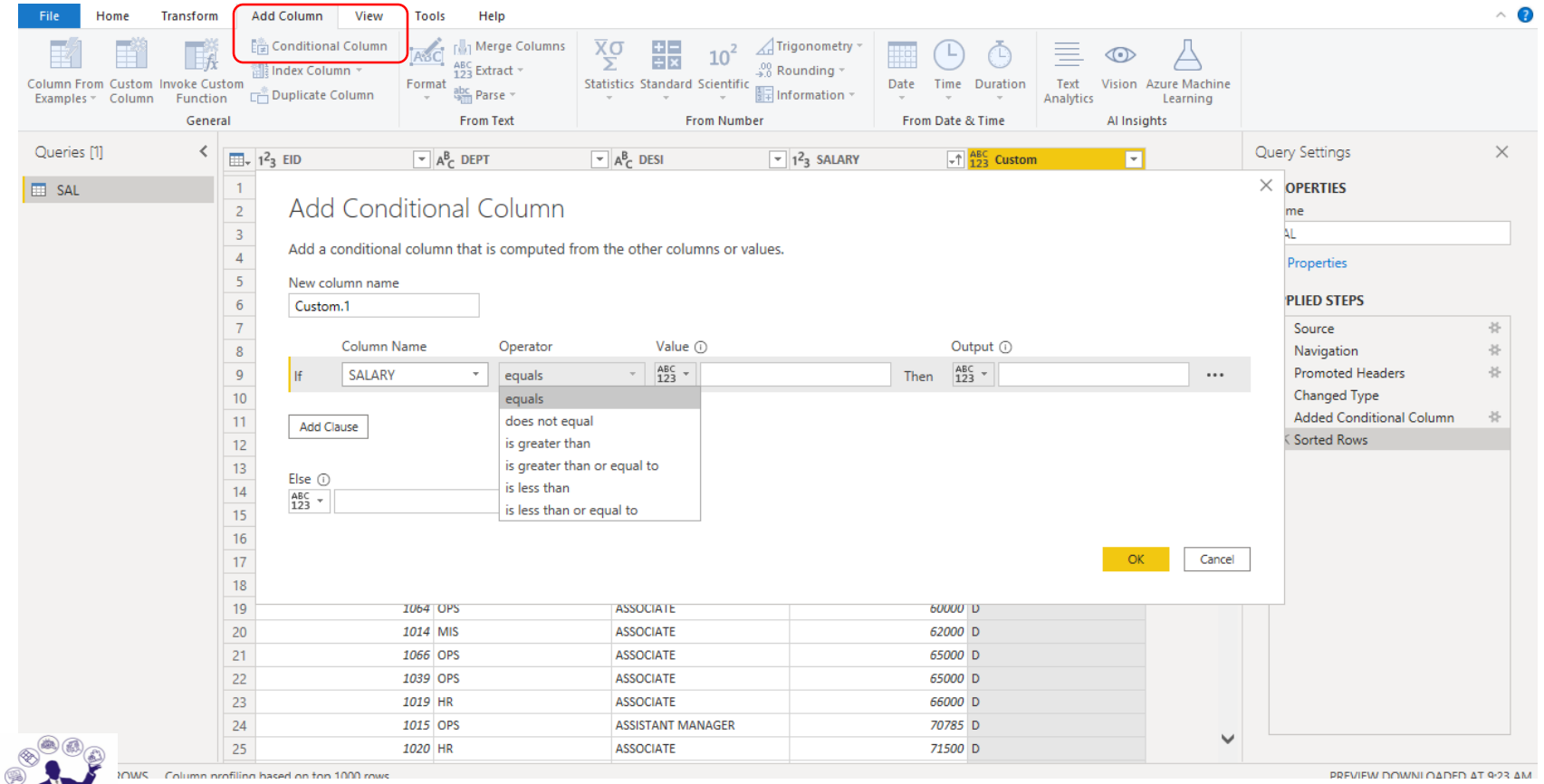
Conditional Columns in Power Query

Conditional Column is just like IF Else formula in Excel without writing any code.

To add a Conditional Column : Add Column -> Conditional Column -> Specify the condition



- Create a visual to display no of employees on the basis of seniority level (tenure Years: > 5 Senior, 3-5 Junior, 1-3 Intern, <1 - Temp)

- Grade the employees on the basis of salary (A >300000 / B >100000/ C >50000 /NA <= 50000) and create a visual to get the percentage wise bifurcation of the grade.

- Create a visual to display the promotion percentage.

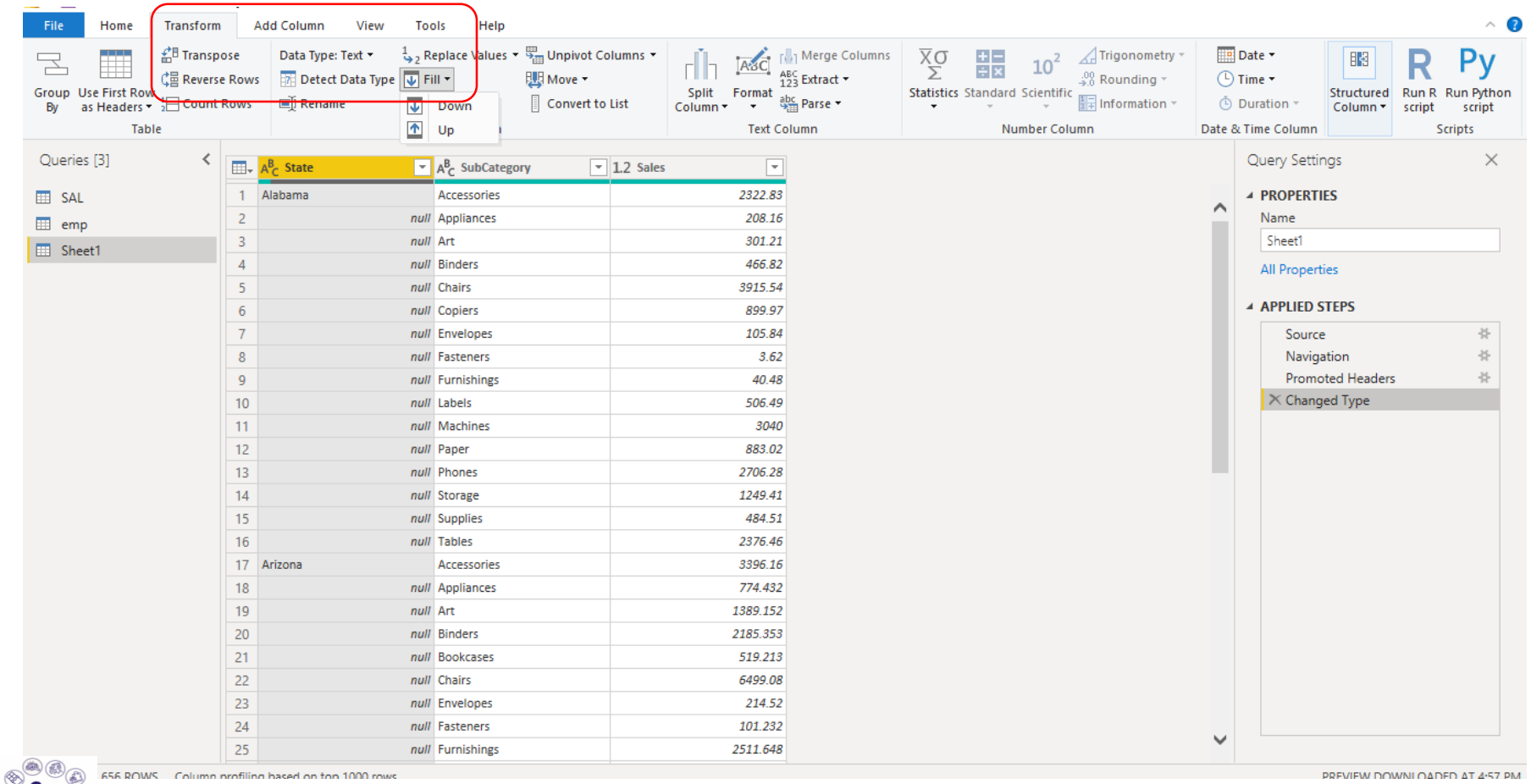
- Using a funnel chart display City wise bifurcation of salary.

- Create a visual to display city wise count of employees bifurcated on the basis of designation.

Auto Fill in Power Query

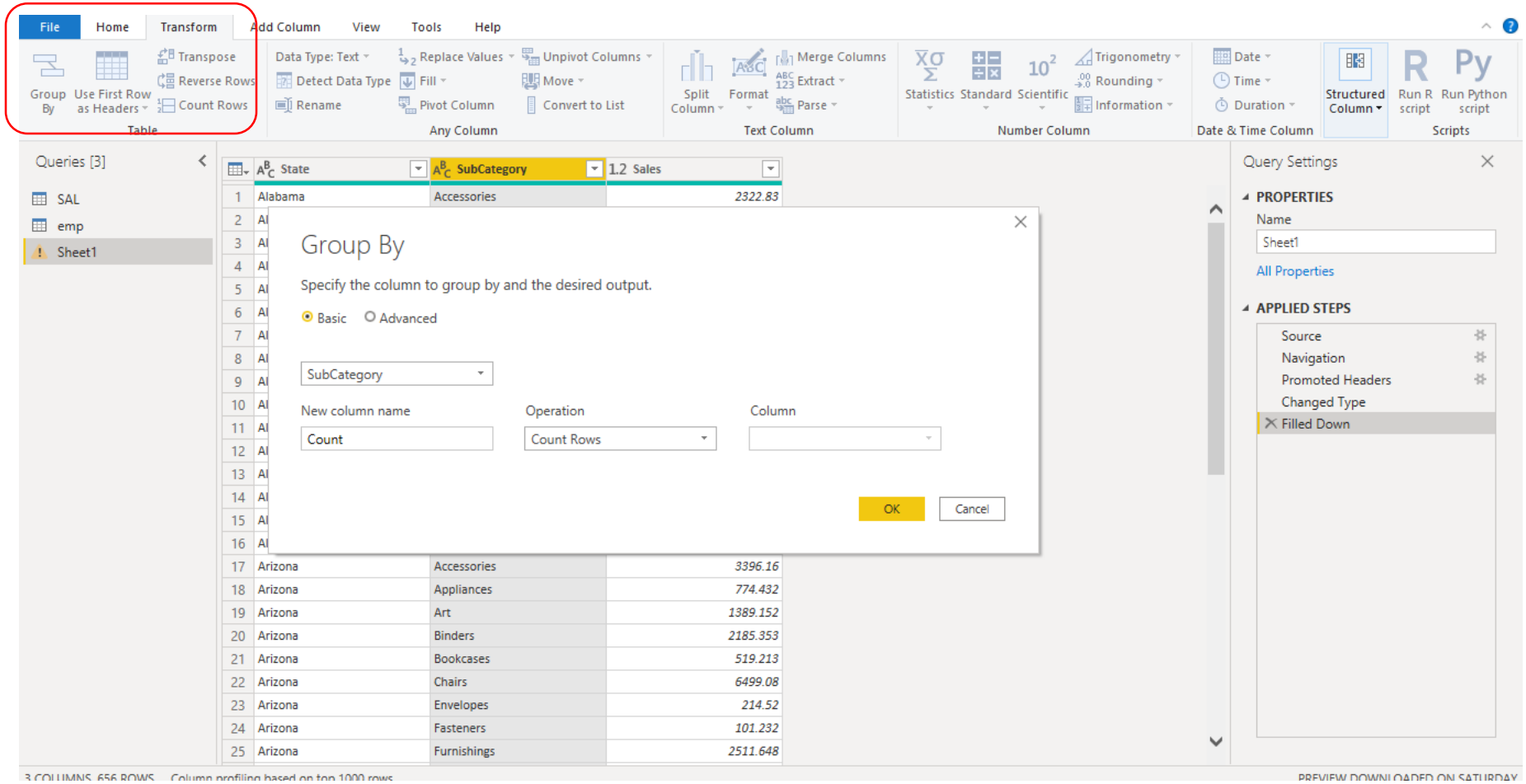
Without writing any code you can fill the data

The FILL Option is available under Transform tab.



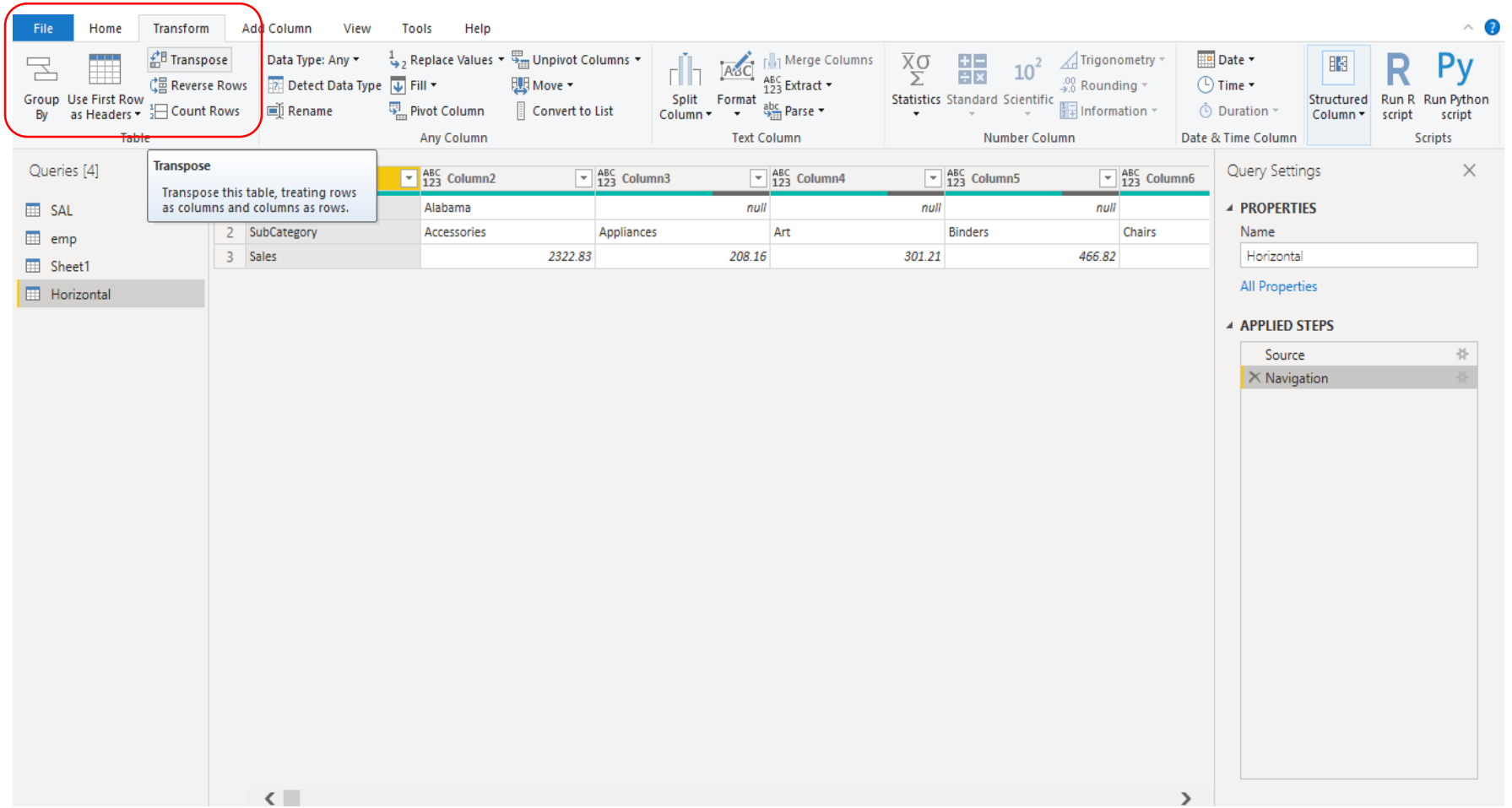
Grouping in Power Query

Group By is used to group the data. This option is available under Transform Menu



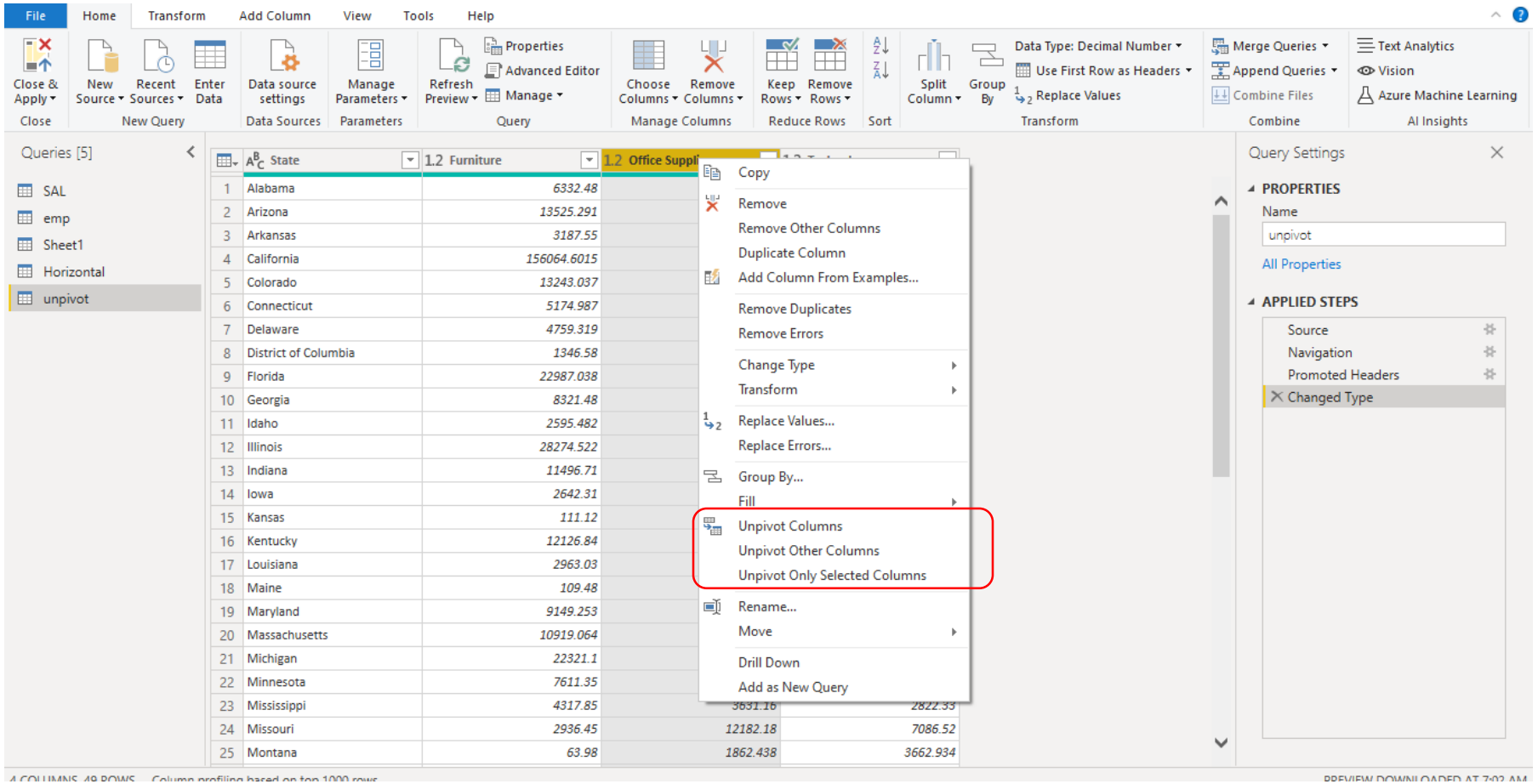
Transpose Data in Power Query

In **Transpose** rows are converted as columns & columns are converted as Rows. This option is available under Transform Menu



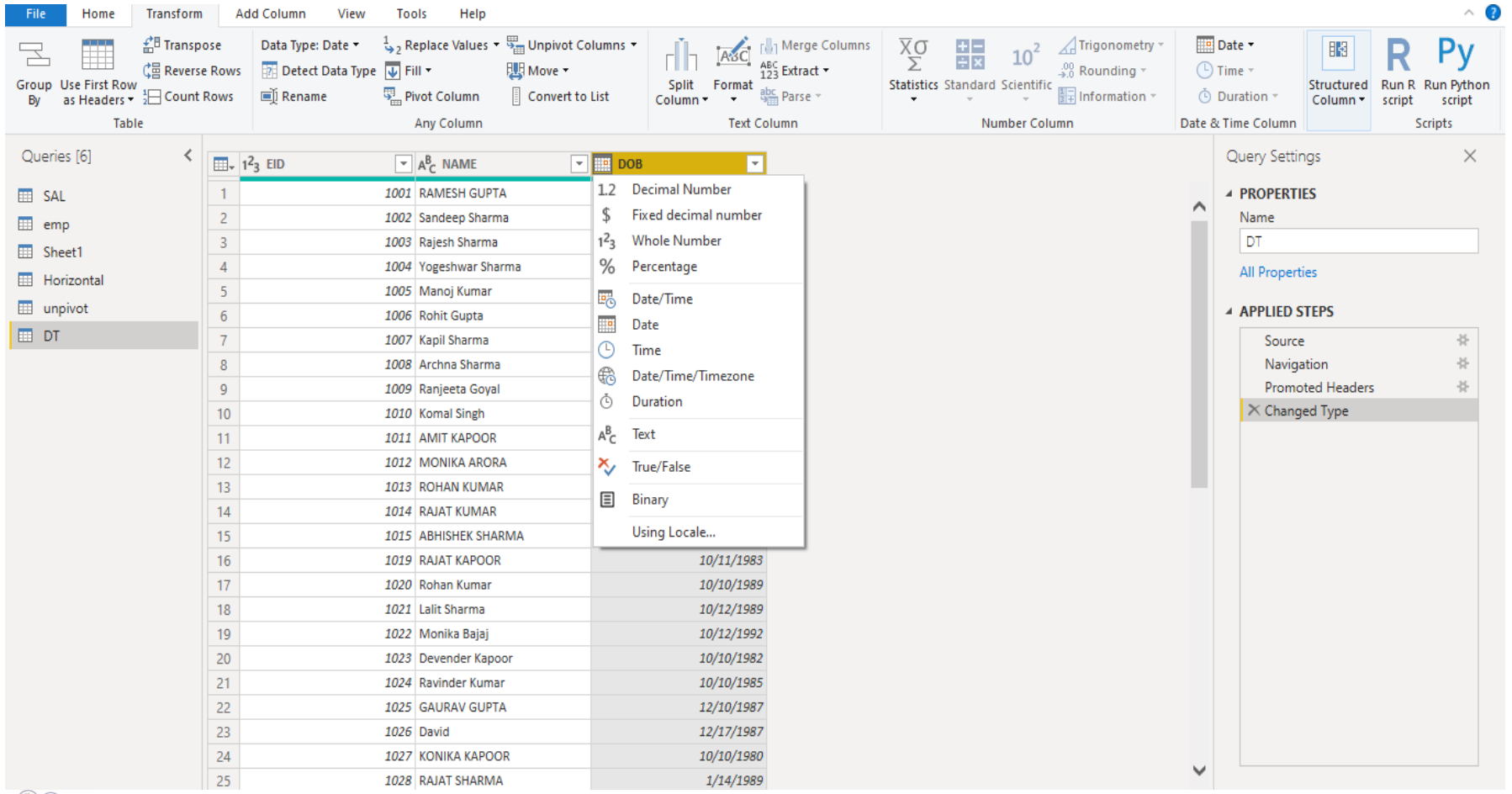
Unpivot Data in Power Query

Unpivot data is the way to get detailed data from the summarized data, which can be further used for visualization purpose.



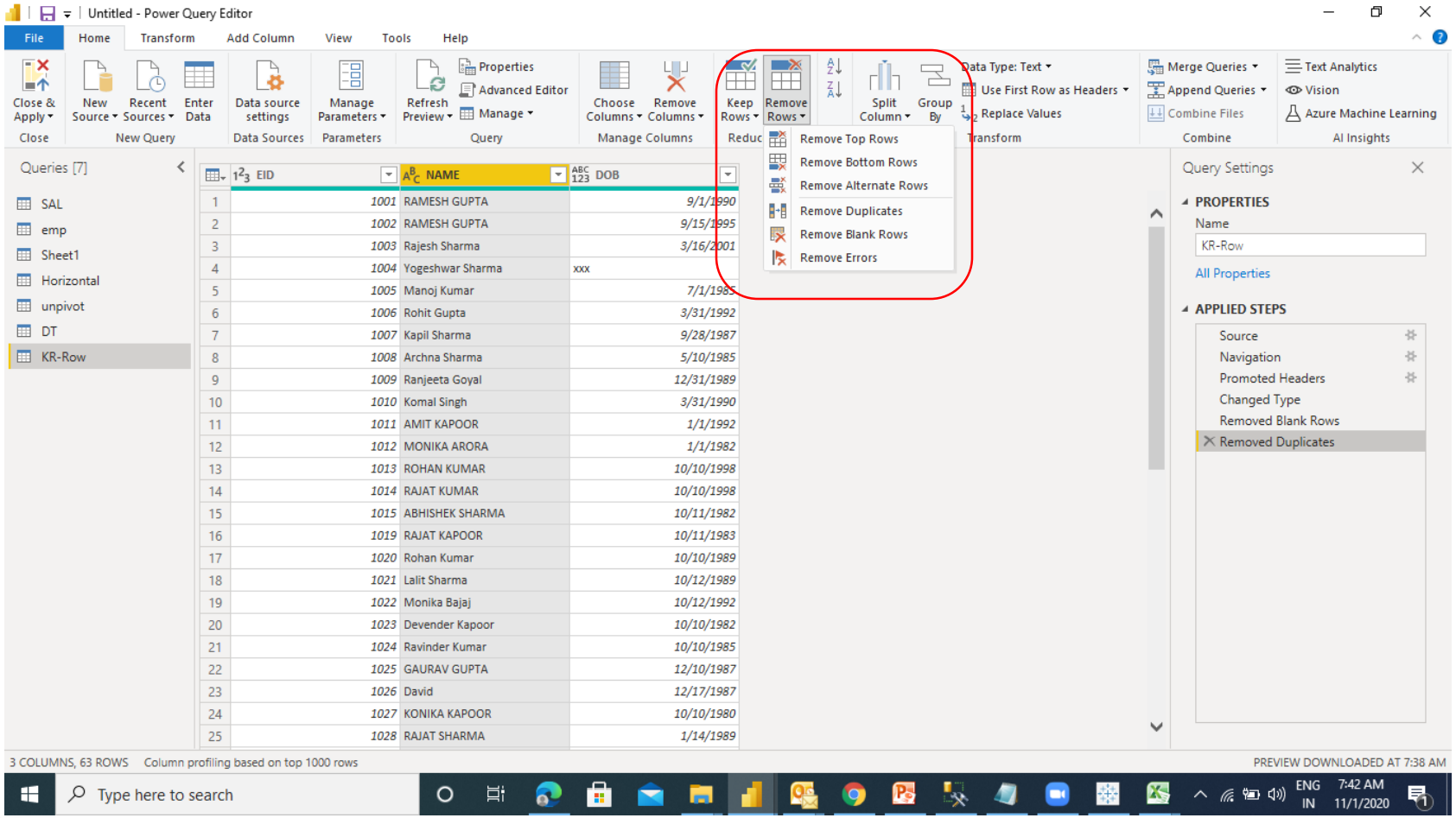
Data type in Power Query

Power Query automatically identifies the data type while loading the data. However if required it can be changed.



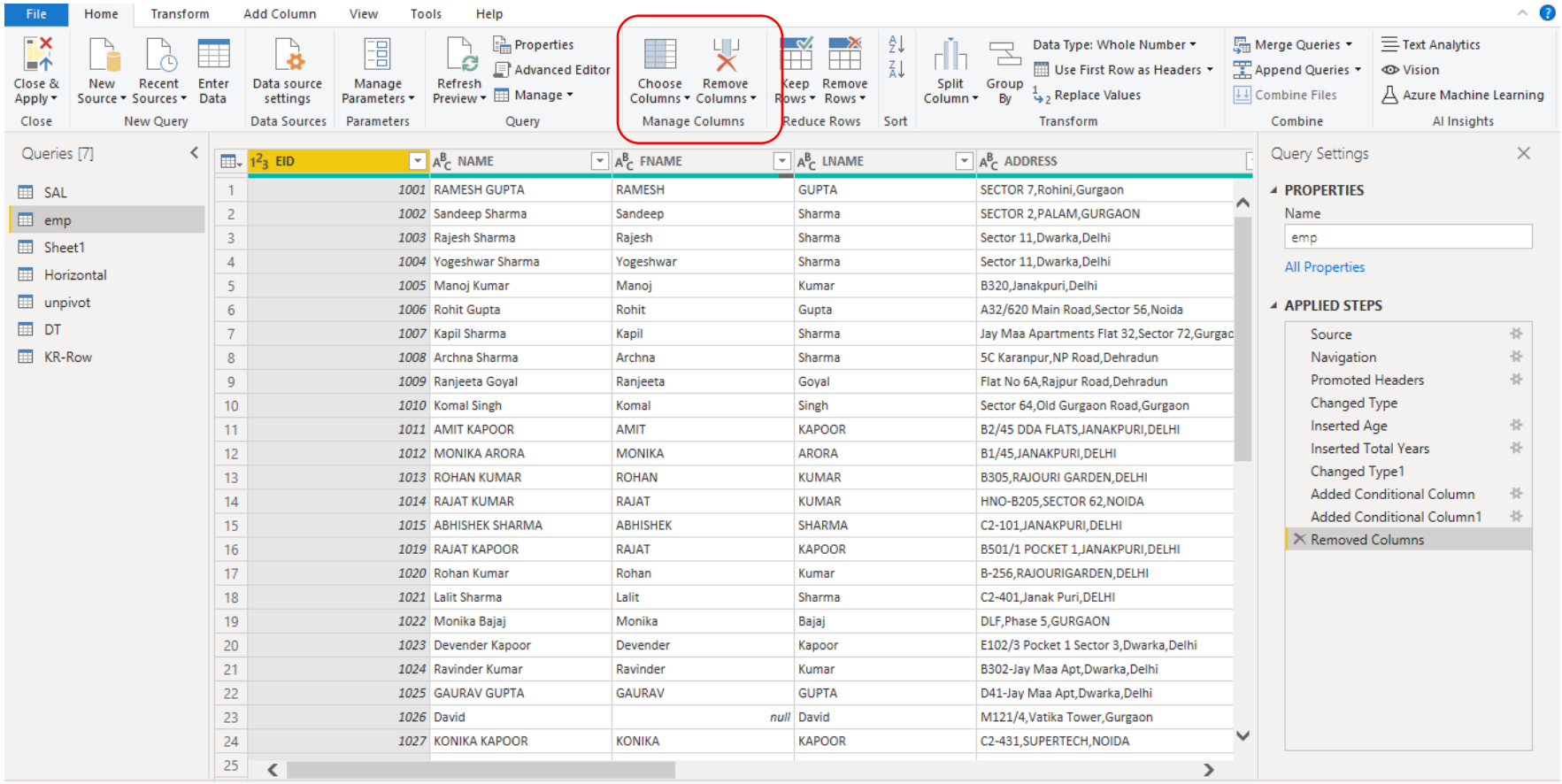
Keep Remove Rows in Power Query

Keep Remove row option is available under Home tab in Power Query. It provide various options to clean the data.



Manipulating Columns in Power Query

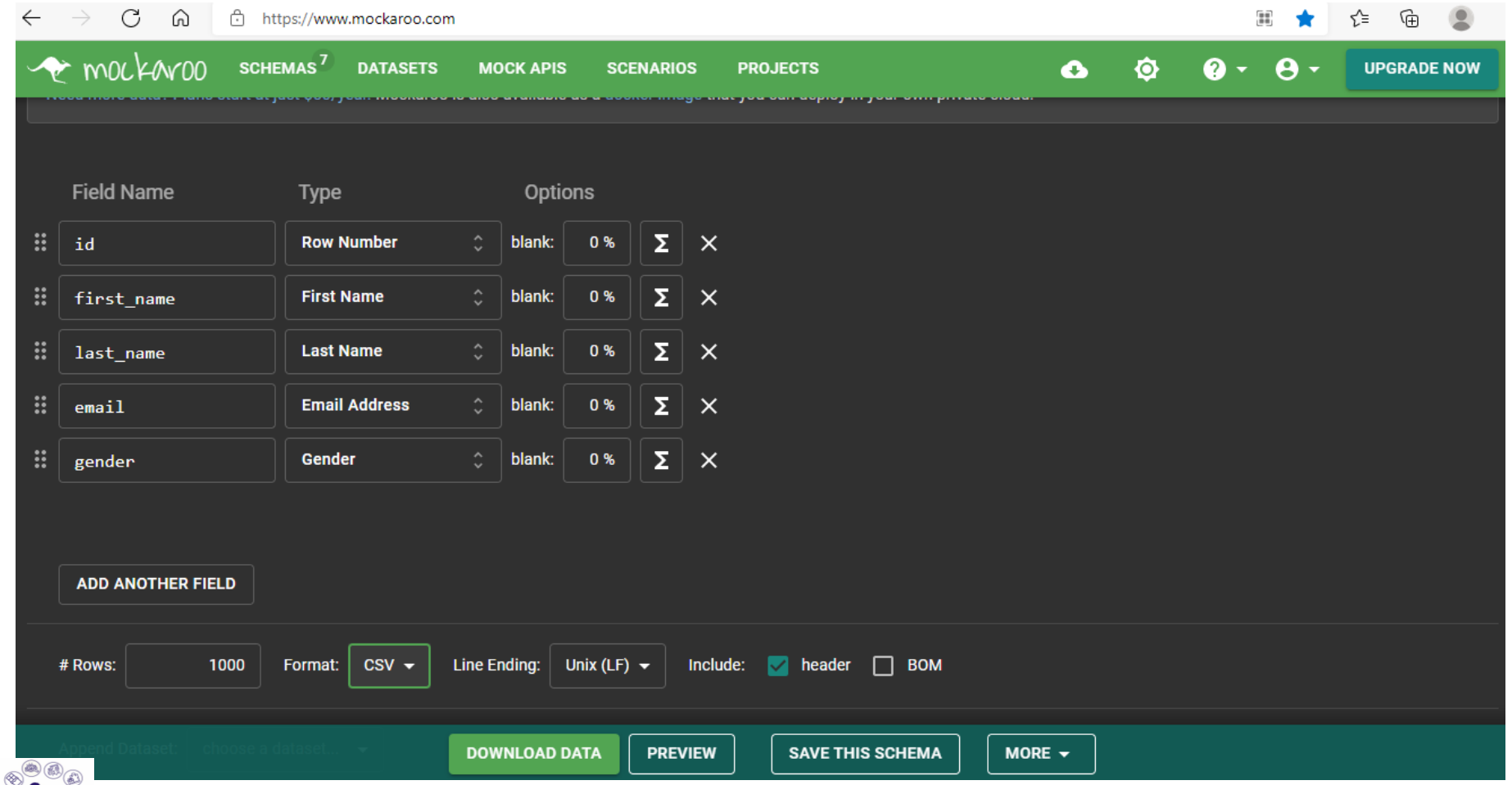
The Manage Column option under the Home tab allows us to Choose the column, Remove Column, Navigate to a particular column.



Mackaroo- Random Data Generator

It is a free data generator tool which lets you create custom datasets as per the specified schema to test and demo your application.

https://www.mockaroo.com



Mackaroo- Random Data Generator

Download dataset using Mackroo.com to create the following tables:

Student

Student ID
Student Name
Gender
DOB
Birth Country
Citizenship
Status (**Active**/Deferred/Withdrawn)
Reason for withdrawal
(Homesick /Academically
Unprepared/Expensive)

Feedback with 5 questions

SID
Q01 - Professors teach well at this university?
Q02 - Teacher encourage us to perform better?
Q03 - I feel job-competent moving forward from this university?
Q04- Lecturers were proficient enough?
Q05 - I would like to recommend this educational institution to others?

Responses : Strongly Agree - 5
Moderately Agree - 4
Neither Agree or Disagree - 3
Moderately Disagree - 2
Strongly Disagree - 1

Data Modelling in Power BI

Data Modeling is used to connect multiple data sources using relationship and allows us to create visuals based on multiple data sources.

To create a data model we need to switch to Model view.

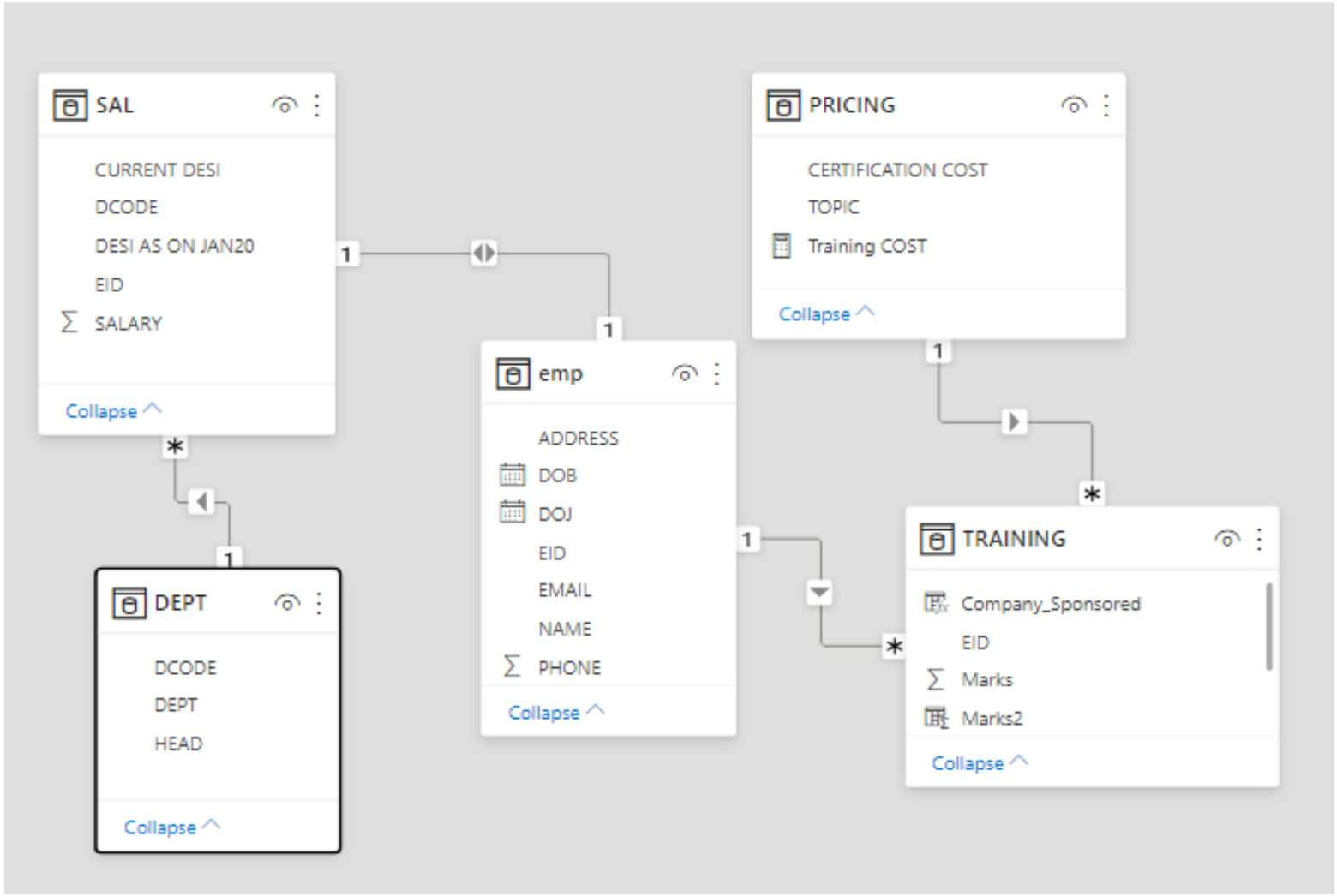
Report View - Allows us to create the visuals

Data View – to see the data from various sources

Model View – to manage relationships

Data Modelling in Power BI

The below model shows the relation ship between Employee, Salary, Dept, Pricing & Training Tables.



Data Modelling in Power BI

The objective of the model is to analyze the training status on the basis of department head

Training Analysis:

- No of Training applied under each head
- No of training completed under each head
- Training result of each head
- No. of company Sponsored Trainings under each head (*Marks >=95 is CS*)
- Training applied for each module
- Percentage of self & company sponsored training

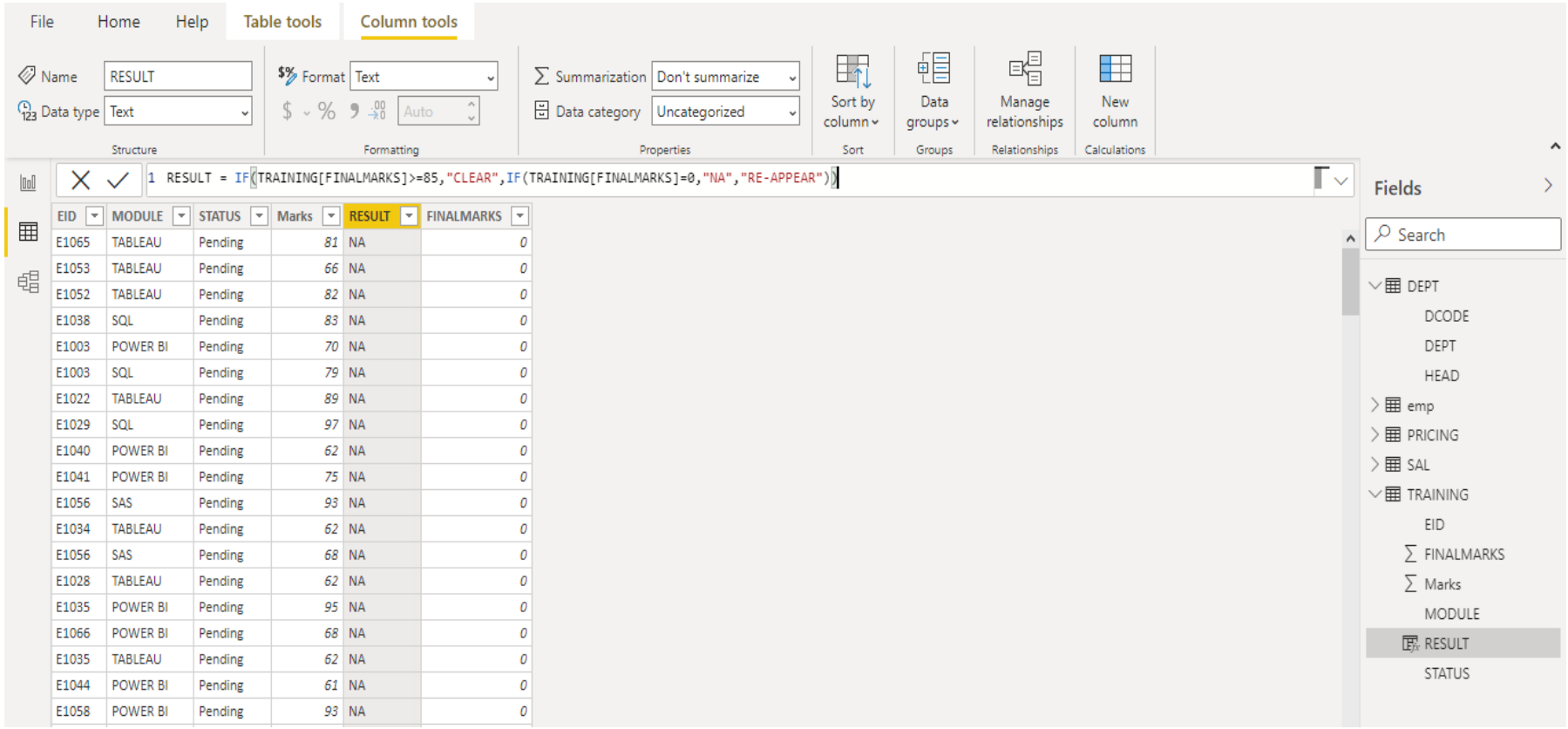
Cost Analysis:

- Department wise total salary
- Department wise cost of company sponsored training
- Bifurcation of company & self sponsored training under each module
- Total no of trainings conducted under each module along with the total cost.

Data Modelling in Power BI

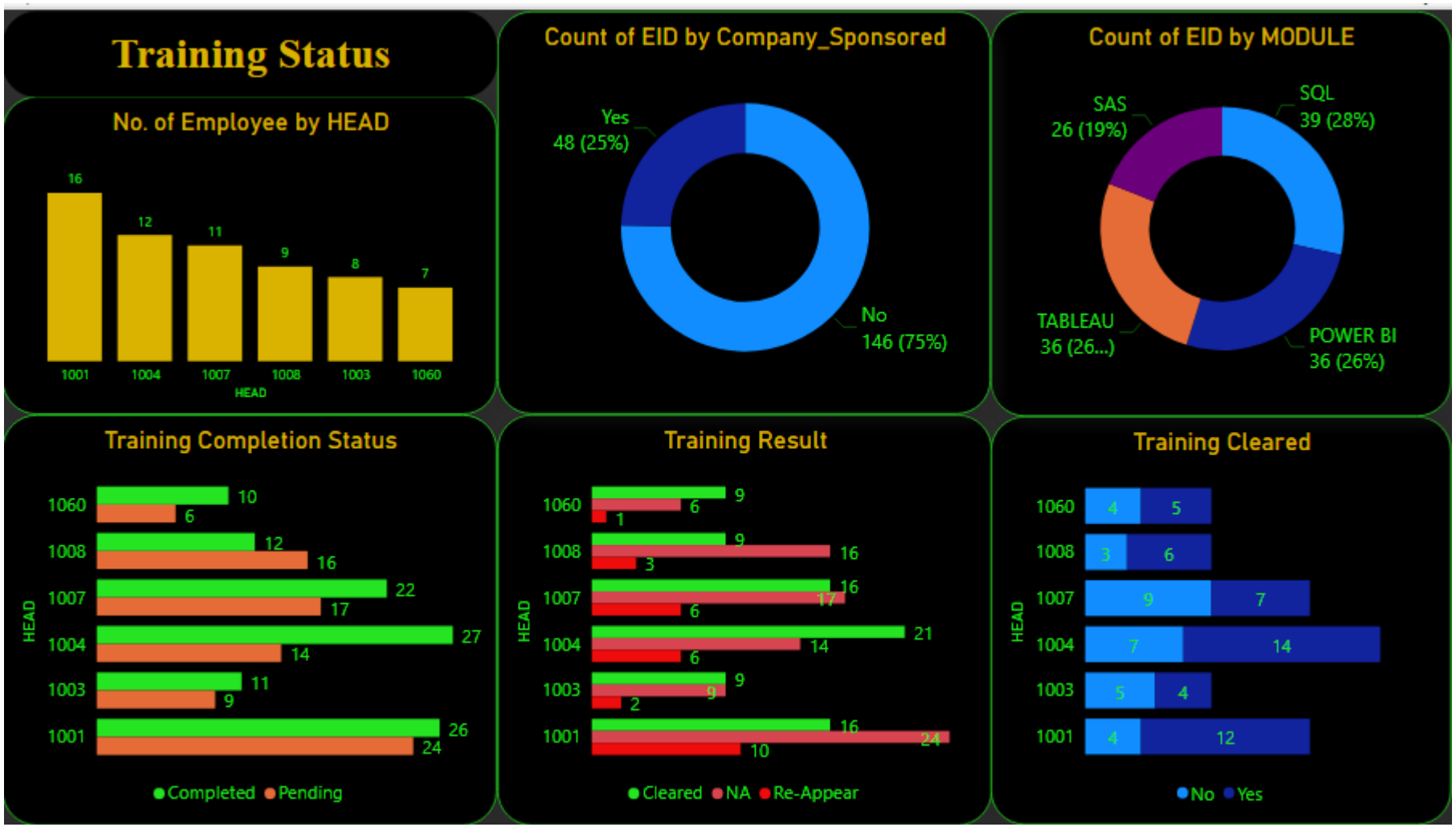
Data View – to see the data from various sources, new columns & measures can also be created in this view.

> Column Tools – New Column

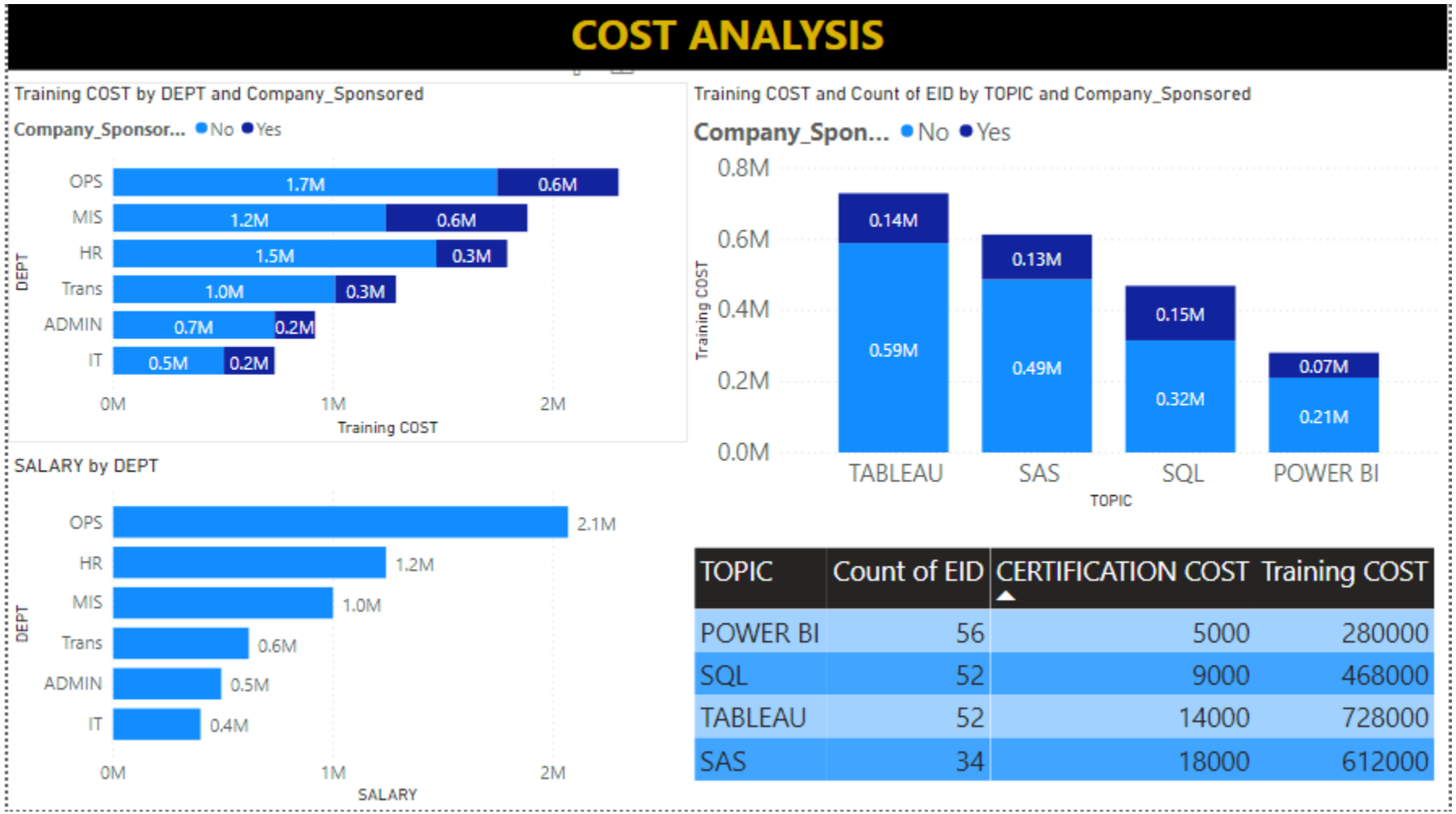


EID	MODULE	STATUS	Marks	RESULT	FINALMARKS
E1065	TABLEAU	Pending	81	NA	0
E1053	TABLEAU	Pending	66	NA	0
E1052	TABLEAU	Pending	82	NA	0
E1038	SQL	Pending	83	NA	0
E1003	POWER BI	Pending	70	NA	0
E1003	SQL	Pending	79	NA	0
E1022	TABLEAU	Pending	89	NA	0
E1029	SQL	Pending	97	NA	0
E1040	POWER BI	Pending	62	NA	0
E1041	POWER BI	Pending	75	NA	0
E1056	SAS	Pending	93	NA	0
E1034	TABLEAU	Pending	62	NA	0
E1056	SAS	Pending	68	NA	0
E1028	TABLEAU	Pending	62	NA	0
E1035	POWER BI	Pending	95	NA	0
E1066	POWER BI	Pending	68	NA	0
E1035	TABLEAU	Pending	62	NA	0
E1044	POWER BI	Pending	61	NA	0
E1058	POWER BI	Pending	93	NA	0

Data Modelling in Power BI



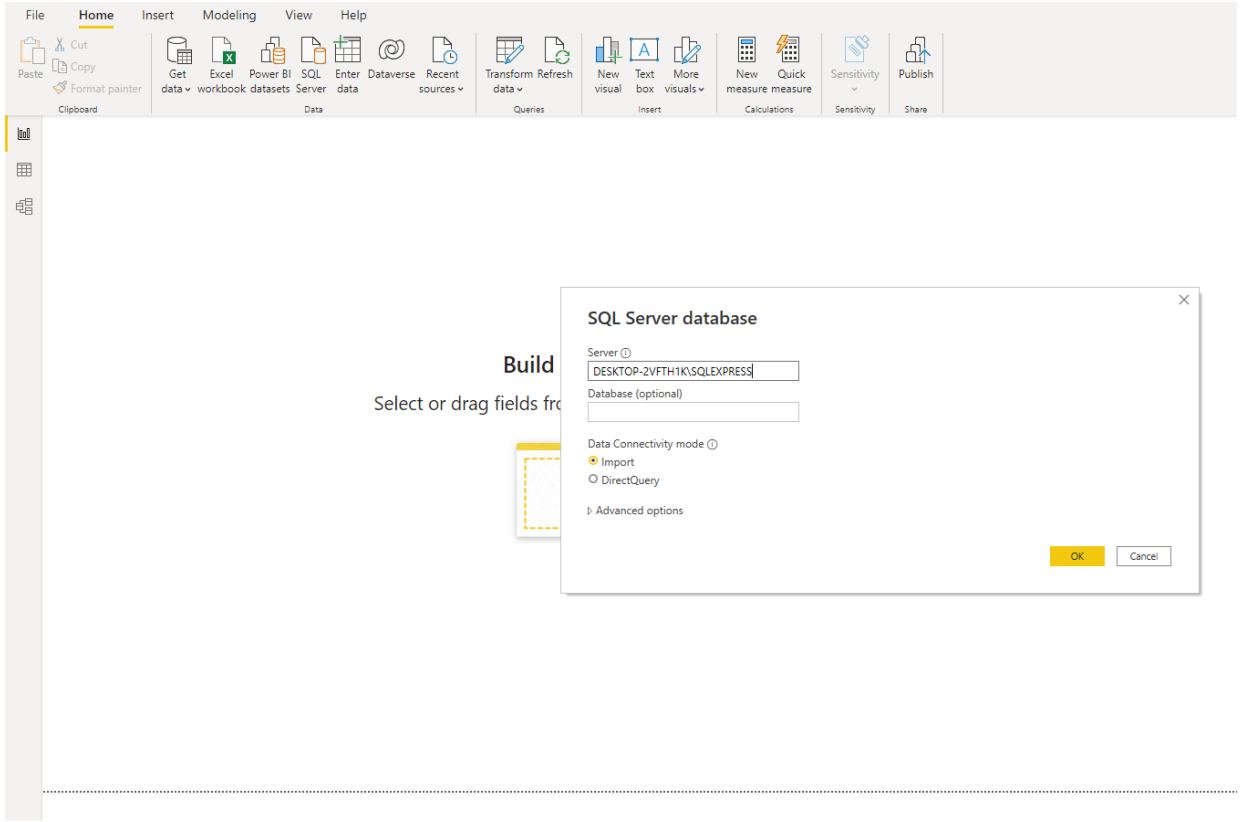
Data Modelling in Power BI



TOPIC	Count of EID	CERTIFICATION COST	Training COST
POWER BI	56	5000	280000
SQL	52	9000	468000
TABLEAU	52	14000	728000
SAS	34	18000	612000

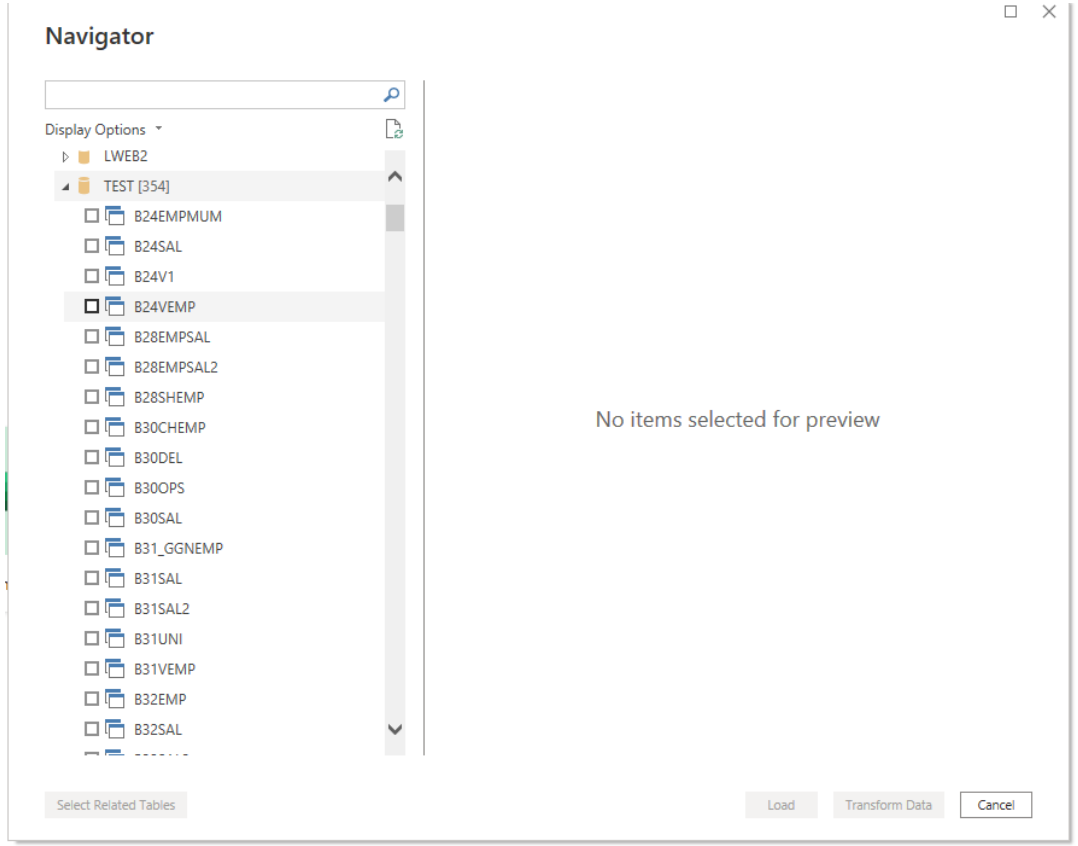
Connecting to SQL

To connect to SQL we just need to specify the server name and click on OK



Connecting to SQL

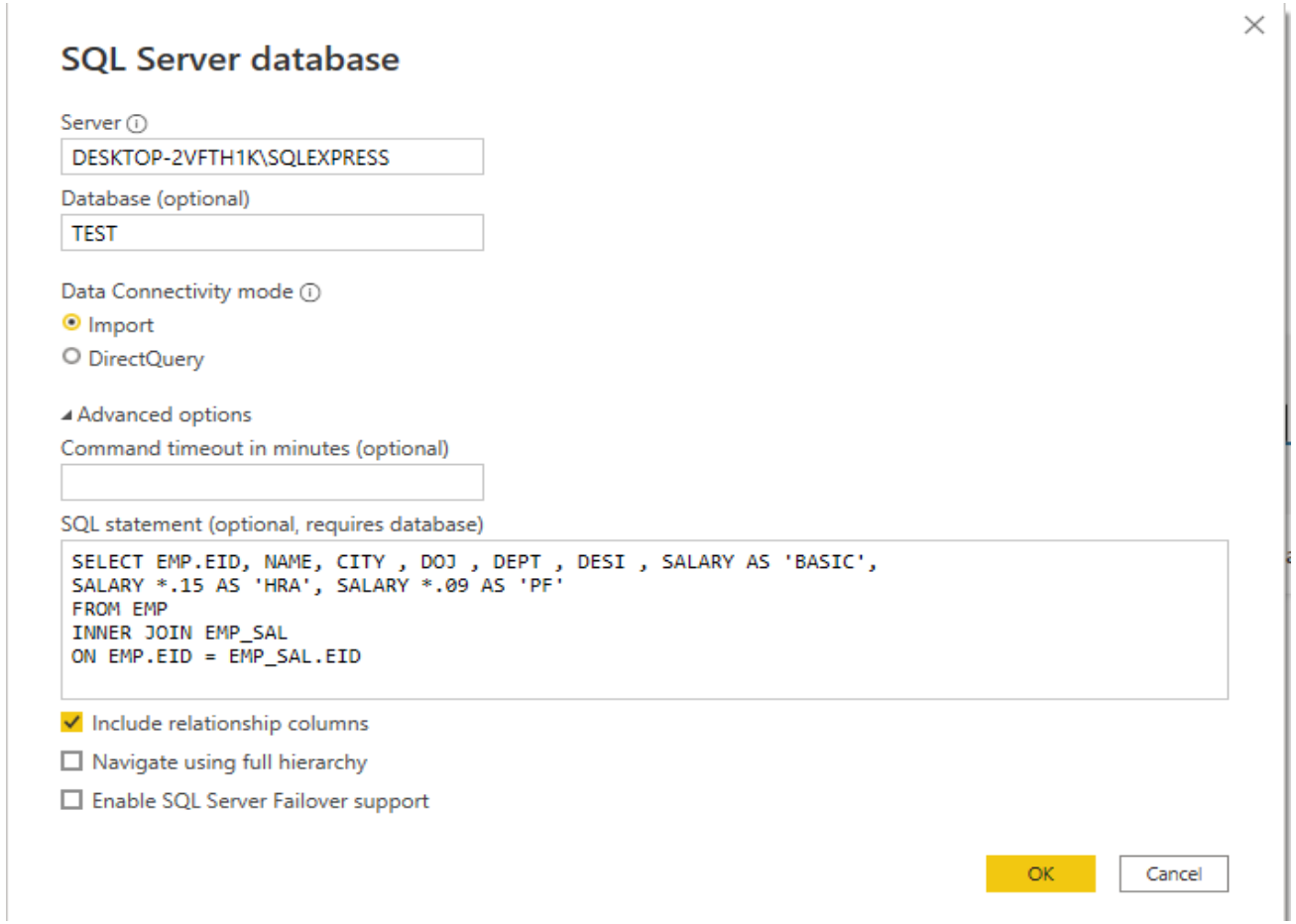
Once connected all the database will be displayed. Go to the desired database, select the table you need to connect and select Load / Transform



We can get the data from multiple tables and create the model in Power BI

Connecting to SQL

We can also write the SQL query to get the desired data from multiple tables and create a single query in Power Bi.



Note : Changes done in data source will be automatically reflected in the report

Thanks!

EVERY **ENDING**
IS REALLY JUST A
NEW BEGINNING

Rajeev Garg
Data Analytics Trainer