

### Case Study 3 of 3: SQL with Pine Valley Furniture Company Database Business Intelligence and Analytics

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1. List customer ID, customer name, order ID, order date, product name, and the quantity multiplied by the price for each product. Give the mathematical expression the alias of [Extended price].

```
SELECT C.customer_id, C.customer_name, O.Order_id, O.order_date,
product_description,(ordered_quantity*standard_price) AS [Extended Price]
```

```
FROM
Customer_t C, Order_t O, order_line_t OL, Product_t P
```

```
WHERE
C.customer_id=O.customer_id
AND
O.order_id=OL.order_id
AND
OL.product_id=P.product_id;
```

Customer_ID	Customer_Name	Order_id	order_date	Product_Descriptio	Extended Pri
1	Contemporary Casuals	1001	10/21/2008	End Table	\$350.00
1	Contemporary Casuals	1001	10/21/2008	Coffee Table	\$400.00
1	Contemporary Casuals	1001	10/21/2008	Entertainment Center	\$650.00
8	California Classics	1002	10/21/2008	Computer Desk	\$1,875.00
15	Mountain Scenes	1003	10/22/2008	Computer Desk	\$1,125.00
5	Impressions	1004	10/22/2008	8-Drawer Desk	\$1,500.00
5	Impressions	1004	10/22/2008	Computer Desk	\$500.00
3	Home Furnishings	1005	10/24/2008	Entertainment Center	\$2,600.00
2	Value Furniture	1006	10/24/2008	Entertainment Center	\$650.00
2	Value Furniture	1006	10/24/2008	Writers Desk	\$650.00
2	Value Furniture	1006	10/24/2008	Dining Table	\$1,600.00
11	American Euro Lifestyles	1007	10/27/2008	End Table	\$525.00
11	American Euro Lifestyles	1007	10/27/2008	Coffee Table	\$400.00
12	Battle Creek Furniture	1008	10/30/2008	Computer Desk	\$1,125.00
12	Battle Creek Furniture	1008	10/30/2008	Computer Desk	\$750.00
4	Eastern Furniture	1009	11/5/2008	Entertainment Center	\$1,300.00
4	Eastern Furniture	1009	11/5/2008	Dining Table	\$2,400.00
1	Contemporary Casuals	1010	11/5/2008	Computer Desk	\$2,500.00

2. List the order ID, order date, order total, and the total units on each order.

```

SELECT
O.Order_id,O.order_date, SUM(OL.Ordered_Quantity*P.Standard_Price),
SUM(OL.ordered_quantity)

FROM
Order_t O, order_line_t OL, Product_t P

WHERE
O.order_id=OL.order_id

AND
OL.product_id=P.product_id

GROUP BY
O.Order_id,O.order_date;

```

	Order_id ▼	order_date ▼	Expr1002 ▼	Expr1003 ▼
	1001	10/21/2008	\$1,400.00	5
	1002	10/21/2008	\$1,875.00	5
	1003	10/22/2008	\$1,125.00	3
	1004	10/22/2008	\$2,000.00	4
	1005	10/24/2008	\$2,600.00	4
	1006	10/24/2008	\$2,900.00	5
	1007	10/27/2008	\$925.00	5
	1008	10/30/2008	\$1,875.00	6
	1009	11/5/2008	\$3,700.00	5
	1010	11/5/2008	\$2,500.00	10

3. How many products in Cherry have been ordered (i.e., the total number of units ordered)? List the product name, the product finish, and the total quantity ordered for each product with a Cherry finish. Also give the quantity ordered the alias of "Quantity Ordered".

```
SELECT
P.product_description,P.product_finish,SUM(ordered_quantity) AS[Quantity Ordered]

FROM
order_line_t OL ,Product_t P

WHERE
OL.product_id= P.product_id
AND
P.product_finish= "Cherry"

GROUP BY P.product_description,P.product_finish;
```

Product Descriptio ▾	Product_Finis ▾	Quantity Orc ▾
End Table	Cherry	5
Writers Desk	Cherry	2

4. Which product lines have (include) two or less products? Your results should include the product line name and the number of products included in the product line.

```
SELECT
PL.Product_Line_Name, Count(*)

FROM
Product_LINE_t PL, product_t P

WHERE
PL.Product_Line_id=P.product_line_id

GROUP BY
Product_Line_Name

HAVING Count(*)<3;
```

Query3		
Product Line Name	Expr1001	
Cherry Tree	2	
Country Look	2	

5. Write a query that will retrieve customer ID, customer name, and order date, and that will display customer data even if the customer has not placed an order.

```

SELECT
C.Customer_ID, C.Customer_Name, O.Order_date

FROM
    Order_t O
    RIGHT JOIN Customer_t C
    ON C.customer_id=O.customer_id;

```

Customer_ID	Customer_Name	Order_date
1	Contemporary Casuals	10/21/2008
1	Contemporary Casuals	11/5/2008
2	Value Furniture	10/24/2008
3	Home Furnishings	10/24/2008
4	Eastern Furniture	11/5/2008
5	Impressions	10/22/2008
6	Furniture Gallery	
7	Period Furniture	
8	California Classics	10/21/2008
9	M and H Casual Furniture	
10	Seminole Interiors	
11	American Euro Lifestyles	10/27/2008
12	Battle Creek Furniture	10/30/2008
13	Heritage Furnishings	
14	Kaneohe Homes	
15	Mountain Scenes	10/22/2008
*(New)		

6. Write a nested query that will retrieve the product ID, product name, and product price for each product whose price is greater than the average price of all products.

```
SELECT  
Product_id,Product_description,Standard_Price  
FROM Product_t  
WHERE standard_price >  
(SELECT AVG(Standard_price) FROM Product_t);
```

	Product_ID ▾	Product_Description ▾	Standard_Price ▾
	4	Entertainment Center	\$650.00
	6	8-Drawer Desk	\$750.00
	7	Dining Table	\$800.00
*	(New)		\$0.00