

DAY 1

Takeaways

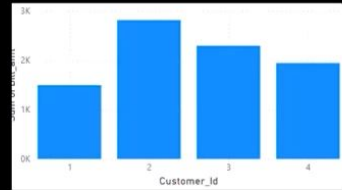
- **Power BI** is a user-friendly tool for creating interactive data visualizations, offering seamless integration, real-time insights, and strong data connectivity.
- **Power BI** offers a wide range of career opportunities, as its demand spans across industries for roles such as data analysts, business intelligence developers, and data visualization specialists.

Takeaways

- Power BI has options to work in **multiple layouts**.
- Power BI provides an option to connect with **multiple data sources**.
- **Report View** is the area to **create visuals**.
- **Table View** helps one to **check and modify the tables**.
- **Model View** helps one to **create the data model**

Power Query

- * Sort
- * Handle null
- * Add columns
- * Change datatype



Takeaways

- **Filtering, Sorting, Replacing Values, and changing data types** are the most commonly used operations.
- You can **add a new column** to a table based on existing column(s).

Power Query Operations



Column
Transformations



Table
Transformations

Column Transformations



Filtering,
Sorting,
Replacing
Values etc.



Adding New
Columns

Table Transformations – Combining Tables



Merge



Append

Takeaways

- **Name the query steps appropriately** to make it more readable & collaborative.
- **Disable load for the supporting tables** which are not used in the report.

DAX

Data Analysis Expression

region market customer

All All All

2019 2020 2021 2022 Est Q1 Q2 Q3 Q4 YTD YTG

80.21%

-752K

10M

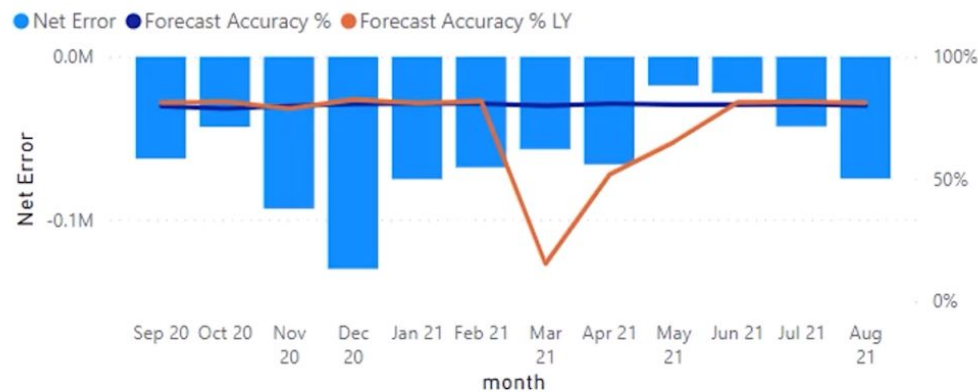
Forecast Accur...

Net Error

ABS Error

customer	Forecast Accuracy %	Forecast Accuracy % LY	Net Error	Net Error %	Risk
Leader	24.45%	31.01%	-461507	-42.1%	Out of Stock
Sage	33.58%	35.92%	-425909	-33.7%	Out of Stock
Novus	25.28%	36.59%	-229091	-38.2%	Out of Stock
AltiQ Exclusive	71.15%	56.78%	-191800	-5.7%	Out of Stock
Amazon	74.54%	48.43%	-155116	-2.3%	Out of Stock
Synthetic	37.93%	38.32%	-145604	-18.6%	Out of Stock
Acclaimed Stores	50.69%	8.69%	-122555	-16.2%	Out of Stock
Atliq e Store	74.59%	55.24%	-94643	-2.3%	Out of Stock
Flipkart	52.59%	11.82%	-91770	-5.8%	Out of Stock
Circuit City	35.02%	9.90%	-84752	-19.0%	Out of Stock
BestBuy	35.31%	7.31%	-73279	-17.0%	Out of Stock
Digimarket	40.79%	39.69%	-72129	-23.2%	Out of Stock
Control	47.42%	30.41%	-64707	-12.0%	Out of Stock
Path	45.53%	9.55%	-59454	-10.6%	Out of Stock
Insight	26.88%	37.11%	-50505	-34.7%	Out of Stock
Ebay	50.49%	18.21%	-49299	-4.2%	Out of Stock
Radio Shack	38.46%	7.10%	-47096	-11.2%	Out of Stock
Currys (Dixons Carphone)	35.92%	35.91%	-44680	-35.5%	Out of Stock
Elkjøp	53.55%	45.00%	-39201	-10.9%	Out of Stock
Billa	18.29%	26.05%	-37856	-47.1%	Out of Stock
Netbillig	18.87%	20.12%	-26728	-15.8%	Out of Stock
Total	80.21%	72.99%	-751714	-1.5%	Out of Stock

Net Error, Forecast Accuracy % and Forecast Accuracy % LY by month



segment	Forecast Accuracy %	Forecast Accuracy % LY
Accessories	77.66%	71.42%
Desktop	84.37%	70.07%
Networking	90.40%	52.50%
Notebook	79.99%	76.65%
Peripherals	83.23%	75.18%
Storage	83.54%	81.01%
Total	80.21%	72.99%

✕

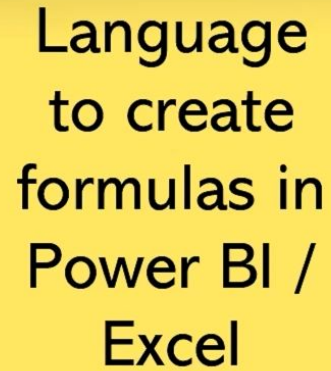
✓

OrderID	OrderDate	Customer_Id	HotelName	FoodItem	Quantity	Price	Bill_amt	Deliveryguy_Id	Delive
20	Oct 06	1	Spice Paradise	Chana Masala	2	249	498	3	Deliver
18	Oct 05	3	Pizza Palace	Margherita Pizza	1	399	399	1	Deliver
19	Oct 05	2	Spice Paradise	Chicken Biryani	2	250	500	2	Cancel
17	Oct 04	3	Burger Bistro	Double Cheeseburger	1	499	499	1	In Prog
16	Oct 04	2	Spice Paradise	Paneer Tikka	1	200	200	3	In Prog
15	Oct 04	4	Pizza Palace	Margherita Pizza	1	399	399	3	Deliver
14	Oct 04	2	not available	Chicken Biryani	2	250	500	2	Deliver
13	Oct 04	1	Spice Paradise	Paneer Tikka	1	200	200	3	Deliver
12	Oct 03	4	Spice Paradise	Chicken Biryani	2	250	500	1	Cancel
11	Oct 03	2	Burger Bistro	Veggie Burger	2	159	318	3	Deliver
10	Oct 03	3	Pizza Palace	Hawaiian Pizza	1	299	299	3	Deliver
9	Oct 03	3	Pizza Palace	Hawaiian Pizza	1	299	299	1	Deliver
8	Oct 02	1	Pizza Palace	Pepperoni Pizzza	1	300	300	1	In Prog
7	Oct 02	3	not available	Chicken Biryani	2	250	500	1	Deliver
5	Oct 02	4	Burger Bistro	Cheeseburger	3	349	1047	1	Cancel
6	Oct 02	2	Spice Paradise	Chicken Biryani	2	250	500	2	Deliver
2	Oct 01	3	Pizza Palace	Pepperoni Pizzza	1	300	300	1	Deliver
4	Oct 01	1	Burger Bistro	Double Cheeseburger	1	499	499	2	Cancel
3	Oct 01	2	Pizza Palace	Pepperoni Pizza	1	300	300	3	Deliver
1	Oct 01	2	Spice Paradise	Butter Chicken	2	250	500	1	Deliver

Takeaways

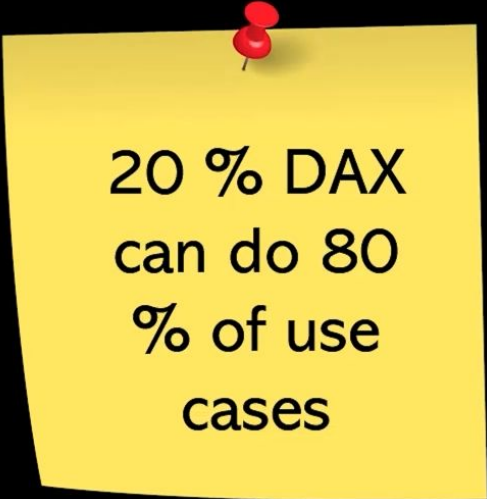
- **DAX** is the language that you need to talk to Power BI to create formulas.
- You can get about 80% use cases done with 20% DAX measures.

What is DAX?



Language
to create
formulas in
Power BI /
Excel

Is DAX difficult?



20 % DAX
can do 80
% of use
cases

Basic Functions



Sum, Count,
Divide



Min, Max

Two types of Output



Measures



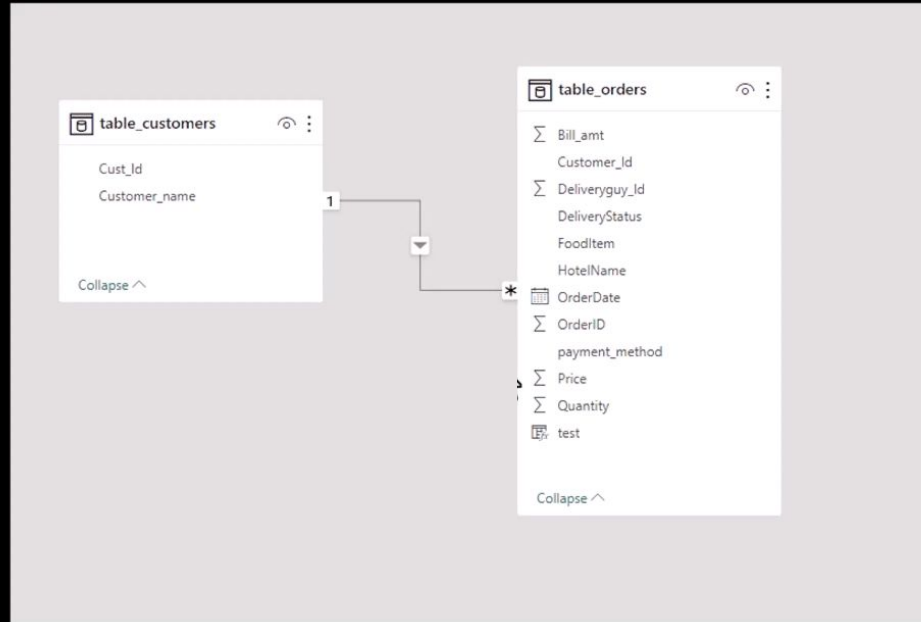
Calculated
Columns

Takeaways

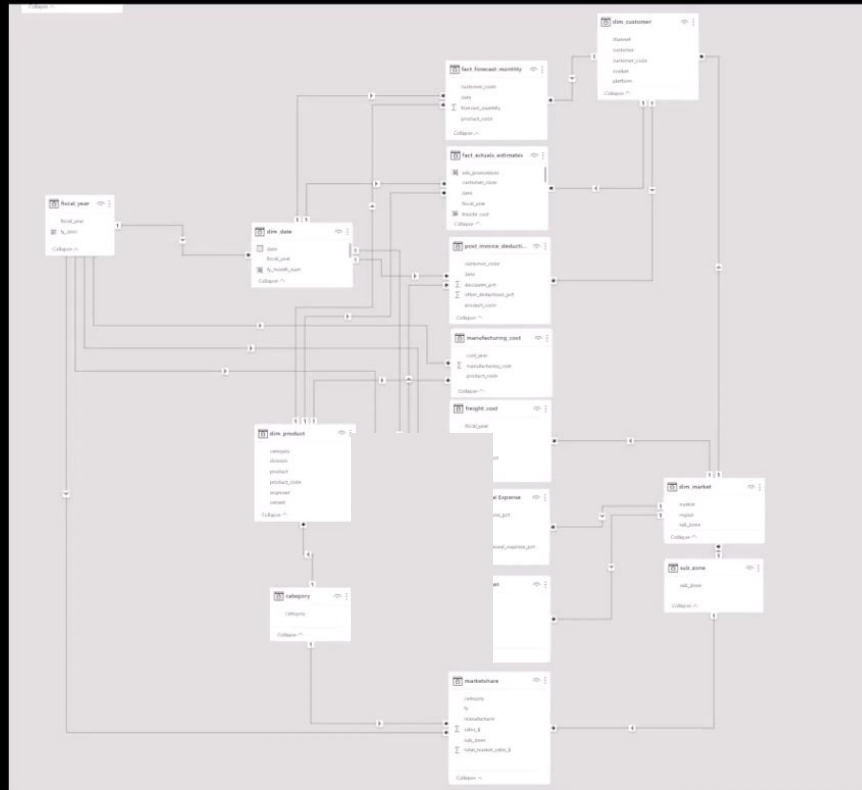
- **DAX** is utilized in both Power BI and Excel.
- DAX is capable of creating both **Measures** and **Calculated Columns**.

Introduction to Data Modeling

What is a Data Model?



What is a Data Model?



Why Data Model?



Why Data Model?



Two Types of Tables



Primary
Table



Fact Table

Primary Table



Contains
Primary Key
/ Unique
Values

Cust_Id ▾	Customer_name ▾	
1	Rajesh Kumar	
2	Preeti Sharma	
3	Anjali Patel	
4	Suresh Gupta	

Fact Table



Contains
transactions
/ repeated
value

OrderID	OrderDate	Customer_Id	HotelName	FoodItem	Quantity	Price	Bill_amt
1	01 October 2023		Spice Paradise	Butter Chicken	2	₹ 250	₹ 500
2	01 October 2023		Pizza Palace	Pepperoni Pizzza	1	₹ 300	₹ 300
3	01 October 2023		Pizza Palace	Pepperoni Pizza	1	₹ 300	₹ 300
4	01 October 2023		Burger Bistro	Double Cheeseburger	1	₹ 499	₹ 499
5	02 October 2023		Burger Bistro	Cheeseburger	3	₹ 349	₹ 1,047
6	02 October 2023		Spice Paradise	Chicken Biryani	2	₹ 250	₹ 500
7	02 October 2023			Chicken Biryani	2	₹ 250	₹ 500
8	02 October 2023		Pizza Palace	Pepperoni Pizzza	1	₹ 300	₹ 300
9	03 October 2023		Pizza Palace	Hawaiian Pizza	1	₹ 299	₹ 299
10	03 October 2023		Pizza Palace	Hawaiian Pizza	1	₹ 299	₹ 299
11	03 October 2023		Burger Bistro	Veggie Burger	2	₹ 159	₹ 318
12	03 October 2023		Spice Paradise	Chicken Biryani	2	₹ 250	₹ 500
13	04 October 2023		Spice Paradise	Paneer Tikka	1	₹ 200	₹ 200
14	04 October 2023			Chicken Biryani	2	₹ 250	₹ 500
15	04 October 2023		Pizza Palace	Margherita Pizza	1	₹ 399	₹ 399
16	04 October 2023		Spice Paradise	Paneer Tikka	1	₹ 200	₹ 200
17	04 October 2023		Burger Bistro	Double Cheeseburger	1	₹ 499	₹ 499
18	05 October 2023		Pizza Palace	Margherita Pizza	1	₹ 399	₹ 399
19	05 October 2023		Spice Paradise	Chicken Biryani	2	₹ 250	₹ 500
20	06 October 2023		Spice Paradise	Chana Masala	2	₹ 249	₹ 498

File

Home

Help



Paste

Copy



Get data



Excel workbook



OneLake data hub



SQL Server



Enter data



Dataverse



Recent sources



Transform data



Refresh

Queries



Manage relationships



New measure



New column



New table

Calculations



Manage roles



View as

Security



Q&A setup



Language



Linguistic schema

Q&A



Sensitivity



Publish

Share



table_orders



Σ Bill_amt

Customer_Id

Customer_name

Σ Deliveryguy_Id

DeliveryStatus

FoodItem

HotelName

in budget?

Calendar OrderDate

Collapse ^



table_customers



Cust_Id

Customer_name

Avg Order Value

Large Order Value

Max Order Value

Collapse ^

Takeaways

- **Data Modelling** is all about creating connections between tables.
- **Primary (Dimension) tables** and **Fact Tables** are two kinds of tables

Top Visuals



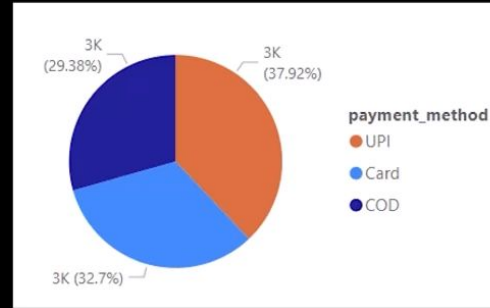
KPI Cards

8,557

Order Value

Top Visuals

Bar Chart /
Pie Chart



Top Visuals



Tables /
Matrix

cut_name	Order Value
Preeti Sharma	2,818
Anjali Patel	2,296
Suresh Gupta	1,946
Rajesh Kumar	1,497
Total	8,557

Takeaways

- **KPI cards, Bar / Pie Charts, Tables / Matrix** and **Slicers** are commonly used visuals.
- One needs to click the visuals to activate the visual settings.
- Use Horizontal bar chart to represent more than 3 categories.