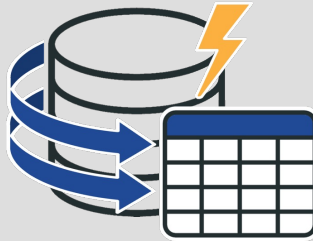


Data Transformation & Cleaning

with

2

Power Query



Cross Table vs Flat Table



FLAT TABLE



Field 1 (ID)	Field 2	Field 3	Field 4
Value	Value	Value	Value
Value	Value	Value	Value
Value	Value	Value	Value
Value	Value	Value	Value
Value	Value	Value	Value
Value	Value	Value	Value

CROSS TABLE

	Col Header	Col Header	Col Header
Row Header	Value	Value	Value
Row Header	Value	Value	Value
Row Header	Value	Value	Value
Row Header	Value	Value	Value
Row Header	Value	Value	Value
Row Header	Value	Value	Value



FLAT TABLE

- ✓ Table is comprised of **Fields (Columns)** and **Records (Rows)**
- ✓ Each Field (Column) must have one data type only, it cannot have more than one data type
- ✓ Always use this table to store data and especially when your data has numbers that you want to summarize later (using PivotTable)

CROSS TABLE

- ✓ Table is comprised of Row headers, Column headers, and Values
- ✓ Values represent one data type (usually numbers)
- ✓ Cross table is usually used to display data in a report (using PivotTable off of Flat table)
- ✓ If you must use this table to store data, most likely your data contain text, no summaries required



FLAT TABLE

Home	Destination	Distance
Tripoli	Shahat	1216.8
Tripoli	Sebha	775.8
Tripoli	Gadamis	596.5
Shahat	Tripoli	1223.8
Shahat	Sebha	1367
Shahat	Gadamis	1573.9
Sebha	Tripoli	772.7
Sebha	Shahat	1353.8
Sebha	Gadamis	857.6
Gadamis	Tripoli	596.8
Gadamis	Shahat	1559.3
Gadamis	Sebha	860.8

CROSS TABLE

		Destination			
		Gadamis	Sebha	Shahat	Tripoli
Home	Gadamis	0	860.8	1559.3	596.8
	Sebha	857.6	0	1353.8	772.7
	Shahat	1573.9	1367	0	1224
	Tripoli	596.5	775.8	1216.8	0



Use case to convert

Cross Table to Flat Table



Case Studies four practical case studies demonstrating the application of Power Query.

These case studies include

- Employee expense versus allowance
- Analyst Revenue contribution in a team
- Target versus achievement sales
- Cleaning financial data



Employee expense versus allowance

Find out which salesmen is spending over their fixed allowance

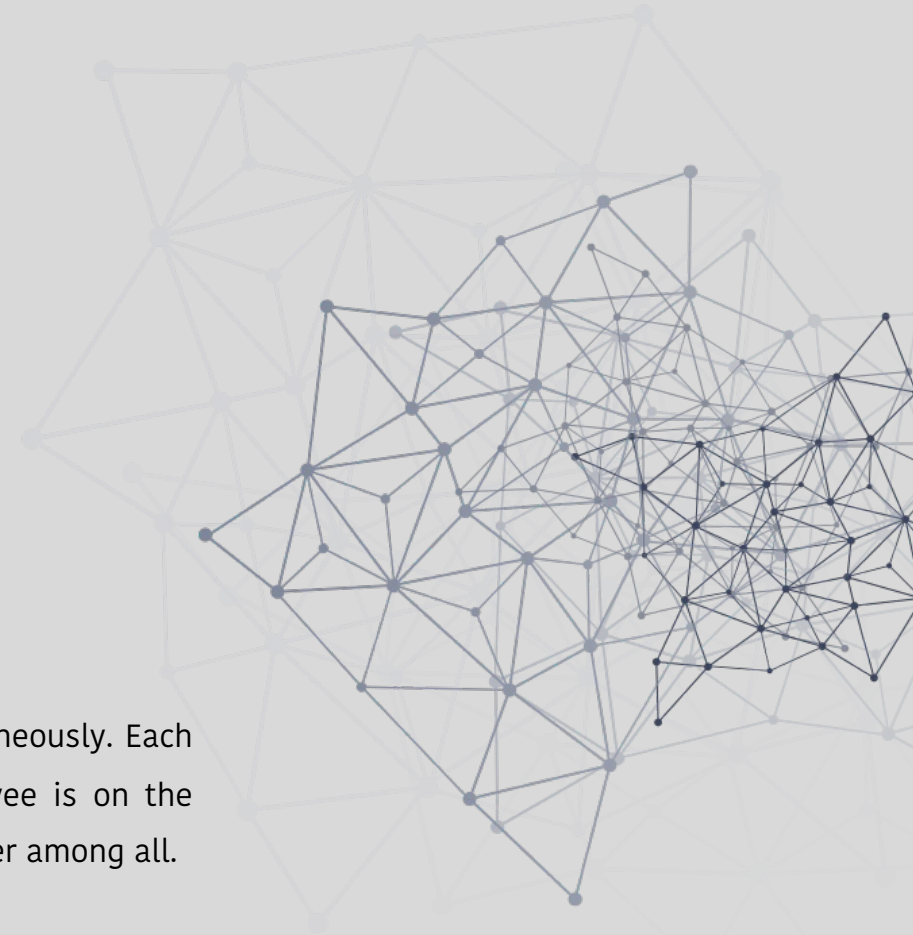
Sales team are given fixed allowance when they are travelling for work. Second table shows the fixed allowance according to the division and grade. First table shows the actual amount they spend while travelling.



Analyst Revenue contribution in a team

In a team of 7-10 employees who is contributing how much revenue

There are 6 employees working in various project simultaneously. Each project has its defined cost. Assuming that each employee is on the same profile. Find out which employee is the best performer among all.



Target versus achievement sales

Data cleaning and finding the target vs achievement sales

There are 5 salesmen with their target and achievement for the months of Apr-22, May-22, Jun-22, Jul-22 and Aug-22. Create a flat file to analyse the data.



Cleaning Financial Data

Revenue vs Expense with Actual and Budgets – Clean and Transform

There is a summarized data showing the revenue and expenses for the month of Nov-22 and Dec-22. Create a flat file, so we can perform the analysis using chart and graphs.

