Comprehensive Sales, Product, and Customer Analysis of the XYZ Company SQL Server Project

This SQL project offers a comprehensive analysis of the XYZ Company, addressing critical aspects of sales, products, and customer behaviors. The insights drawn from this analysis, ranging from yearly sales and profit trends, regional market performance, to customer purchase frequencies, serve to inform and improve business strategies, enhance customer engagement, and ultimately drive profitability.

--General Analysis—

```
--What is the total sales and profit made each year?

--FIRST I WILL CONVERT THE ORDER DATE FROM STRING TO DATE IN ORDER TO EXTRACT THE YEAR

SELECT CONVERT(DATETIME, ORDER_DATE, 103)
FROM Product$
--REPLACING THE OLD ORDER DATE
ALTER TABLE Product$
ADD New_Order_Date DATETIME;

UPDATE Product$
SET New_Order_Date = CONVERT(DATETIME, ORDER_DATE, 103);

ALTER TABLE Product$
DROP COLUMN ORDER DATE;
```

```
-- NOW TO ANSWER THE FIRST QUESTION (What is the total sales and profit made each year?)

SELECT YEAR(NEW_ORDER_DATE) AS ORDERYEAR,

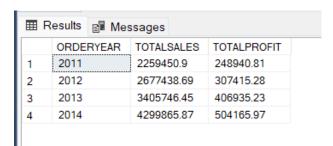
ROUND(SUM(SALES),2) AS TOTALSALES,

ROUND(SUM(PROFIT),2) AS TOTALPROFIT

FROM Product$

GROUP BY YEAR(NEW_ORDER_DATE)

ORDER BY ORDERYEAR
```



--Which region and market have the highest sales?

SELECT REGION, ROUND(SUM(SALES), 2) AS TOTALSALES

FROM Product\$

GROUP BY REGION

ORDER BY 2

SELECT Market, ROUND(SUM(SALES), 2) AS TOTALSALES

FROM Product\$

GROUP BY Market

ORDER BY 2

1	DECION	
1	REGION	TOTALSALES
١ ١	Canada	66928.17
2	Caribbean	324280.86
3	East	678781.24
4	West	725457.82
5	Central Asia	752826.57
6	Africa	783773.21
7	EMEA	806161.31
8	North Asia	848309.78
9	Southeast Asia	884423.17
10	Oceania	1100184.61
11	North	1248165.6
12	South	1600907.04
13	Central	2822302.52

⊞ F	Results [■ Messages
	Market	TOTALSALES
1	Canada	66928.17
2	Africa	783773.21
3	EMEA	806161.31
4	LATAM	2164605.17
5	US	2297200.86
6	EU	2938089.06
7	APAC	3585744.13

--How does shipping cost affect overall sales and profit?

SELECT SHIPPING_COST, ROUND(SUM(SALES),2) AS TOTALSALES, ROUND(SUM(Profit), 2) AS TOTALPROFIT

FROM Product\$

GROUP BY SHIPPING_COST

ORDER BY 1

⊞ н	⊞ Kesuits ∰ Messages				
	SHIPPING_COST	TOTALSALES	TOTALPROFIT		
1	0	74.82	4.2		
2	0.01	192.09	44.43		
3	0.02	252.82	-48.03		
4	0.03	384.13	31.63		
5	0.04	287.03	41.34		
6	0.05	563.04	-69.51		
7	0.06	525.07	21.63		
8	0.07	379.8	-20.01		
9	0.08	125.78	3.34		
10	0.09	428.8	18.5		
11	0.1	252.29	10.87		
12	0.11	188.57	-14.85		
13	0.12	131.92	-119		
14	0.13	141.34	-39.24		
15	0.14	381.87	23.11		
16	0.15	326.45	11.67		
47	0.16	026 72	0.4		

--Which shipping mode is the most preferred?

SELECT SHIP_MODE, COUNT (*) AS NUMBEROFORDERS

FROM Product\$

GROUP BY SHIP_MODE

ORDER BY 2 DESC

	SHIP_MODE	NUMBEROFORDERS
1	Standard Class	30775
2	Second Class	10309
3	First Class	7505
4	Same Day	2701

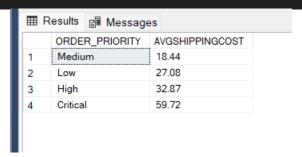
--How is the order priority affecting the shipping cost?

SELECT ORDER_PRIORITY, ROUND(AVG(SHIPPING_COST),2) AS AVGSHIPPINGCOST

FROM Product\$

GROUP BY ORDER_PRIORITY

ORDER BY 2



--How does the discount given affect the sales and profit?

SELECT DISCOUNT, ROUND(AVG(SALES),2) AS AVGSALES, ROUND(AVG(Profit), 2) AS

AVGPROFIT

FROM Product\$

GROUP BY DISCOUNT

ORDER BY 1

	Results 🗐 N	iessages	
		AVGSALES	AVGPROFIT
1	0	241.04	61.04
2	0.002	567.02	125.76
3	0.07	810.78	140.99
4	0.1	388.3	63.68
5	0.15	565.67	50.6
6	0.17	336.6	38.32
7	0.2	240.86	23.55
8	0.202	395.5	-14.52
9	0.25	444.72	4.04
10	0.27	230.29	-4.32
11	0.3	555.68	-57.9
12	0.32	536.79	-88.56
13	0.35	784.48	-116.14
14	0.37	427.27	-78.46
15	0.4	176.12	-45.25
16	0.402	324.36	-109.91
17	0.45	102 11	41.61

--How does the quantity sold affect the sales and profit?

SELECT QUANTITY, ROUND(SUM(SALES),2) AS TOTALSALES, ROUND(SUM(Profit), 2) AS

TOTALPROFIT

FROM Product\$

GROUP BY QUANTITY

ORDER BY 1

Ⅲ F	Results 📑	Messages	
	QUANTIT	Y TOTALSALES	TOTALPROFIT
1	1	659747.14	65022.24
2	2	1827781.06	208565.97
3	3	2017842.59	235501.24
4	4	1875526.47	221716.66
5	5	1804825.42	226905.52
6	6	1308374.66	125106.83
7	7	1169779.19	159368.64
8	8	748070.74	83753.36
9	9	597769.01	73846.27
10	10	172445.38	17189.48
11	11	111136.05	12721.96
12	12	112406.05	5114.55
13	13	87983.83	12906.28
14	14	148814.31	19738.3

-- Product Analysis—

--What are the top 10 products by sales?

SELECT TOP 10 PRODUCT_NAME, ROUND(SUM(SALES),2) AS TOTALSALES

FROM Product\$

GROUP BY PRODUCT_NAME

PRODUCT_NAME TOTALSALES 1 Hewlett Fax and Copier, Color 4820.31 2 Fellowes Trays, Industrial 5918.36 3 Jiffy Peel and Seal, Recycled 1062.83 4 Tenex Trays, Single Width 5854.67 5 Konica Card Printer, White 3604.68 6 C-Line Cubicle Keepers Polyproplyene Holder With 137.17 7 Avery 510 21.75 8 Cuisinart Refrigerator, White 6202.46 9 SAFCO Swivel Stool, Set of Two 12395.5 10 StarTech Card Printer, Wireless 4803.63		<u> </u>	
2 Fellowes Trays, Industrial 5918.36 3 Jiffy Peel and Seal, Recycled 1062.83 4 Tenex Trays, Single Width 5854.67 5 Konica Card Printer, White 3604.68 6 C-Line Cubicle Keepers Polyproplyene Holder With 137.17 7 Avery 510 21.75 8 Cuisinart Refrigerator, White 6202.46 9 SAFCO Swivel Stool, Set of Two 12395.5		PRODUCT_NAME	TOTALSALES
3 Jiffy Peel and Seal, Recycled 1062.83 4 Tenex Trays, Single Width 5854.67 5 Konica Card Printer, White 3604.68 6 C-Line Cubicle Keepers Polyproplyene Holder With 137.17 7 Avery 510 21.75 8 Cuisinart Refrigerator, White 6202.46 9 SAFCO Swivel Stool, Set of Two 12395.5	1	Hewlett Fax and Copier, Color	4820.31
4 Tenex Trays, Single Width 5854.67 5 Konica Card Printer, White 3604.68 6 C-Line Cubicle Keepers Polyproplyene Holder With 137.17 7 Avery 510 21.75 8 Cuisinart Refrigerator, White 6202.46 9 SAFCO Swivel Stool, Set of Two 12395.5	2	Fellowes Trays, Industrial	5918.36
5 Konica Card Printer, White 3604.68 6 C-Line Cubicle Keepers Polyproplyene Holder With 137.17 7 Avery 510 21.75 8 Cuisinart Refrigerator, White 6202.46 9 SAFCO Swivel Stool, Set of Two 12395.5	3	Jiffy Peel and Seal, Recycled	1062.83
6 C-Line Cubicle Keepers Polyproplyene Holder With 137.17 7 Avery 510 21.75 8 Cuisinart Refrigerator, White 6202.46 9 SAFCO Swivel Stool, Set of Two 12395.5	4	Tenex Trays, Single Width	5854.67
7 Avery 510 21.75 8 Cuisinart Refrigerator, White 6202.46 9 SAFCO Swivel Stool, Set of Two 12395.5	5	Konica Card Printer, White	3604.68
8 Cuisinart Refrigerator, White 6202.46 9 SAFCO Swivel Stool, Set of Two 12395.5	6	C-Line Cubicle Keepers Polyproplyene Holder With	137.17
9 SAFCO Swivel Stool, Set of Two 12395.5	7	Avery 510	21.75
	8	Cuisinart Refrigerator, White	6202.46
10 StarTech Card Printer, Wireless 4803.63	9	SAFCO Swivel Stool, Set of Two	12395.5
	10	StarTech Card Printer, Wireless	4803.63

```
--Which category and sub-category of products are the most profitable?

SELECT CATEGORY, ROUND(SUM(PROFIT),2) AS TOTALPROFIT

FROM Product$

GROUP BY CATEGORY

SELECT [Sub-Category], ROUND(SUM(PROFIT),2) AS TOTALPROFIT

FROM Product$

GROUP BY [Sub-Category]
```

1 Office Supplies 518473.83 2 Furniture 285204.72 3 Technology 663778.73 Sub-Category TOTALPROFIT 1 Supplies 22583.26 2 Storage 108461.49 3 Phones 216717.01 4 Fasteners 11525.42 5 Copiers 258567.55 6 Chairs 140396.27 7 Bookcases 161924.42 8 Machines 58867.87 9 Art 57953.91 10 Envelopes 29601.12 11 Binders 72449.85 12 Labels 15010.51 13 Furnishings 46967.43 14 Accessories 129626.31 15 Appliances 141680.59 16 Paper 59207.68 17 Tables -64083.39		CATEGORY	TOTALPROFIT
Sub-Category TOTALPROFIT 1 Supplies 22583.26 2 Storage 108461.49 3 Phones 216717.01 4 Fasteners 11525.42 5 Copiers 258567.55 6 Chairs 140396.27 7 Bookcases 161924.42 8 Machines 58867.87 9 Art 57953.91 10 Envelopes 29601.12 11 Binders 72449.85 12 Labels 15010.51 13 Furnishings 46967.43 14 Accessories 129626.31 15 Appliances 141680.59 16 Paper 59207.68	1	Office Supplies	518473.83
Sub-Category TOTALPROFIT 1 Supplies 22583.26 2 Storage 108461.49 3 Phones 216717.01 4 Fasteners 11525.42 5 Copiers 258567.55 6 Chairs 140396.27 7 Bookcases 161924.42 8 Machines 58867.87 9 Art 57953.91 10 Envelopes 29601.12 11 Binders 72449.85 12 Labels 15010.51 13 Furnishings 46967.43 14 Accessories 129626.31 15 Appliances 141680.59 16 Paper 59207.68	2	Furniture	285204.72
1 Supplies 22583.26 2 Storage 108461.49 3 Phones 216717.01 4 Fasteners 11525.42 5 Copiers 258567.55 6 Chairs 140396.27 7 Bookcases 161924.42 8 Machines 58867.87 9 Art 57953.91 10 Envelopes 29601.12 11 Binders 72449.85 12 Labels 15010.51 13 Furnishings 46967.43 14 Accessories 129626.31 15 Appliances 141680.59 16 Paper 59207.68	3	Technology	663778.73
2 Storage 108461.49 3 Phones 216717.01 4 Fasteners 11525.42 5 Copiers 258567.55 6 Chairs 140396.27 7 Bookcases 161924.42 8 Machines 58867.87 9 Art 57953.91 10 Envelopes 29601.12 11 Binders 72449.85 12 Labels 15010.51 13 Furnishings 46967.43 14 Accessories 129626.31 15 Appliances 141680.59 16 Paper 59207.68		Sub-Category	TOTALPROFIT
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4 Fasteners 11525.42 5 Copiers 258567.55 6 Chairs 140396.27 7 Bookcases 161924.42 8 Machines 58867.87 9 Art 57953.91 10 Envelopes 29601.12 11 Binders 72449.85 12 Labels 15010.51 13 Furnishings 46967.43 14 Accessories 129626.31 15 Appliances 141680.59 16 Paper 59207.68	2	Storage	108461.49
5 Copiers 258567.55 6 Chairs 140396.27 7 Bookcases 161924.42 8 Machines 58867.87 9 Art 57953.91 10 Envelopes 29601.12 11 Binders 72449.85 12 Labels 15010.51 13 Furnishings 46967.43 14 Accessories 129626.31 15 Appliances 141680.59 16 Paper 59207.68	3	Phones	216717.01
6 Chairs 140396.27 7 Bookcases 161924.42 8 Machines 58867.87 9 Art 57953.91 10 Envelopes 29601.12 11 Binders 72449.85 12 Labels 15010.51 13 Furnishings 46967.43 14 Accessories 129626.31 15 Appliances 141680.59 16 Paper 59207.68	4	Fasteners	11525.42
7 Bookcases 161924.42 8 Machines 58867.87 9 Art 57953.91 10 Envelopes 29601.12 11 Binders 72449.85 12 Labels 15010.51 13 Furnishings 46967.43 14 Accessories 129626.31 15 Appliances 141680.59 16 Paper 59207.68	5	Copiers	258567.55
8 Machines 58867.87 9 Art 57953.91 10 Envelopes 29601.12 11 Binders 72449.85 12 Labels 15010.51 13 Furnishings 46967.43 14 Accessories 129626.31 15 Appliances 141680.59 16 Paper 59207.68	6	Chairs	140396.27
9 Art 57953.91 10 Envelopes 29601.12 11 Binders 72449.85 12 Labels 15010.51 13 Furnishings 46967.43 14 Accessories 129626.31 15 Appliances 141680.59 16 Paper 59207.68	7	Bookcases	161924.42
10 Envelopes 29601.12 11 Binders 72449.85 12 Labels 15010.51 13 Furnishings 46967.43 14 Accessories 129626.31 15 Appliances 141680.59 16 Paper 59207.68	8	Machines	58867.87
11 Binders 72449.85 12 Labels 15010.51 13 Furnishings 46967.43 14 Accessories 129626.31 15 Appliances 141680.59 16 Paper 59207.68	9	Art	57953.91
12 Labels 15010.51 13 Furnishings 46967.43 14 Accessories 129626.31 15 Appliances 141680.59 16 Paper 59207.68	10	Envelopes	29601.12
13 Furnishings 46967.43 14 Accessories 129626.31 15 Appliances 141680.59 16 Paper 59207.68	11	Binders	72449.85
14 Accessories 129626.31 15 Appliances 141680.59 16 Paper 59207.68	12	Labels	15010.51
15 Appliances 141680.59 16 Paper 59207.68	13	Furnishings	46967.43
16 Paper 59207.68	14	Accessories	129626.31
10 1 10 10 10 10 10 10 10 10 10 10 10 10	15	Appliances	141680.59
17 Tables -64083.39	16	Paper	59207.68
,,	17	Tables	-64083.39

--What are the average sales for each category and sub-category of products?

SELECT CATEGORY, ROUND(AVG(SALES),2) AS AVGSALES, ROUND(AVG(Profit), 2) AS

AVGPROFIT

FROM Product\$

GROUP BY CATEGORY

	CATEGORY	AVGSALES	AVGPROFIT
1	Office Supplies	121.1	16.58
2	Furniture	416.25	28.88
3	Technology	467.86	65.45
	Sub-Category	AVGSALES	AVGPROFIT
1	Supplies	100.24	9.31
2	Storage	222.79	21.44
3	Phones	508.44	64.56
4	Fasteners	34.4	4.76
5	Copiers	679.01	116.31
6	Chairs	437.3	40.88
7	Bookcases	608.28	67.16
8	Machines	524.27	39.61
9	Art	76.2	11.87
10	Envelopes	70.19	12.16
11	Binders	75.08	11.78
12	Labels	28.17	5.76
13	Furnishings	121.63	14.82
14	Accessories	243.65	42.15
15	Appliances	576.11	80.73
16	Paper	69.05	16.73
17	Tables	879.26	-74.43

--How does the discount given affect the sales and profit of each product?

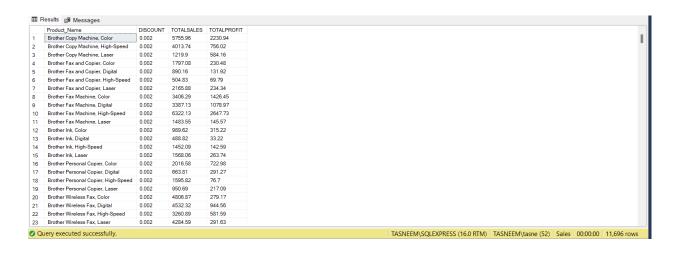
SELECT [Product_Name], DISCOUNT, ROUND(SUM(SALES),2) AS TOTALSALES,

ROUND(SUM(Profit), 2) AS TOTALPROFIT

FROM Product\$

WHERE DISCOUNT <> 0

GROUP BY [Product_Name], Discount



--What are the top 10 products by shipping cost? SELECT TOP 10 PRODUCT_NAME, SUM(SHIPPING_COST) AS TOTALSHIPPINGCOST FROM Product\$ GROUP BY Product Name



--Which countrIES haVE top sales?

SELECT TOP 5 COUNTRY, ROUND(SUM(SALES),2) AS TOTALSALES

FROM Product\$

GROUP BY COUNTRY



```
--Which are the top 5 profit-making product types on a yearly basis
SELECT TOP 5 PRODUCT_NAME, ROUND(SUM(PROFIT),2) AS TOTALPROFIT
FROM Product$
WHERE YEAR(NEW ORDER DATE) = 2011
GROUP BY PRODUCT_NAME
SELECT TOP 5 PRODUCT_NAME, ROUND(SUM(PROFIT),2) AS TOTALPROFIT
FROM Product$
WHERE YEAR(NEW_ORDER_DATE) = 2012
GROUP BY PRODUCT_NAME
SELECT TOP 5 PRODUCT NAME, ROUND(SUM(PROFIT),2) AS TOTALPROFIT
FROM Product$
WHERE YEAR(NEW_ORDER_DATE) = 2013
GROUP BY PRODUCT_NAME
SELECT TOP 5 PRODUCT_NAME, ROUND(SUM(PROFIT),2) AS TOTALPROFIT
FROM Product$
WHERE YEAR(NEW_ORDER_DATE) = 2014
GROUP BY PRODUCT_NAME
```

■ Results						
PRODUCT_NAME	PRODUCT_NAME					
1 #10-4 1/8" x 9 1/2" Recycled	#10- 4 1/8" x 9 1/2" Recycled Envelopes #10- 4 1/8" x 9 1/2" Security-Tint Envelopes					
2 #10- 4 1/8" x 9 1/2" Security-	#10- 4 1/8" x 9 1/2" Security-Tint Envelopes					
3 #10 White Business Envelop	#10 White Business Envelopes,4 1/8 x 9 1/2 1.7 Cubic Foot Compact "Cube" Office Refrigerators					
4 1.7 Cubic Foot Compact "Cu						
5 1/4 Fold Party Design Invitati	1/4 Fold Party Design Invitations & White Envelop					
PRODUCT_NAME			TOTALPROFIT			
1 #10- 4 1/8" x 9 1/2" Recycled	l Envelopes		55.85			
2 #10 Gummed Flap White Er	velopes, 100/Box		2.15			
3 #10 White Business Envelop	es,4 1/8 x 9 1/2		4.23			
4 #10-4 1/8" x 9 1/2" Premium	#10-4 1/8" x 9 1/2" Premium Diagonal Seam Envelop.					
5 #6 3/4 Gummed Flap White	#6 3/4 Gummed Flap White Envelopes					
PRODUCT_NAME	PRODUCT_NAME					
1 Tenex Trays, Single Width			206.75			
 Hewlett Fax and Copier, Col 	or		296.26			
3 Konica Card Printer, White			-85.85			
4 C-Line Cubicle Keepers Poly	proplyene Holder W	ith	10.97			
5 Jiffy Peel and Seal, Recycled	d	4	41.55			
PRODUCT_NAME	TOTALPROFIT					
1 Jiffy Peel and Seal, Recycled	Jiffy Peel and Seal, Recycled 21.72					
2 Tenex Trays, Single Width	Tenex Trays, Single Width 317.37					
3 Fellowes Trays, Industrial	239.56					
4 Konica Card Printer, White	428.06					
Query executed successful	ly.					

```
--How is the product price varying with sales - Is there any increase in sales with the decrease in price at a day level

SELECT NEW_ORDER_DATE, ROUND(SUM(SALES),2) AS TOTALSALES,

SUM(SALES)/SUM(QUANTITY) AVGPRICEPERUNIT

FROM Product$

GROUP BY NEW_ORDER_DATE

ORDER BY 1
```

NE	W ORDER DATE	TOTALSALES	AVGPRICEPERUNIT
	2011-01-01 00:00:00.000	808.56	42.5559473684211
2	2011-01-02 00:00:00.000	314.22	314.22
3	2011-01-03 00:00:00.000	4503.54	93.8236916666667
4	2011-01-04 00:00:00.000	2808.87	54.0167353846154
5	2011-01-05 00:00:00.000	3662.31	152.59625
6	2011-01-06 00:00:00.000	622.54	27.0668739130435
7	2011-01-07 00:00:00.000	7123.02	104.750272058824
В	2011-01-08 00:00:00.000	6293.26	136.81
9	2011-01-09 00:00:00.000	813.75	27.12498
0	2011-01-10 00:00:00.000	6794.18	101.405688955224
1	2011-01-11 00:00:00.000	6451.25	84.8848907894737
12	2011-01-12 00:00:00.000	2629.72	67.4286287179487
13	2011-01-13 00:00:00.000	2584.6	76.0175
14	2011-01-14 00:00:00.000	6280.45	49.452342519685
15	2011-01-15 00:00:00.000	2279.53	61.6089351351351
16	2011-01-16 00:00:00.000	149.95	29.99
17	2011-01-17 00:00:00.000	2309.53	40.5180568421053
18	2011-01-18 00:00:00.000	932.76	54.8684117647059
19	2011-01-19 00:00:00.000	2054.69	51.367275
20	2011-01-20 00:00:00.000	2289.24	48.7072553191489
21	2011-01-21 00:00:00.000	8485.36	84.0134415841584
22	2011-01-22 00:00:00.000	3564.12	77.4809673913043
3	2011-01-23 00:00:00.000	2163.43	127.260588235294

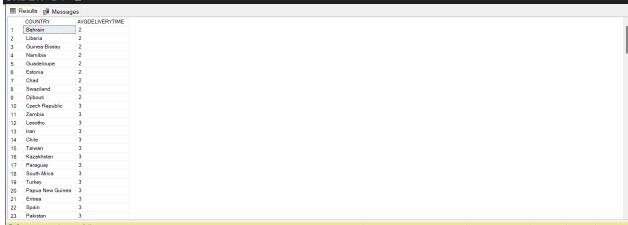
--What is the average delivery time across the counties?

SELECT COUNTRY, AVG(DATEDIFF(DAY, NEW_ORDER_DATE, CONVERT(DATETIME, SHIP_DATE, 103))) AS AVGDELIVERYTIME

FROM Product\$

GROUP BY COUNTRY

ORDER BY 2



Query executed successfully.

TASNEEM\SQLEXPRESS (16.0 RTM) | TASNEEM\tasne (52) | Superstore | 00:00:00 | 147 rows

-- Customer Analysis—

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-Customer Analysis--

--Who are the top 10 customers by sales?

SELECT TOP 10 CUSTOMER_NAME, ROUND(SUM(SALES),2) AS TOTALSALES

FROM [dbo].[Customer$]

GROUP BY CUSTOMER_NAME
```

⊞ F	Results	Message	s
	CUSTOMER_NAME		TOTALSALES
1	Tamai	ra Chand	37457.33
2	Brian	Moss	17458.1
3	Micha	el Chen	15939.61
4	Justin	MacKendrick	9026.06
5	John H	Huston	25945.73
6	Sheri (Gordon	13816.95
7	Liz Ca	rlisle	20127.53
8	Jesus	Ocampo	8206.67
9	Doug	Bickford	12855.61
10	Sean	Miller	35170.93

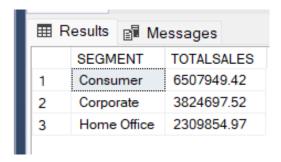
--What segment of customers contributes the most to the sales?

SELECT SEGMENT, ROUND(SUM(SALES),2) AS TOTALSALES

FROM [dbo].[Customer\$]

GROUP BY SEGMENT

ORDER BY 2 DESC



```
--What are the preferred shipping modes for each customer segment?

WITH SHIPPINGCOUNT AS (

SELECT SEGMENT, SHIP_MODE, COUNT(*) AS NUMBEROFORDERS

FROM [dbo].[Customer$]

GROUP BY SEGMENT, SHIP_MODE
),

MAXSHIPPINGCOUNT AS (

SELECT SEGMENT, MAX(NUMBEROFORDERS) AS MAXNUMBEROFORDERS

FROM SHIPPINGCOUNT

GROUP BY SEGMENT
)

SELECT SC.SEGMENT, SC.SHIP_MODE, SC.NUMBEROFORDERS

FROM SHIPPINGCOUNT SC

JOIN MAXSHIPPINGCOUNT MS
ON SC.SEGMENT = MS.SEGMENT

AND SC.NUMBEROFORDERS = MS.MAXNUMBEROFORDERS;
```

⊞ F	Results 📶 Me	essages	
	SEGMENT	SHIP_MODE	NUMBEROFORDERS
1	Home Office	Standard Class	5641
2	Corporate	Standard Class	9258
3	Consumer	Standard Class	15876

--How does the quantity purchased by each customer segment affect the sales and profit?

SELECT SEGMENT, ROUND(SUM(QUANTITY),2), ROUND(SUM(SALES),2), ROUND(SUM(PROFIT),2)

FROM [dbo].[Customer\$]

GROUP BY SEGMENT

	SEGMENT	(No column name)	(No column name)	(No column name)
1	Corporate	53565	3824697.52	441208.33
2	Home Office	32590	2309854.97	277009.18
3	Consumer	92157	6507949.42	749239.78

```
--What is the average discount availed by each customer segment?

SELECT SEGMENT, AVG(DISCOUNT)

FROM [dbo].[Customer$]

GROUP BY SEGMENT
```

⊞ F	Results	₽ Me	essages
	SEGM	ENT	(No column name)
1	Corpo	rate	0.142931103765636
2	Home	Office	0.140897142245534
3	Consu	mer	0.143602157025405

--How does the order priority vary across different customer segments?

SELECT SEGMENT, ORDER_PRIORITY, COUNT(ORDER_ID) AS NUMBEROFORDERS

FROM [dbo].[Customer\$]

GROUP BY SEGMENT, ORDER_PRIORITY

⊞ F	Results 🗐 Me	essages	
	SEGMENT	ORDER_PRIORITY	NUMBEROFORDERS
1	Corporate	Medium	9069
2	Corporate	Low	744
3	Corporate	High	4431
4	Corporate	Critical	1185
5	Consumer	Medium	15017
6	Consumer	High	8257
7	Home Office	Low	507
8	Home Office	High	2813
9	Home Office	Medium	5347
10	Consumer	Low	1173
11	Home Office	Critical	676
12	Consumer	Critical	2071

```
--Profile the customers based on their frequency of purchase - calculate frequency of purchase for each customer SELECT CUSTOMER_ID, CUSTOMER_NAME, COUNT(DISTINCT(ORDER_ID)) AS PURCHASEFREQUENCY FROM [dbo].[Customer$] GROUP BY CUSTOMER_ID, CUSTOMER_NAME ORDER BY 3 DESC
```

	CUSTOMER_ID	CUSTOMER_NAME	PURCHASEFREQUENCY
1	PO-18850	Patrick O'Brill	41
2	MP-17965	Michael Paige	39
3	KH-16690	Kristen Hastings	39
4	JH-15985	Joseph Holt	38
5	AR-10825	Anthony Rawles	38
6	CK-12205	Chloris Kastensmidt	38
7	WB-21850	William Brown	38
8	ZC-21910	Zuschuss Carroll	37
9	NS-18640	Noel Staavos	37
10	SZ-20035	Sam Zeldin	37
11	SC-20380	Shahid Collister	37
12	TP-21130	Theone Pippenger	37
13	DW-13585	Dorothy Wardle	37
14	BE-11335	Bill Eplett	37
15	JG-15805	John Grady	37
16	EM-13960	Eric Murdock	37
47	FO 1420E	Frank Olsen	27

```
--Do the high frequent customers are contributing more revenue

SELECT CUSTOMER_ID, CUSTOMER_NAME, COUNT(DISTINCT(ORDER_ID)) AS

PURCHASEFREQUENCY, ROUND(SUM(Sales),2) AS TOTALSALES

FROM [dbo].[Customer$]

GROUP BY CUSTOMER_ID, CUSTOMER_NAME

ORDER BY 3 DESC
```

```
CUSTOMER_ID GUSTOMER_NAME PURCHASEFREQUENCY TOTALSALES
PO-18850 Patrick O'Brill 41 25274.47
                          Michael Paige
                                                                               17228.5
      JH-15985
                           Joseph Holt
                                                                               18863.4

        Joseph Holt
        38

        Anthony Rawles
        38

        Chloris Kastensmidt
        38

       AR-10825
                                                                               15311.04
      CK-12205
       WB-21850
                                                                              16704.66
       ZC-21910
       NS-18640
                          Noel Staavos
Sam Zeldin
                                                                              14866.09
      SZ-20035
                                                                               15192.38
                          Shahid Collister
Theone Pippenger
Dorothy Wardle
37
                           Shahid Collister
      SC-20380
 12 TP-21130
                                                                               22697.58
13 DW-13585
14 BE-11335
                                                                              27158.02
 15 JG-15805
16 EM-13960
                           John Grady
                                                                               22015.39
                          Eric Murdock
Ouerv executed successfully
                                                                                                                                                         TASNEEM\SQLEXPRESS (16.0 RTM) | TASNEEM\tasne (54) | Superstore | 00:00:00 | 1.590 row
```

```
--what is the profit margin across the buckets
-- TO FIND THE MARGIN PROFIT WE NEED TO SUBTRACT COST FROM SALES THEN DIVDE BY
SALES ASSUMING THAT THIS IS THE PROFIT COLUMN WE DIVIDE PROFIT/SALES

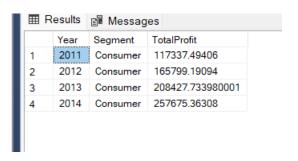
SELECT
Product_Name,
SUM(Profit) AS TotalProfit,
SUM(Sales) AS TotalSales,
(SUM(Profit) / NULLIF(SUM(Sales), 0)) * 100 AS ProfitMargin

FROM
[dbo].[Customer$]
GROUP BY
Product_Name

ORDER BY
ProfitMargin DESC;
```

	Product_Name	TotalProfit	TotalSales	ProfitMargin
1	Adams Telephone Message Book w/Frequently-Called Nu	111.72	223.44	50
2	Tops Green Bar Computer Printout Paper	171.29	342.58	50
3	Avery 475	133.2	266.4	50
4	Canon imageCLASS MF7460 Monochrome Digital Laser	1995.99	3991.98	50
5	Southworth Structures Collection	36.4	72.8	50
6	Xerox 1890	122.35	244.7	50
7	Avery 5	2.8224	5.76	49
8	Xerox 1918	75.9696	155.04	49
9	Xerox 1987	45.3152	92.48	49
10	Ativa V4110MDD Micro-Cut Shredder	3772.9461	7699.89	49
11	Strathmore #10 Envelopes, Ultimate White	309.9348	632.52	49
12	Hewlett-Packard Desktjet 6988DT Refurbished Printer	1668.205	3404.5	49
13	Avery 478	43.3062	88.38	49
14	Xerox 193	38.0926	77.74	49
15	Color-Coded Legal Exhibit Labels	7.2177	14.73	49
16	Xerox 1983	14.651	29.9	49
17	Vores 1004	6.2504	12.06	40

```
--Which customer segment is most profitable in each year?
WITH YearlySegmentProfit AS (
   SELECT
        YEAR(NEW_Order_Date) AS Year,
        Segment,
       SUM(Profit) AS TotalProfit
    FROM
        [dbo].[Customer$]
    GROUP BY
       YEAR(NEW_Order_Date),
        Segment
RankedYearlySegmentProfit AS (
    SELECT
       Year,
        Segment,
       TotalProfit,
        RANK() OVER(PARTITION BY Year ORDER BY TotalProfit DESC) AS ProfitRank
    FROM
        YearlySegmentProfit
SELECT
   Year,
   Segment,
   TotalProfit
    RankedYearlySegmentProfit
WHERE
    ProfitRank = 1;
```



--How the customers are distributed across the countries- SELECT COUNTRY, COUNT(DISTINCT(CUSTOMER_NAME)) AS CUSTOMERS
FROM [dbo].[Customer\$]
GROUP BY COUNTRY
ORDER BY 2 DESC

