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

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	٠	Customer_Name	-	Order_id	+	order_date +	Product_Descriptio →	Extended Pri
	1	Contemporary Casuals		10	001	10/21/2008	B End Table	\$350.00
	1	Contemporary Casuals		10	001	10/21/2008	3 Coffee Table	\$400.00
	1	Contemporary Casuals		10	001	10/21/2008	B Entertainment Center	\$650.00
	8	Calfornia Classics		10	002	10/21/2008	3 Computer Desk	\$1,875.00
	15	Mountain Scenes		10	003	10/22/2008	3 Computer Desk	\$1,125.00
	5	Impressions		10	004	10/22/2008	8 8-Drawer Desk	\$1,500.00
	5	Impressions		10	004	10/22/2008	B Computer Desk	\$500.00
	3	Home Furnishings		10	005	10/24/2008	B Entertainment Center	\$2,600.00
	2	Value Furniture		10	006	10/24/2008	B Entertainment Center	\$650.00
	2	Value Furniture		10	006	10/24/2008	Writers Desk	\$650.00
	2	Value Furniture		10	006	10/24/2008	B Dining Table	\$1,600.00
	11	American Euro Lifestyles		10	007	10/27/2008	8 End Table	\$525.00
	11	American Euro Lifestyles		10	007	10/27/2008	B Coffee Table	\$400.00
	12	Battle Creek Furniture		10	800	10/30/2008	3 Computer Desk	\$1,125.00
	12	Battle Creek Furniture		10	800	10/30/2008	B Computer Desk	\$750.00
	4	Eastern Furniture		10	009	11/5/2008	B Entertainment Center	\$1,300.00
	4	Eastern Furniture		10	009	11/5/2008	B Dining Table	\$2,400.00
	1	Contemporary Casuals		10	010	11/5/2008	8 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;

4	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

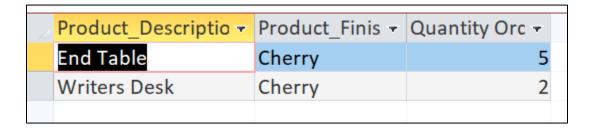
3. How many products in Cherry have been ordered (i.e., the total number of units ordered)? List the product name, the product finish, and the total quantity ordered for each product with a Cherry finish. Also give the quantity ordered the alias of "Quantity Ordered".

```
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;



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.

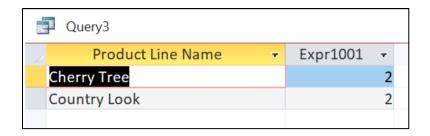
```
SELECT
PL.Product_Line_Name, Count(*)

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;
```



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

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