687 |
| 1939 Cadillac Limousine | 5650 |
| 1996 Moto Guzzi 1100i | 5626 |
| 1956 Porsche 356A Coupe | 5548 |
| Collectable Wooden Train | 5532 |
| 18th Century Vintage Horse Carriage | 5085 |
| 1957 Chevy Pickup | 5069 |
| 1900s Vintage Bi-Plane | 5002 |
| American Airlines: B767-300 | 4947 |
| 1970 Plymouth Hemi Cuda | 4763 |
| 1934 Ford V8 Coupe | 4664 |
| 1970 Triumph Spitfire | 4600 |
| 2003 Harley-Davidson Eagle Drag Bike | 4597 |
| 1980s Black Hawk Helicopter | 4290 |
| The Queen Mary | 4192 |
| 1980’s GM Manhattan Express | 4188 |
| Boeing X-32A JSF | 3897 |
| 1969 Chevrolet Camaro Z28 | 3825 |
| 1998 Chrysler Plymouth Prowler | 3738 |
| 1936 Chrysler Airflow | 3727 |
| 1936 Harley Davidson El Knucklehead | 3412 |
| 1999 Yamaha Speed Boat | 3293 |
| 1913 Ford Model T Speedster | 3151 |
| 1970 Dodge Coronet | 3098 |
| 1903 Ford Model A | 3030 |
| 1993 Mazda RX-7 | 3028 |
| 1928 British Royal Navy Airplane | 2655 |
| HMS Bounty | 2604 |
| 2001 Ferrari Enzo | 2600 |
| 1974 Ducati 350 Mk3 Desmo | 2443 |
| 1957 Ford Thunderbird | 2442 |
| 1972 Alfa Romeo GTA | 2222 |
| 1940s Ford truck | 2067 |
| 1937 Horch 930V Limousine | 2018 |
| 1954 Greyhound Scenicruiser | 1919 |
| 1938 Cadillac V-16 Presidential Limousine | 1892 |
| 1917 Grand Touring Sedan | 1806 |
| 1900s Vintage Tri-Plane | 1747 |
| 1940 Ford Pickup Truck | 1614 |
| 1958 Chevy Corvette Limited Edition | 1559 |
| 1949 Jaguar XK 120 | 1401 |
| 1941 Chevrolet Special Deluxe Cabriolet | 1302 |
| 1962 Volkswagen Microbus | 1298 |
| 1936 Mercedes Benz 500k Roadster | 1257 |
| 1926 Ford Fire Engine | 1020 |
| The Titanic | 1004 |
| The Schooner Bluenose | 963 |
| 1969 Dodge Super Bee | 943 |
| 18th century schooner | 887 |
| 1962 City of Detroit Streetcar | 679 |
| 1958 Setra Bus | 607 |
| 1952 Citroen-15CV | 579 |
| 1957 Corvette Convertible | 236 |
| 1970 Chevy Chevelle SS 454 | 202 |
| 1969 Ford Falcon | 84 |
| P-51-D Mustang | 75 |
| Diamond T620 Semi-Skirted Tanker | 37 |
| The Mayflower | -161 |
| 1996 Peterbilt 379 Stake Bed with Outrigger | -174 |
| 1911 Ford Town Car | -292 |
| 1928 Mercedes-Benz SSK | -332 |
| 2002 Yamaha YZR M1 | -392 |
| F/A 18 Hornet 1/72 | -496 |
| Pont Yacht | -544 |
| 1997 BMW F650 ST | -836 |
| 1928 Ford Phaeton Deluxe | -836 |
| 1968 Ford Mustang | -865 |
| 1960 BSA Gold Star DBD34 | -1000 |

**/\* select top five customers with highest number of orders \*/**

select c.customerName, COUNT(o.orderNumber) as total\_orders

from customers c

inner join orders o on c.customerNumber = o.customerNumber

Group by c.customerName

ORDER BY total\_orders desc

limit 5;

|  |  |
| --- | --- |
| Euro+ Shopping Channel | 26 |
| Mini Gifts Distributors Ltd. | 17 |
| Danish Wholesale Imports | 5 |
| Australian Collectors, Co. | 5 |
| Dragon Souveniers, Ltd. | 5 |

**/\* top most ordered products based on total orders \*/**

select p.productName, sum(o.orderNumber) as total\_orders

from orders o inner join orderdetails od on o.orderNumber=od.orderNumber

inner join products p on p.productCode=od.productCode

group by productName

order by total\_orders desc

limit 10;

|  |  |
| --- | --- |
| 1992 Ferrari 360 Spider red | 543680 |
| 2002 Suzuki XREO | 287447 |
| 1969 Harley Davidson Ultimate Chopper | 287441 |
| 1997 BMW R 1100 S | 287439 |
| 2003 Harley-Davidson Eagle Drag Bike | 287436 |
| 1936 Harley Davidson El Knucklehead | 287434 |
| 1960 BSA Gold Star DBD34 | 287433 |
| 1996 Moto Guzzi 1100i | 287432 |
| 1997 BMW F650 ST | 287424 |
| ATA: B757-300 | 287420 |

**/\* find total number of orders in each year\*/**

select year(orderDate) as year, count(orderNumber) as total\_orders

from orders group by year;

|  |  |
| --- | --- |
| 2003 | 111 |
| 2004 | 151 |
| 2005 | 64 |