

IKEA Customer Retention Analytics Dashboard

Task 1

File Home Transform Add Column View Tools Help

Close & Apply New Source Recent Enter Data Data source settings Manage Parameters Export query results Refresh Preview Advanced Editor Choose Columns Remove Columns Keep Rows Remove Rows Split Column Group By Data Type: Text Merge Queries Append Queries Combine Files Combine

Queries [6] Store_Locations Loyalty_Program Customer_Transactions Customer_Demographics Churn_Labelled_Custom... Duration_Days

Table.TransformColumnTypes(#"Promoted Headers",{"Store_ID", type text}, {"City", type text}, {"Region", type text},

	Store_ID	City	Region	Store_Type	Opening_Year
	Valid 100%	Valid 100%	Valid 100%	Valid 100%	Valid 100%
	Error 0%	Error 0%	Error 0%	Error 0%	Error 0%
	Empty 0%	Empty 0%	Empty 0%	Empty 0%	Empty 0%
1	S101	Birmingham	London	Superstore	2021
2	S102	Leeds	London	Express	2020
3	S103	Birmingham	London	Express	2020
4	S104	Manchester	Leeds	Superstore	2010
5	S105	London	Birmingham	Express	2022
6	S106	Manchester	Manchester	Express	2010
7	S107	Manchester	London	Express	2019
8	S108	Leeds	Birmingham	Express	2018
9	S109	London	Birmingham	Superstore	2016
10	S110	London	Manchester	Superstore	2010

Query Settings

PROPERTIES

Name

Store_Locations

APPLIED STEPS

Source

Promoted Headers

Changed Type

File Home Transform Add Column View Tools Help

Close & Apply New Source Recent Enter Data Data source settings Manage Parameters Export query results Refresh Preview Advanced Editor Choose Columns Remove Columns Keep Rows Remove Rows Split Column Group By Data Type: Text Merge Queries Append Queries Combine Files Combine

Queries [6] Store_Locations Loyalty_Program Customer_Transactions Customer_Demographics Churn_Labelled_Custom... Duration_Days

Table.TransformColumnTypes(#"Promoted Headers",{"Customer_ID", type text}, {"Loyalty_Tier", type text},

	Customer_ID	Loyalty_Tier	Points_Earned	Points_Redeemed	Last_Redemption_Date
	Valid 100%	Valid 100%	Valid 100%	Valid 100%	Valid 100%
	Error 0%	Error 0%	Error 0%	Error 0%	Error 0%
	Empty 0%	Empty 0%	Empty 0%	Empty 0%	Empty 0%
1	C1000	Platinum	2209	820	9/2/2024
2	C1001	Silver	6153	2821	3/28/2025
3	C1002	Silver	5898	1055	4/10/2025
4	C1003	Platinum	3178	5439	1/5/2025
5	C1004	Gold	8610	5932	1/31/2025
6	C1005	Platinum	9895	1886	11/10/2024
7	C1006	Silver	3544	5263	11/3/2024
8	C1007	Silver	6522	3547	1/8/2025
9	C1008	Silver	3370	2927	8/30/2024
10	C1009	Silver	4281	7354	8/30/2024
11	C1010	Gold	5710	6538	9/17/2024
12	C1011	Gold	1328	2504	2/11/2025
13	C1012	Silver	6579	2430	11/3/2024
14	C1013	Gold	5228	5341	6/1/2025
15	C1014	Gold	7794	5270	7/10/2024
16	C1015	Gold	1120	2663	8/25/2024
17	C1016	Silver	7749	7248	8/15/2024

Query Settings

PROPERTIES

Name

Loyalty_Program

APPLIED STEPS

Source

Promoted Headers

Changed Type

Transaction_ID	Customer_ID	Transaction_Date	Store_ID	Product_Category	Amount
T20000	C1011	11/11/2024	S106	Bakery	
T20001	C1079	5/26/2025	S105	Beverages	
T20002	C1215	8/9/2024	S101	Beverages	
T20003	C1263	8/26/2024	S108	Beverages	
T20004	C1148	1/2/2025	S103	Electronics	
T20005	C1080	7/5/2024	S106	Grocery	
T20006	C1214	1/25/2025	S103	Bakery	
T20007	C1197	9/27/2024	S107	Electronics	
T20008	C1199	6/7/2025	S107	Clothing	
T20009	C1024	6/9/2025	S109	Bakery	
T20010	C1088	3/17/2025	S105	Bakery	
T20011	C1267	6/28/2024	S108	Bakery	
T20012	C1142	8/15/2024	S110	Beverages	
T20013	C1058	5/31/2025	S110	Bakery	
T20014	C1025	4/28/2025	S108	Grocery	
T20015	C1046	8/23/2024	S101	Bakery	
T20016	C1287	12/21/2024	S105	Beverages	
T20017	C1265	7/29/2024	S103	Bakery	

Customer_ID	Gender	Age	Membership_Since	Marital_Status	Region
C1000	Male	50	11/1/2020	Single	London
C1001	Female	18	7/5/2021	Divorced	London
C1002	Male	36	8/18/2021	Single	Birmingham
C1003	Male	19	2/1/2024	Married	Leeds
C1004	Male	70	10/15/2020	Married	Leeds
C1005	Female	61	11/19/2020	Single	Liverpool
C1006	Male	43	7/13/2021	Divorced	London
C1007	Male	49	3/16/2023	Married	London
C1008	Male	23	6/14/2022	Married	Manchester
C1009	Female	49	6/6/2024	Married	Liverpool
C1010	Male	21	5/3/2023	Single	Manchester
C1011	Male	28	7/7/2021	Married	Manchester
C1012	Male	34	2/27/2023	Divorced	Manchester
C1013	Male	55	4/27/2023	Married	Birmingham
C1014	Female	41	1/20/2024	Married	Birmingham
C1015	Male	22	11/15/2023	Divorced	Manchester
C1016	Female	69	5/18/2023	Married	Liverpool
C1017	Female	51	7/11/2023	Single	London

Close & Apply	New Source	Recent Sources	Enter Data	Data source settings	Manage Parameters	Export query results	Refresh Preview	Properties Advanced Editor	Choose Columns	Remove Columns	Keep Rows	Remove Rows	Split Column	Group By	Data Type: Text	Use First Row as	Replace Values
Close	New Query			Data Sources	Parameters	Output Data	Query	Manage	Manage Columns	Reduce Rows	Sort	Transform					

Queries [6]

Store_Locations

Loyalty_Program

Customer_Transactions

Customer_Demographics

Churn_Labelled_Custom...

Duration_Days

Table.TransformColumnTypes("#Promoted Headers",{"Customer_ID", type text}, {"Last_Transaction_Date",

	Customer_ID	Last_Transaction_Date	Churned (Yes/No)	Days_Since_Last_Purchase
	Valid 100%	Valid 100%	Valid 100%	Valid 100%
	Error 0%	Error 0%	Error 0%	Error 0%
	Empty 0%	Empty 0%	Empty 0%	Empty 0%
1	C1000	5/19/2025	No	37
2	C1001	5/26/2025	No	30
3	C1002	12/28/2024	No	179
4	C1003	8/14/2024	Yes	315
5	C1004	6/21/2025	No	4
6	C1005	10/30/2024	Yes	238
7	C1006	8/18/2024	Yes	311
8	C1007	5/24/2025	No	32
9	C1008	11/30/2024	Yes	207
10	C1009	9/3/2024	Yes	295
11	C1010	5/9/2025	No	47
12	C1011	4/29/2025	No	57
13	C1012	12/12/2024	Yes	195
14	C1013	2/7/2025	No	138
15	C1014	8/8/2024	Yes	321
16	C1015	6/10/2025	No	15
17	C1016	4/14/2025	No	72
18	C1017	3/6/2025	No	111
19	C1018	4/3/2025	No	83

Apply	Source	Sources	Data	settings	Parameters	results	Preview	Columns	Columns	Rows	Rows	Column	by	Combine
Close	New Query			Data Sources	Parameters	Output Data	Query	Manage Columns	Reduce Rows	Sort	Transform			

Queries [6]

Store_Locations

Loyalty_Program

Customer_Transactions

Customer_Demographics

Churn_Labelled_Custom...

Duration_Days

Table.RemoveColumns("#Changed Type3",{"Duration_Days"})

	Customer_ID	Gender	Age	Membership_Since	Marital_Status	Region
	Valid 100%	Valid 100%	Valid 100%	Valid 100%	Valid 100%	Valid 100%
	Error 0%	Error 0%	Error 0%	Error 0%	Error 0%	Error 0%
	Empty 0%	Empty 0%	Empty 0%	Empty 0%	Empty 0%	Empty 0%
1	C1000	Male	50	11/1/2020	Single	London
2	C1001	Female	18	7/5/2021	Divorced	London
3	C1002	Male	36	8/18/2021	Single	Birmingham
4	C1003	Male	19	2/1/2024	Married	Leeds
5	C1004	Male	70	10/15/2020	Married	Leeds
6	C1005	Female	61	11/19/2020	Single	Liverpool
7	C1006	Male	43	7/13/2021	Divorced	London
8	C1007	Male	49	3/16/2023	Married	London
9	C1008	Male	23	6/14/2022	Married	Manchester
10	C1009	Female	49	6/6/2024	Married	Liverpool
11	C1010	Male	21	5/3/2023	Single	Manchester
12	C1011	Male	28	7/7/2021	Married	Manchester
13	C1012	Male	34	2/27/2023	Divorced	Manchester
14	C1013	Male	55	4/27/2023	Married	Birmingham
15	C1014	Female	41	1/20/2024	Married	Birmingham
16	C1015	Male	22	11/15/2023	Divorced	Manchester
17	C1016	Female	69	5/18/2023	Married	Liverpool
18	C1017	Female	51	7/11/2023	Single	London
19						

Query Settings

PROPERTIES

Name

Duration_Days

All Properties

APPLIED STEPS

Source

Promoted He

Changed Typ

Added Custo

Changed Typ

Removed Col

Added Custo

Removed Col

Changed Typ

Added Custo

Renamed Col

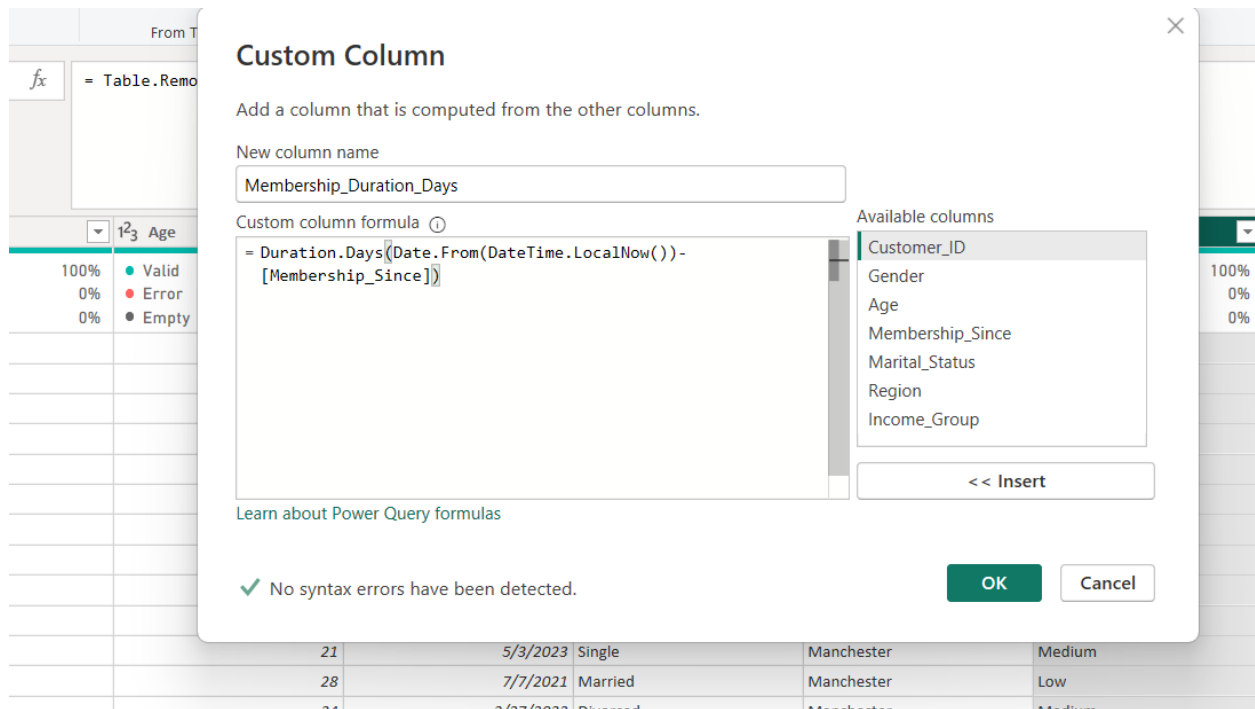
Added Custo

Removed Col

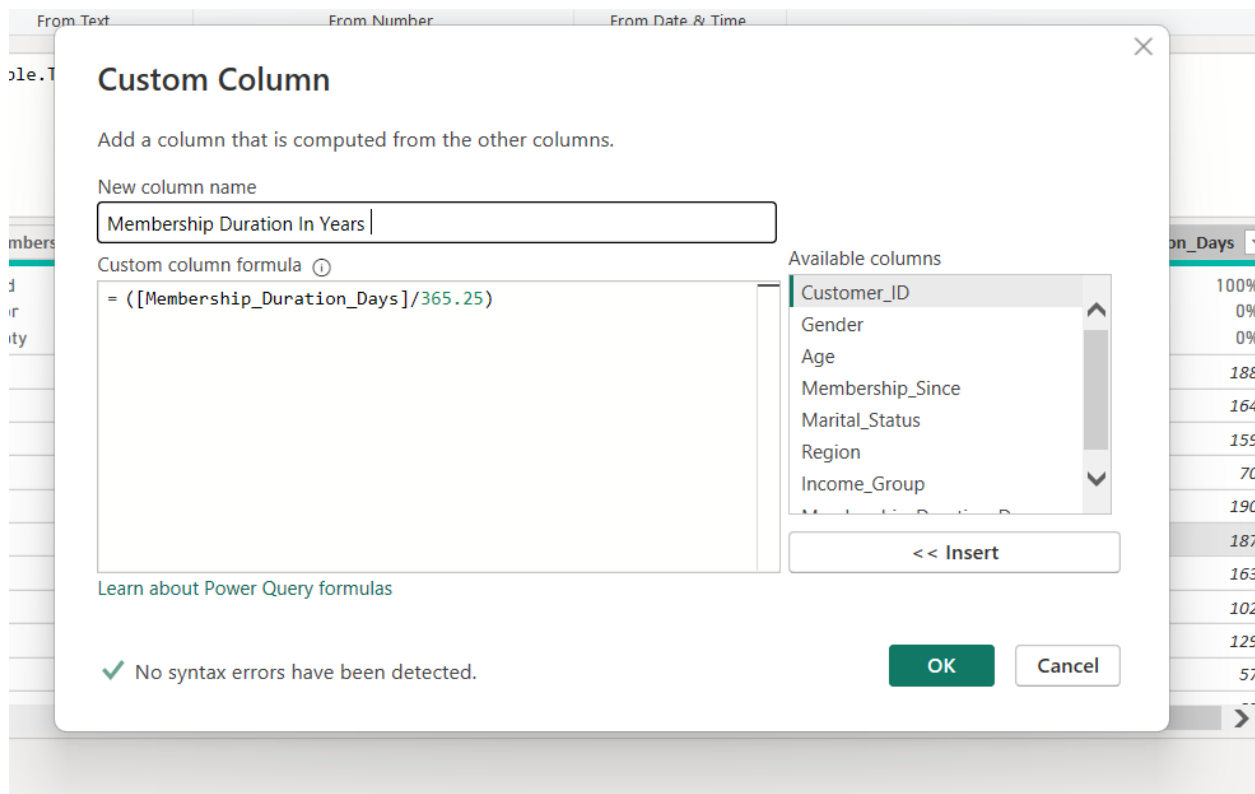
Changed Typ

Removed Col

Data Cleaning is completed moving on to custom column making



Created a calculated column for Membership duration in days



Created a calculated column for membership duration in years

Query Settings

4 PROPERTIES

Name
Customer_Trans

All Properties

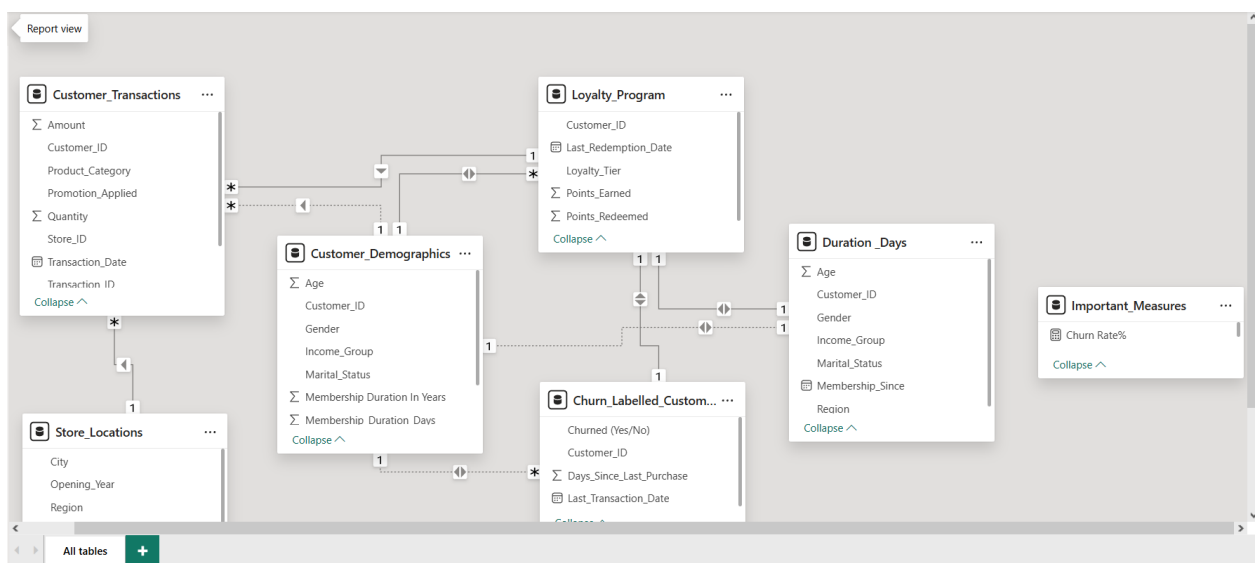
4 APPLIED STEPS

Source
Promoted H
Changed Ty
Added Cust
Changed Ty
Added Cust
Changed Ty

fx = Table.TransformColumnTypes(#"Added Custom1",{{"Transaction_Month ", type text}})

Product_Category	1.2 Amount	1.2 Quantity	1.2 Promotion_Applied	1.2 Transaction_Year	1.2 Transaction_Month
	100% 0% 0%	Valid Error Empty	100% 0% 0%	Valid Error Empty	100% 0% 0%
1		249.6	7 Yes	2024	November
2		431.22	6 Yes	2025	May
3		233.28	7 No	2024	August
4		470.27	8 No	2024	August
5		254.48	6 Yes	2025	January
6		474.85	3 No	2024	July
7		417.25	2 Yes	2025	January
8		184.4	7 Yes	2024	September
9		432.5	1 No	2025	June
10		59.48	3 Yes	2025	June
11		462.9	4 No	2025	March
12		317.66	1 No	2024	June
13		31.92	5 No	2024	August
14		323.91	10 Yes	2025	May
15		487.25	3 No	2025	April
16		39.55	2 Yes	2024	August

Created a calculated column for transaction year and month



Relationship created

Task 2

Measure name: <input type="text" value="Total Customers"/>	Format: <input type="text" value="Whole number"/>	Data category: <input type="text" value="Uncategorized"/>
Measure type: <input type="text" value="Important_Measures"/>	Decimal places: <input type="text" value="0"/>	
Structure	Formatting	Properties

☒ ☐

```
1 Total Customers =  
2 DISTINCTCOUNT(Customer_Demographics[Customer_ID])
```

Created measure for total customers

Structure	Formatting	Properties
-----------	------------	------------

☒ ☐

```
1 Churned Customer = CALCULATE(  
2     DISTINCTCOUNT(Churn_Labelled_Customers[Customer_ID]),  
3     Churn_Labelled_Customers[Churned (Yes/No)] = "Yes")
```

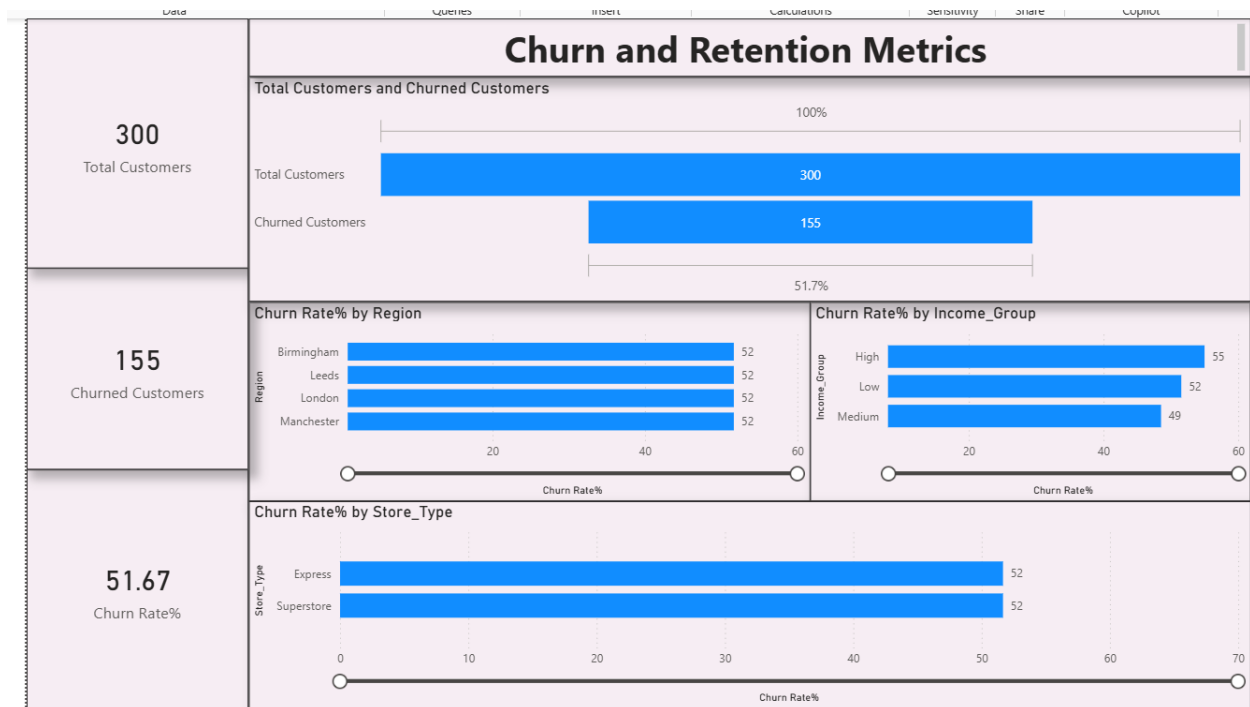
Created Measure for Churned Customer

Structure	Formatting	Properties
-----------	------------	------------

☒ ☐

```
1 Churn Rate% = DIVIDE([Churned Customer],[Total Customers])*100
```

Created Measure for Churn Rate%



Churn And Retention Metrics

Task 3

Important_Measures ▾ \$ ▾ % , → 0 ▾

Structure Formatting Properties

1 Purchase Count =COUNT(Customer_Transactions[Transaction_ID])

Created a Measure for Purchase Count

```
1 Retention rate = DIVIDE([Total Customers]-[Churned Customers],[Total Customers])*100
```

Created Measure for retention rate

```
1 Repeated Customers =  
2 CALCULATE(  
3     DISTINCTCOUNT(Customer_Transactions[Customer_ID]),  
4     FILTER(VALUES(Customer_Transactions[Customer_ID]),[Purchase Count]>=2))
```

Created measure for repeated customers

```
1 Repeat Rate = DIVIDE([Repeated Customers],[Total Customers])*100
```

Created measure for repeat rate

Important Measures		Formatting		Properties	New measure	Quick measure
Structure		Auto			Calculations	
1	Customer Tier =					
2	SWITCH(TRUE(), [Purchase Count] >= 11, "High-Tier", [Purchase Count] >= 5, "Mid-Tier", [Purchase Count] >= 2, "Low-Tier", "One-Time")					

Created a Measure for Customer Tier

Customer_Retention_Analytics_Dashboard

Transform Add Column View Tools Help

Invoke Custom Function General

Conditional Column Index Column Duplicate Column

Format Merge Columns

Statistics Standard Scientific

Trigonometry Rounding Information

Date Time Duration

From Text From Number From Date & Time

fx = Table.AddColumn(#"Changed Type4", "Age_Group", each if [Age] <= 30 then "Young" else if [Age] <= 50 then "Middle" else

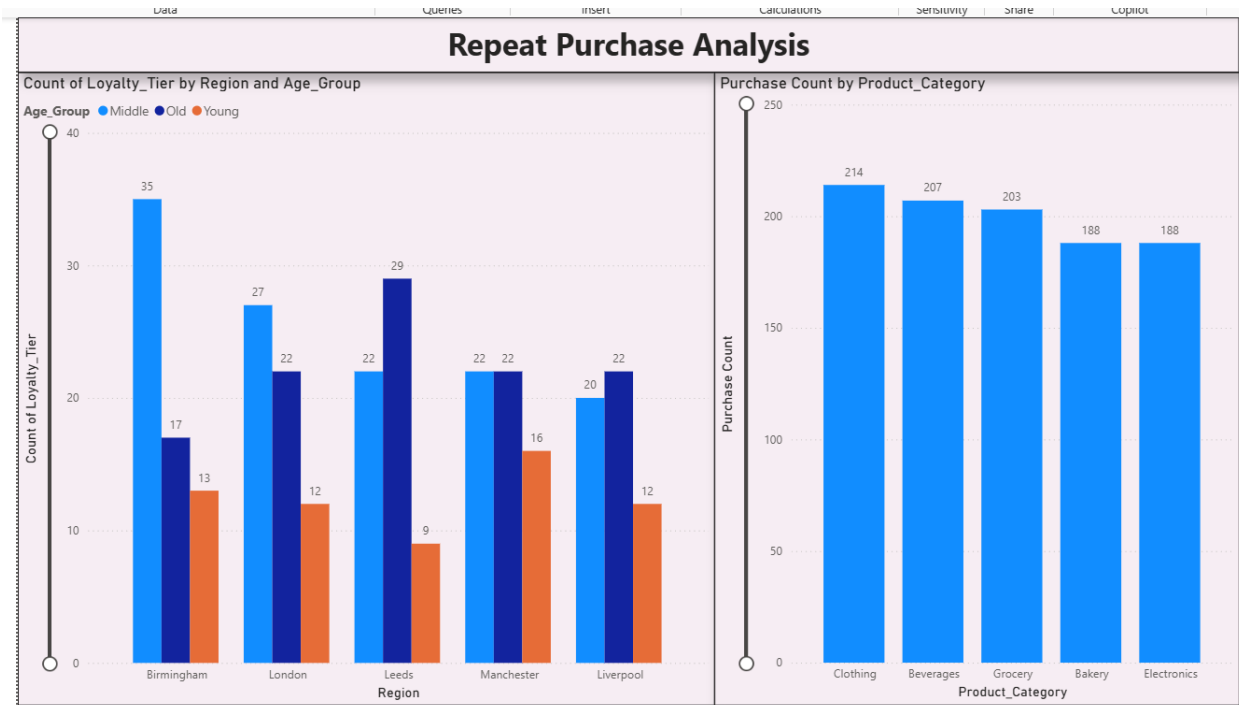
	Region	Income_Group	Membership_Duration_Days	Membership_Duration_In_Years	Age_Group
1	London	High	1890	5.174537988	Middle
2	London	Medium	1644	4.501026694	Young
3	Birmingham	Medium	1600	4.380561259	Middle
4	Leeds	Medium	703	1.924709103	Young
5	Leeds	Medium	1907	5.221081451	Old
6	Liverpool	High	1872	5.125256674	Old
7	London	High	1636	4.479123888	Middle
8	London	Medium	1025	2.806297057	Middle
9	Manchester	Medium	1300	3.559206023	Young
10	Liverpool	High	577	1.579739904	Middle
11	Manchester	Medium	977	2.674880219	Young
12	Manchester	Low	1642	4.495550992	Young
13	Manchester	Medium	1042	2.85284052	Middle
14	Birmingham	Medium	983	2.691307324	Old
15	Birmingham	Low	715	1.957563313	Middle
16	Manchester	Low	781	2.138261465	Young
17	Liverpool	High	962	2.633812457	Old
18	London	High	908	2.485968515	Old
19	Liverpool	Low	654	1.790554415	Young
20	Leeds	Low	942	2.579055441	Middle

Column profiling based on top 1000 rows

11/5/2024 Yes 232

Created a custom column of Age Group in power query editor where

1. Age - 0 to 30 (Young)
2. Age – 31 to 50 (Middle)
3. Age – 51 above (Old)



Created visualization of Repeat purchase analysis

Task 4

```

1 Promotion % =
2 DIVIDE(
3     CALCULATE(COUNT(Customer_Transactions[Transaction_ID]),Customer_Transactions[Promotion_Applied]="Yes"),
4     COUNT(Customer_Transactions[Transaction_ID]))
  
```

Calculated the measure of Promotion Percentage

```

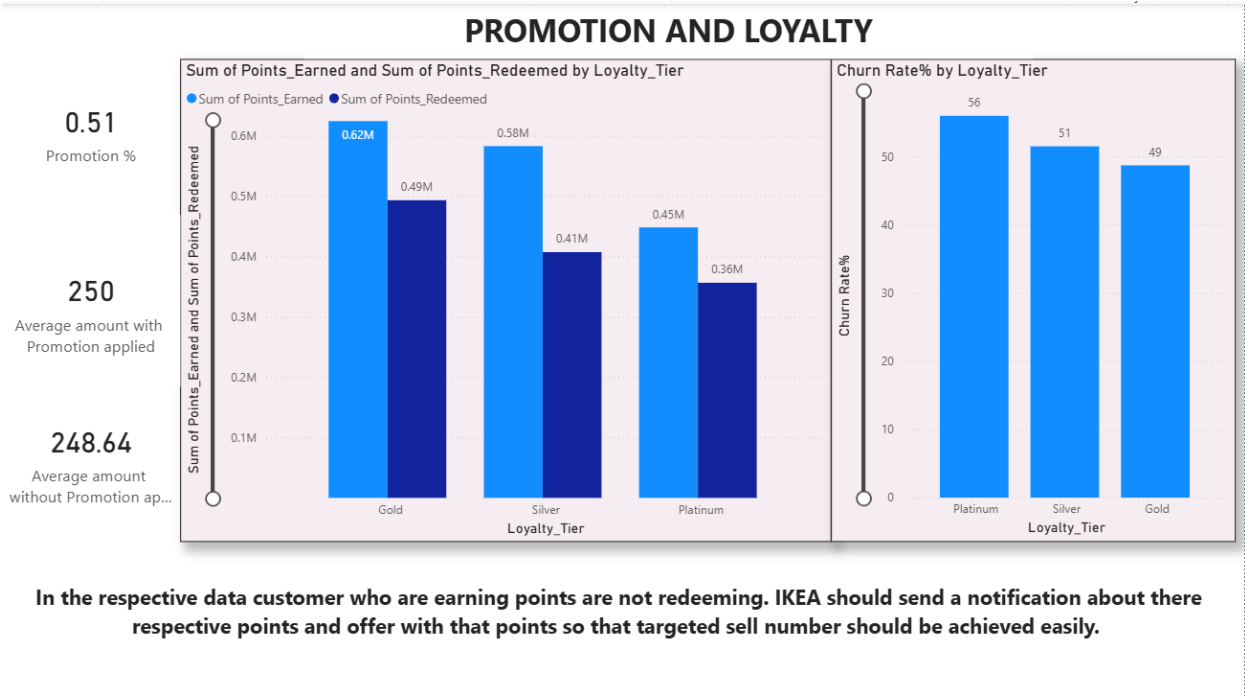
1 Average amount with Promotion applied = CALCULATE(AVERAGE(Customer_Transactions[Amount]),
2     Customer_Transactions[Promotion_Applied]="Yes")
  
```

Calculated the measure of Average amount with promotion applied

```

1 Average amount without Promotion applied = CALCULATE(AVERAGE(Customer_Transactions[Amount])
2     ,Customer_Transactions[Promotion_Applied]="No")
  
```

Calculated the measure of Average amount without promotion applied



Created clustered column chart for sum of points earned and redeemed by loyalty tier, and created a column chart for churn rates by loyalty Tier.

Recommendation: -

In the respective data customer who are earning points are not redeeming. IKEA should send a notification about there respective points and offer with that points so that targeted sell number should be achieved easily.

Task 5

```

structure      Formatting
1 Churned Customers =
2 CALCULATE(
3     DISTINCTCOUNT(Churn_Labelled_Customers[Customer_ID]),
4     Churn_Labelled_Customers[Churned (Yes/No)] = "Yes"
5 )
6

```

Calculated churned customers

```

structure      Formatting      Properties
1 Churn Rate% = DIVIDE([Churned Customers],[Total Customers])*100

```

Calculated churn rate%



Created a report for store performance vs retention

Task 6

```

1 CLV = DIVIDE([Total spend],AVERAGE(Customer_Demographics[Membership Duration In Years ]))

```

Calculated CLV using divide dax function

```

1 CLV Segment =
2 SWITCH(
3     TRUE(),
4     Customer_Demographics[CLV Rank] <= Customer_Demographics[Total Customers] * 0.25, "Low",
5     Customer_Demographics[CLV Rank] <= Customer_Demographics[Total Customers] * 0.75, "Medium",
6     "High")

```

al_Status ▼ Region ▼ Income_Group ▼ Membership_Duration_Days ▼ Membership_Duration In Years ▼ Age

Using calculated column done CLV Segment

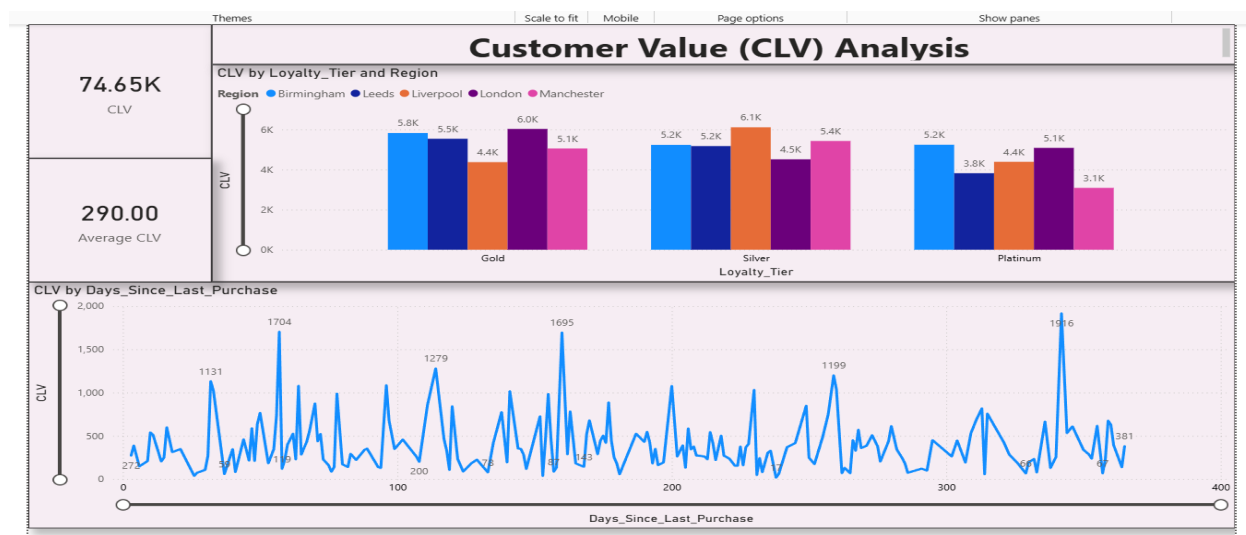
```

1 CLV Rank =
2 RANKX(
3     ALL(Customer_Demographics),
4     Customer_Demographics[CLV],,ASC)

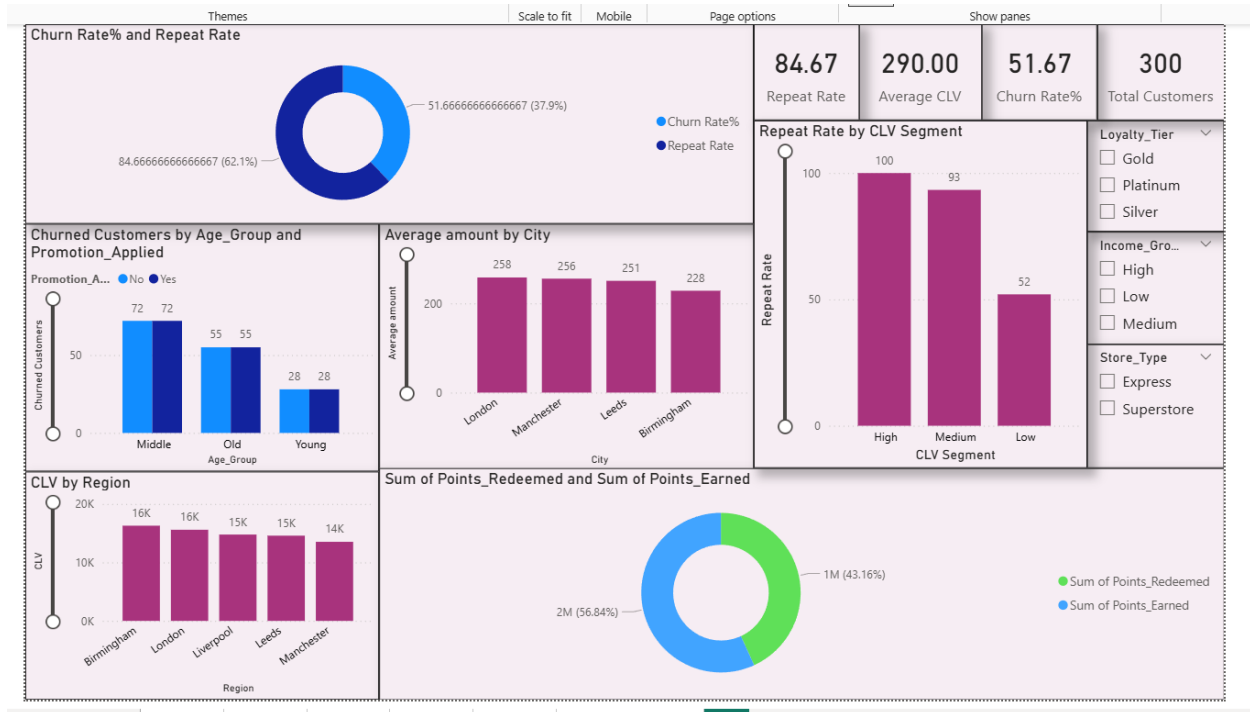
```

_Status ▼ Region ▼ Income_Group ▼ Membe

Calculated rank of CLV so that I can divide them to low , middle and high rank



Task 7



Made a final dashboard and added a slicer for better understanding of visuals.

Recording Link:- <https://www.loom.com/share/befd2026e1cd4d0bb6ce8424d5d9b214>

Please listen my recording in 0.8x as due to glitch my video is playing in 2x.