

## Introductions

This PDF Describes

how I Work on the data set

create insights to answer the Questions

Create insights as my view point to describe more data

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How I work on The Projects

1-Loading and modeling data

2-Make relations of tables

3-Add columns to calculate profit

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Answer the question

## How I work on The Projects

### 1-Loading and modeling data

I explore the row data and found that we have

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1																		
2	Sheet 1																	
3		Customer Code	Customer name	Customer Channel type	X Axis	Y Axis	Number of Doors	Route	Rep name	Supervisor name	Service Channel	Depot	USM name	Region	RSM	Discount		
4		Cu 119	الخطوط الجوية	Route	29-97827170	32-5494233	1	8-Pre	الخطوط الجوية	Rep 189	Sup 38	Preoff	Suez	USM 19	Carrel Zone	RSM 5	0.75%	
5																		
6																		
7	customer Base																	
8		Customer Code	Customer name	Customer Channel type	Customer coordinates X	Customer coordinates Y	Number of Doors	Route	Rep name	Supervisor name	Service Channel	Depot	USM name	Region	RSM	Discount		
9		Cu 456	36-الخطوط الجوية	DM	30.043400	31.185400	3	35-Prevalley	Rep 63	Sup 13	Cairo	36-Bachetel	USM 8	Giza	RSM 2	1.25%		
10																		
11																		
12	Pack Details																	
13		SKU Code	Pack	Number of units	Volume	Pack type	Flavor	Flavor Category	Unit case conversion	Price	Total Cost	Margins	Rep. commission	Sop. Commission	RSM Commission			
14		Core S 1	192 ml	24	8.192	SSRGB	Coca-Cola	Core Sgran8	0.8119534	82.00	54.00	8.88	0.35	8.03	0.03			
15																		
16																		
17	transaction 3																	
18		Customer Code	SKU Code	Quantity	Ordering Date	Delivery Date	Days For Delivery	Day	Month	Year	Calendar Day							
19		Cu 1	Core S 1	4	01-Jan-18	03-Jan-18	2.000	1	January	2018	Monday							
20																		
21																		
22	transaction 2																	
23		Customer Code	SKU Code	Quantity	Ordering Date	Delivery Date	Days For Delivery	Day	Month	Year	Calendar Day							
24		Cu 1	Core S 1	3	16-Feb-15	18-Feb-15	2.000	16	February	2015	Monday							
25																		
26																		
27	transaction																	
28		Customer Code	SKU Code	Quantity	Ordering Date	Delivery Date	Days For Delivery	Day	Month	Year	Calendar Day							
29		Cu 1	Core S 1	2	04-Apr-12	06-Apr-12	2.000	4	April	2012	Wednesday							

And we can merge them via power bi using 'append queries'

After merging the result is 3 tables:

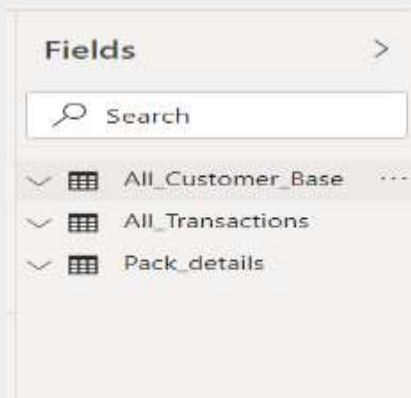
All customer base: This the table is the result of merging the 2 tables of 'sheet1' & 'Customer Base' which describe all the customer characteristics and figures now in one table

All Transactions: This Table is the result of merging the 3 Tables of Transactions 1,2 and 3 which provide to us all transactions that had been done I the last 9 years with the dates.

Pack details: this table did not need to be merged and it describe all product that the company sell.

And these 3 tables include all row date of all 6 tables in excel sheet.

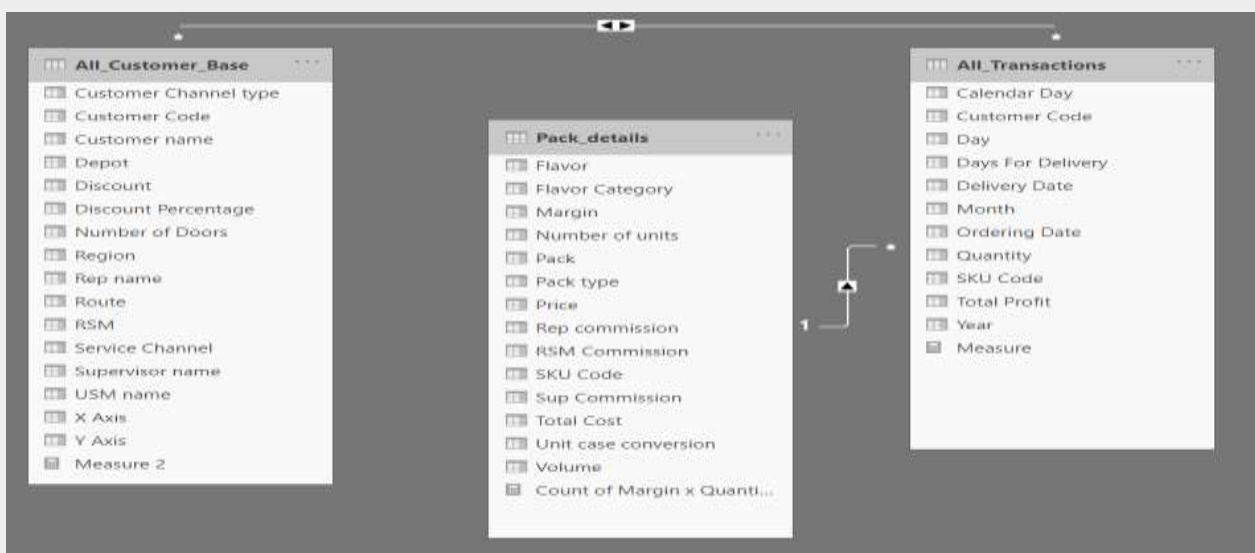
And now we have the following tables:



Now we need to make a relation between the 3 tables which include all row data after merging them.

## 2-Make relations of tables

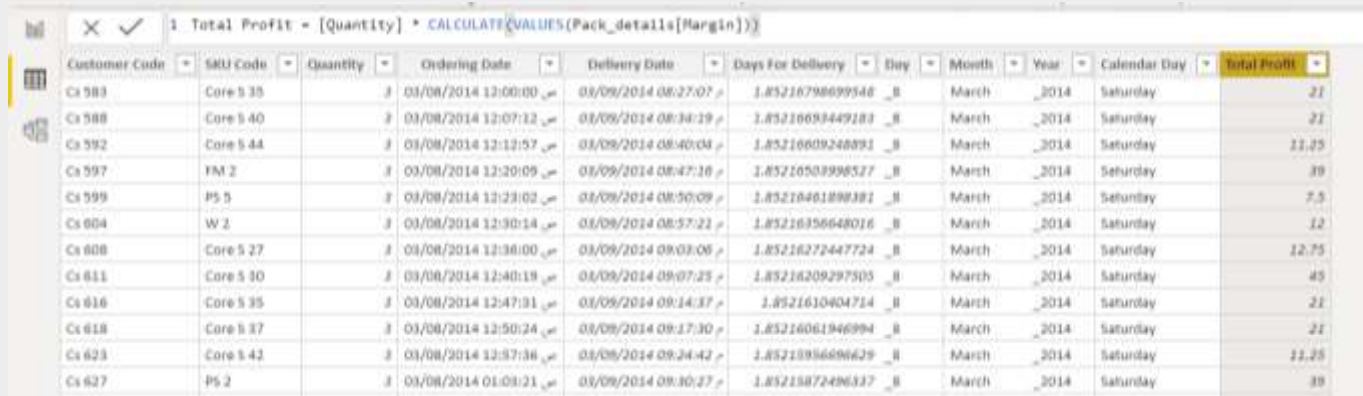
The following show the relations which I create between tables.



Pack\_details [SKU Code] ----> All\_Transactions [SKU Code]      One to Many

All\_Customer\_Base[Customer Code] ----> All\_Transactions[Customer Code]      Many to Many

### 3-Add column to calculate profit



The screenshot shows a Power BI interface with a DAX formula bar at the top: `Total Profit = [Quantity] * CALCULATE(VALUE(Pack_details[Margin]))`. Below the formula bar is a table with the following columns: Customer Code, SKU Code, Quantity, Ordering Date, Delivery Date, Days For Delivery, Day, Month, Year, Calendar Day, and Total Profit. The table contains 15 rows of data, all from March 2014, showing various SKUs and their corresponding profit values.

Customer Code	SKU Code	Quantity	Ordering Date	Delivery Date	Days For Delivery	Day	Month	Year	Calendar Day	Total Profit
Cs 583	Core 5 35	3	03/08/2014 12:00:00	03/09/2014 08:27:07	1.85216798699546	_B	March	2014	Saturday	21
Cs 588	Core 5 40	3	03/08/2014 12:07:12	03/09/2014 08:34:29	1.85216693449183	_B	March	2014	Saturday	21
Cs 592	Core 5 44	3	03/08/2014 12:12:57	03/09/2014 08:40:04	1.85216609248891	_B	March	2014	Saturday	11.25
Cs 597	FM 2	3	03/08/2014 12:20:05	03/09/2014 08:47:16	1.85216503998527	_B	March	2014	Saturday	39
Cs 599	P5 5	3	03/08/2014 12:23:02	03/09/2014 08:50:09	1.85216461898381	_B	March	2014	Saturday	7.5
Cs 604	W 2	3	03/08/2014 12:30:14	03/09/2014 08:57:21	1.85216356648016	_B	March	2014	Saturday	12
Cs 608	Core 5 27	3	03/08/2014 12:36:00	03/09/2014 09:03:06	1.85216272447724	_B	March	2014	Saturday	12.75
Cs 611	Core 5 30	3	03/08/2014 12:40:19	03/09/2014 09:07:25	1.85216209297505	_B	March	2014	Saturday	45
Cs 616	Core 5 35	3	03/08/2014 12:47:31	03/09/2014 09:14:37	1.8521610404714	_B	March	2014	Saturday	21
Cs 618	Core 5 37	3	03/08/2014 12:50:24	03/09/2014 09:17:30	1.85216061946994	_B	March	2014	Saturday	21
Cs 623	Core 5 42	3	03/08/2014 12:57:36	03/09/2014 09:24:42	1.8521596696629	_B	March	2014	Saturday	11.25
Cs 627	P5 2	3	03/08/2014 01:03:21	03/09/2014 09:30:27	1.85215872486337	_B	March	2014	Saturday	39

And the dax query is

Total Profit = [Quantity] \* CALCULATE(VALUE(Pack\_details[Margin]))

Which we can calculate the profit margin of every transaction by multiply the quantity which the customer order with the margin of it with the relations between SKU Code of the two tables

I review random cells to make sure that the result is right.

### 4-Sequence of slides

The Following is the dashboards which I create:

Overview Of Last 10 Years

Regions Profits

Regions Profits Day By Day

Packs Profits

Packs Profits Day By Day

Customer Profits

Customer Profits Day By Day

Customer Base Profits

Customer Base Profits Day by Day

Day By Day Insights

Discount Insights

## Discount Insights Day By Day

The day by Day Dashboards I add Date Filter By year ,month and day

### 5-Extra Insights

I tried not to answer the questions only but there is extra insights and charts as calculate profits by

--Regions

--customer base

--make insights for all 9 years

--make insights for every day in the last years

### Answer the question

- What are the most profitable packs? And why?



And we can check the daily profit in the packs profit day by day

- What are the products we should focus on to try and sell more of them to increase the profit?





- Who are the best RSMs, USMs, and reps (Whom shall we keep and whom shall we let go) in light of their current performance? What fair metric can we use to do this evaluation? And why?



You can check daily profit in the next slides

- What is the average cooler door profitability? Does it differ between customers who have 1 door vs 2 doors vs 3 doors? Who are the customers that we should reduce/increase their number of cooler doors?



- What is the average time to deliver products? Does it differ by depot? Did it improve over time?



- Who are the most profitable customers? What are the characteristics of a profitable customer?



- Can we project volume for 2021?





- Does discount influence customer sales?

