# 30-Day DAX Revision - Day 4 Notes

Date: 24/07/2025

Topic: Logical Functions in DAX

Objective: To perform condition-based evaluations and build decision-driven expressions using logical functions in DAX.

## Logical Functions Practiced

1. IF (Simple Condition) – Return 'Profit' or 'Loss' based on the Profit column:

ProfitFlag = IF('Sample - Superstore'[ProfitRound] > 0, "Profit", "Loss")

2. IF (Multiple Conditions) – Use && for AND, || for OR:

PrioritySegment = IF('Sample - Superstore'[Sales] > 1000 && 'Sample - Superstore'[ProfitRound] > 100, "High Priority", "Normal")

3. IFERROR – Handle errors gracefully (e.g., divide by zero):

SafeDivision = IFERROR('Sample - Superstore'[Sales] / 'Sample - Superstore'[Quantity], 0)

4. Nested IF – Create multiple-tier conditions:

ProfitLevel = IF('Sample - Superstore'[ProfitRound] > 500, "High", IF('Sample - Superstore'[ProfitRound] > 100, "Medium", "Low"))

5. SWITCH(TRUE()) – Cleaner alternative to nested IF statements:

ProfitCategory = SWITCH(TRUE(),

'Sample - Superstore'[ProfitRound] <= 0, "Loss",

'Sample - Superstore'[ProfitRound] <= 100, "Low",

'Sample - Superstore'[ProfitRound] <= 500, "Medium",

"High")

6. Combine with FORMAT or CONCATENATE – Display dynamic messages:

FlagMsg = IF('Sample - Superstore'[ProfitRound] < 0,

"Loss of Rupee " & FORMAT(ABS('Sample - Superstore'[ProfitRound]), "0.00"),

"In Profit")

## Key Note

Logical functions are evaluated row by row in calculated columns – this is known as row context.