armanino

Tax Executives Institute Technology Boot Camp

AN INTRODUCTION TO MICROSOFT GET & TRANSFROM

Presenters:

Jeff Bogan, CPA – Managing Director

- 20 years of public accounting experience and the leader of Armanino's tax technology practice

Brandon Radlinger, CPA – Senior Associate

- 4 years of experience in public accounting with a strong emphasis in automation, data cleansing, and process standardization

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Learning Objectives

Objective of Course:

- Provide an overview of the data life cycle and how it applies to tax processes and tax calculations.
- Describe the challenges faced by tax professionals in transforming data for tax purposes.
- Introduce Microsoft Get & Transform (aka Power Query) and demonstrate functionality.
- Gain “hands-on” experience with Get & Transform through a case study.

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Agenda for Today

- The Data Life Cycle
- Overview of Get & Transform (Power Query)
- Case Studies
- Create Visualizations in PowerBI

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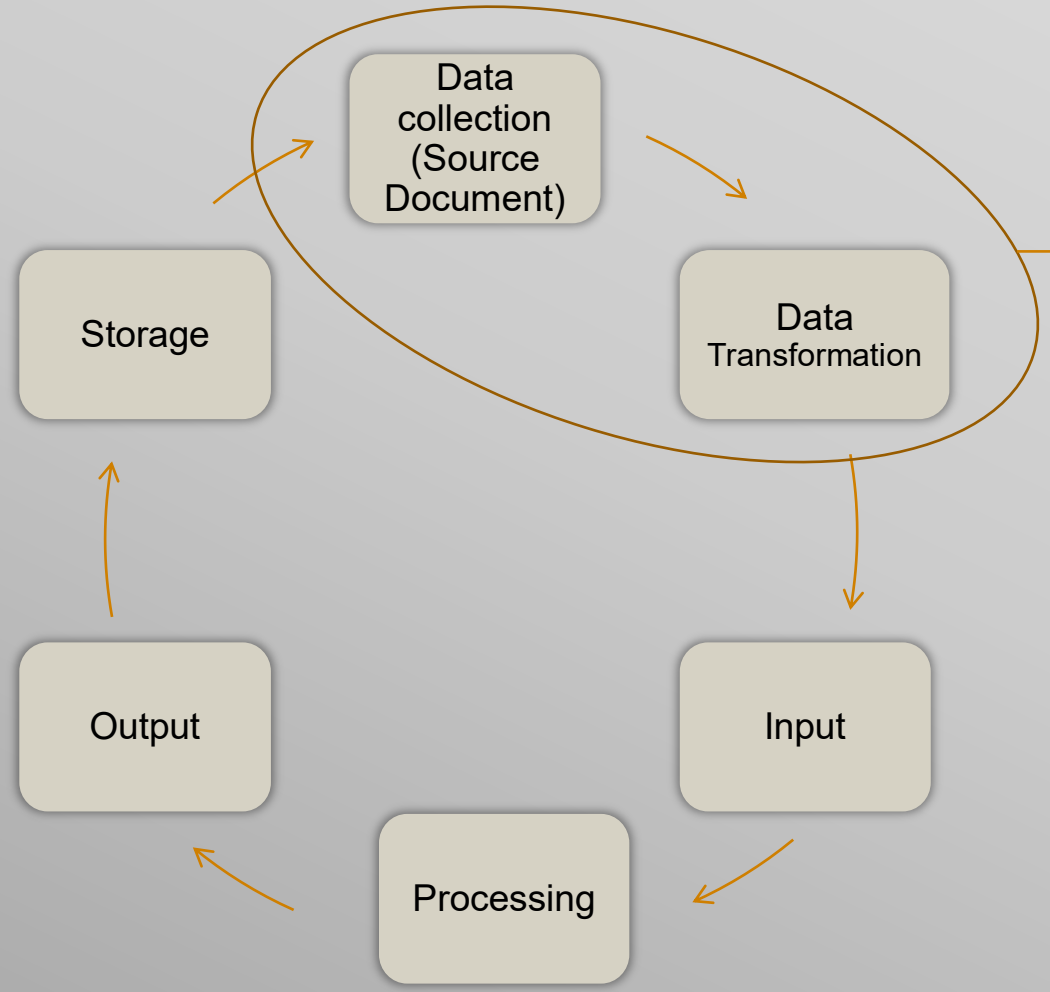
PROCESS/DATA LIFE CYLCLE

Input, Process, Output



Current State – 60% of time is spent on “Extract, Transform, Load (“ETL”) activities – typically very low value tasks

Ideal Future State – 20% should be spent on ETL activities and 80% should be spent on analytics, review activities, planning, problem solving, and strategy, which are higher value activities

Applications such as Microsoft Get & Transform (Power Query) and Alteryx help us achieve the Ideal Future State by automating and creating efficiencies with ETL activities

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MICROSOFT EXCEL

Get & Transform

- Get & Transform is a data-transformation tool housed within Microsoft Excel and Power BI
- Data often arrives in unstructured formats, which makes the ETL (extract, transform, and load) process a tedious process of manual workarounds
- Get & Transform speeds up the process by cleaning and organizing raw data through automation, which ultimately assists the analytical task of uncovering observations and trends

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DOING IT RIGHT

What Is a Proper Data Set?

NOT Proper

Division	Legal Entity	2020 Income Tax Expense	
101	Ross Corp	100000	
101	Rachel Corp	24000	
101	Joey Corp	12000	
101	Monica Corp	32000	
101	Phoebe Corp	15000	
101	Chandler Corp	21000	
	Subtotal	204000	
102	Cam Corp	3000	
102	Mitch Corp	1200	
102	Phil Corporation	32400	
102	Alex Corp	1200	
102	Manny Corp	1250	
102	Jay Corporation	3210	
	Subtotal	42260	
	Grand Total		246260
wihout Manny	245010		

Proper

Division	Legal Entity	2020 Income Tax Expense
101	Ross Corp	100000
101	Rachel Corp	24000
101	Joey Corp	12000
101	Monica Corp	32000
101	Phoebe Corp	15000
101	Chandler Corp	21000
102	Cam Corp	3000
102	Mitch Corp	1200
102	Phil Corporation	32400
102	Alex Corp	1200
102	Manny Corp	1250
102	Jay Corporation	3210

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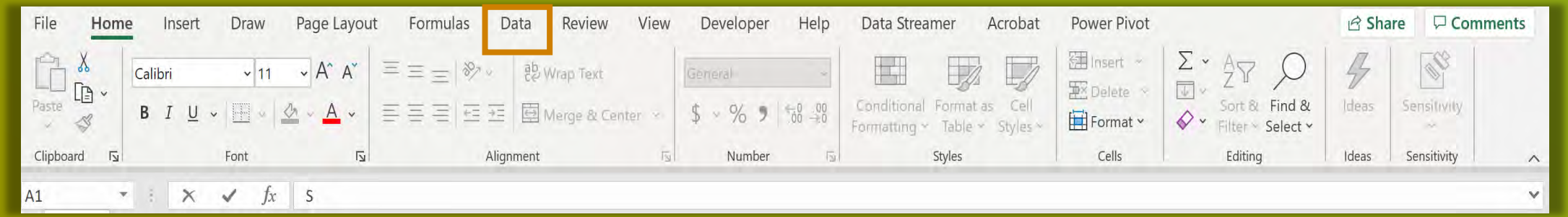
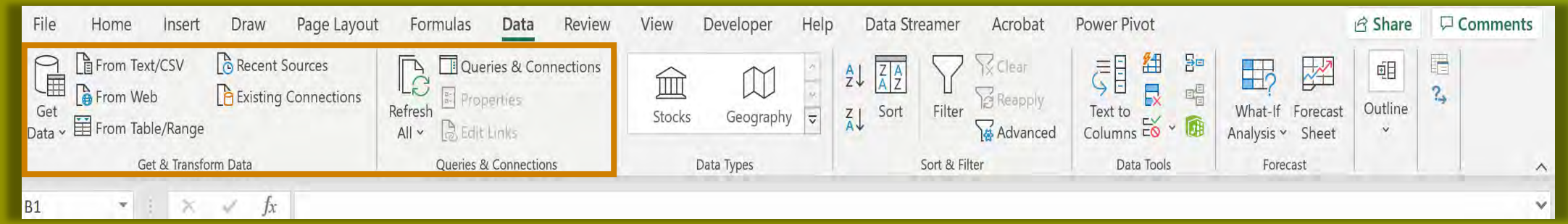
HOW TO

Locating Get & Transform Functions





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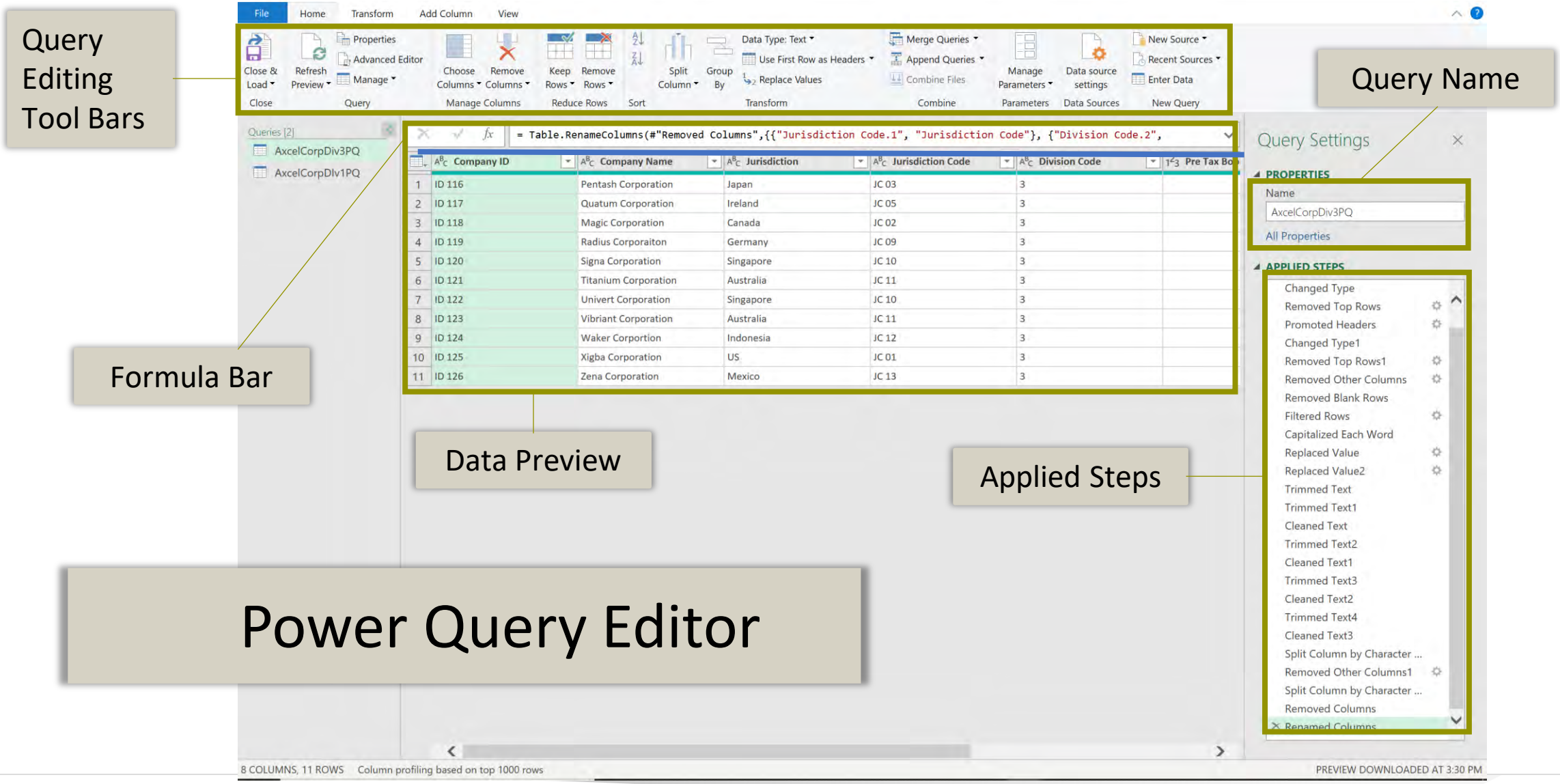

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GET & TRANSFORM

Demo & Case Studies

Get & Transform Functions

- Manage Columns
- Reduce Rows
- Use First Row as Headers
- Replace Values
- Split Column
- Rename
- Clean
- Extract
- Close and Load

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TABLE AND SLICER

Examples

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MICROSOFT

Power BI

Power BI is a standalone Microsoft business intelligence product, which includes both desktop and web-based applications for loading, modeling, and visualizing data

More information at **powerbi.microsoft.com**

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MICROSOFT

Power BI

- **Connect, transform, clean and analyze data**
  - *Access data from virtually anywhere (database tables, flat files, cloud services, folders, etc.), and create fully automated data shaping and loading (ETL) procedures*
- **Build relational models to blend data from multiple sources**
  - *Create table relationships to analyze information across a series of datasets*
- **Visualize data with interactive reports & dashboards**
  - *Build custom business intelligence tools with best-in-class visualization and dashboard features*
- **Define complex calculations using Data Analysis Expressions (DAX)**
  - *Enhance datasets and enable advanced analytics with powerful and portable DAX expressions*

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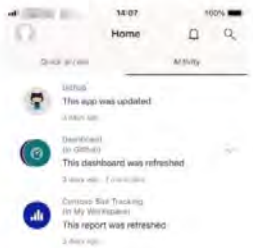
The parts of Power BI

Power BI consists of a Microsoft Windows desktop application called Power BI Desktop, an online SaaS (Software as a Service) service called the Power BI service, and mobile Power BI apps that are available on phones and tablets.

Power BI Desktop

Power BI service

Power BI Mobile



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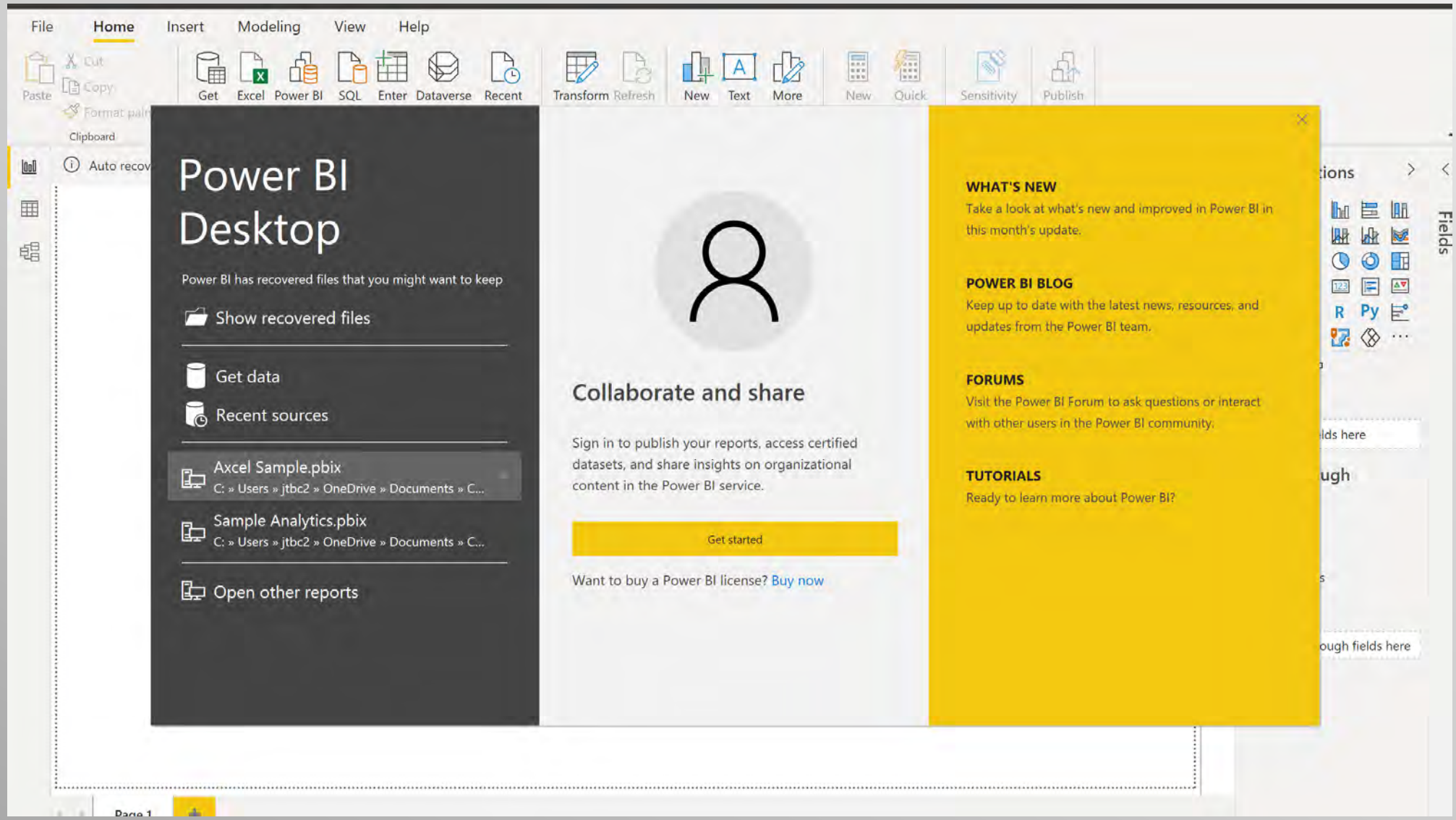

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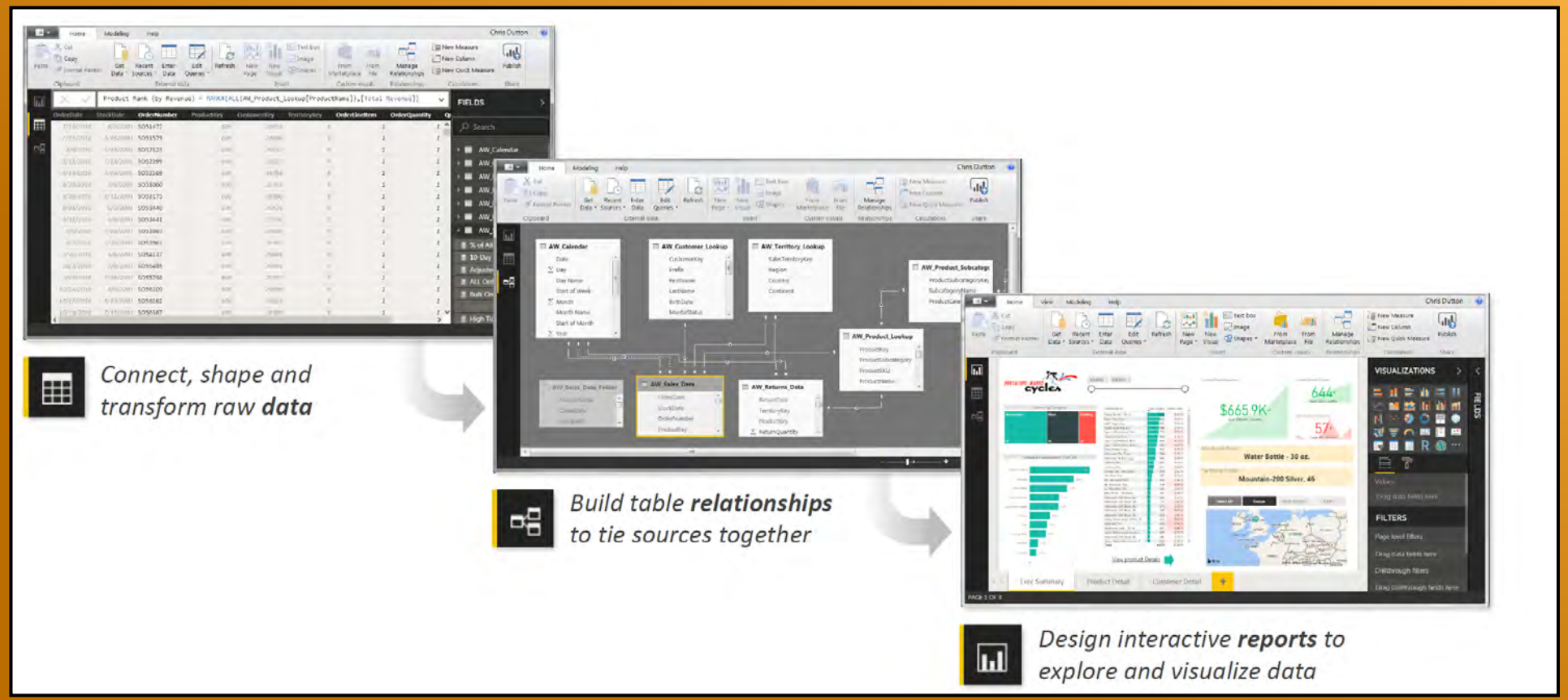
POWER BI

Workflow



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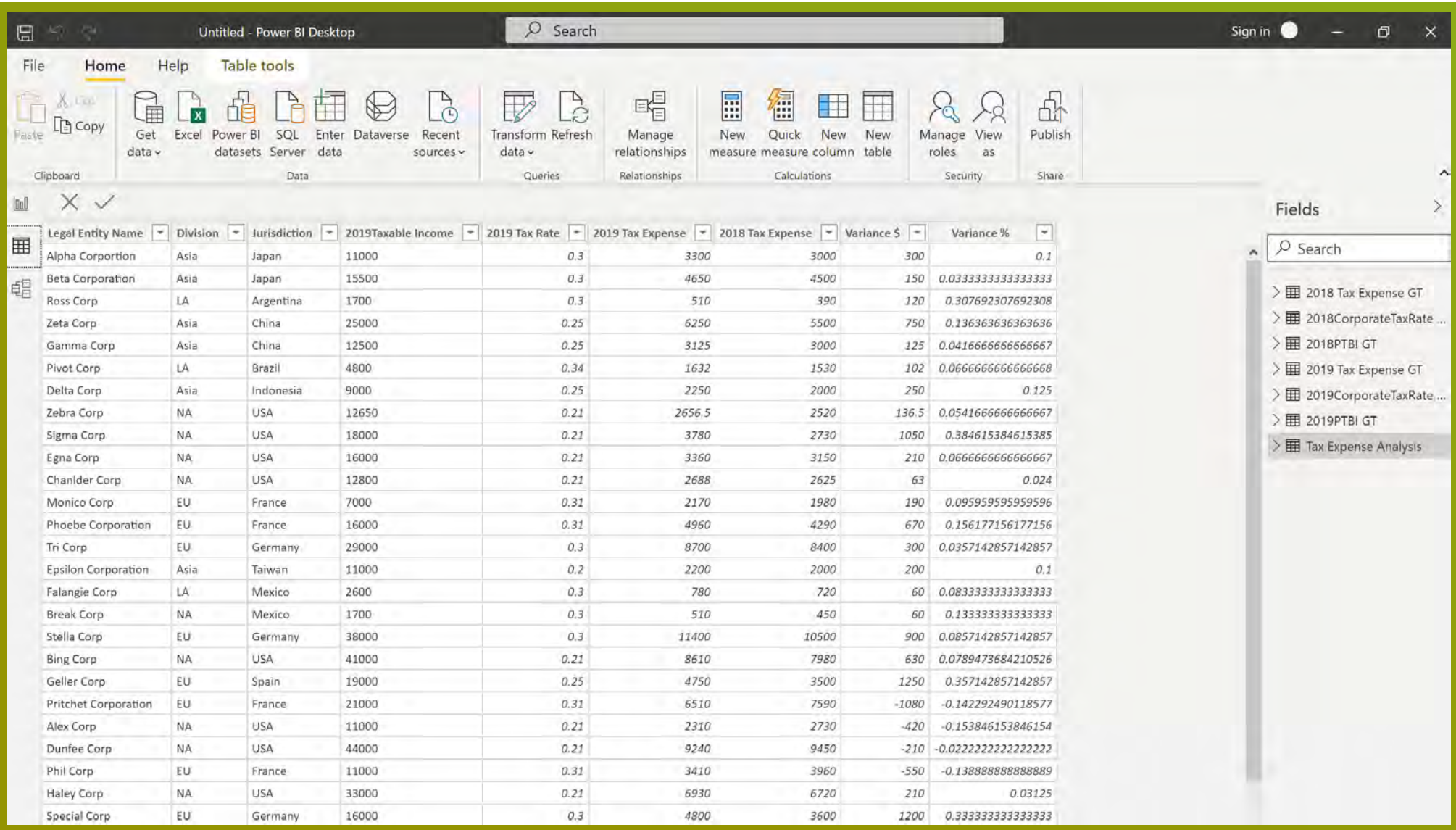

Legal Entity Name	Division	Jurisdiction	2019Taxable Income	2019 Tax Rate	2019 Tax Expense	2018 Tax Expense	Variance $	Variance %
Alpha Corportion	Asia	Japan	11000	0.3	3300	3000	300	0.1
Beta Corporation	Asia	Japan	15500	0.3	4650	4500	150	0.0333333333333333
Ross Corp	LA	Argentina	1700	0.3	510	390	120	0.307692307692308
Zeta Corp	Asia	China	25000	0.25	6250	5500	750	0.136363636363636
Gamma Corp	Asia	China	12500	0.25	3125	3000	125	0.0416666666666667
Pivot Corp	LA	Brazil	4800	0.34	1632	1530	102	0.0666666666666668
Delta Corp	Asia	Indonesia	9000	0.25	2250	2000	250	0.125
Zebra Corp	NA	USA	12650	0.21	2656.5	2520	136.5	0.0541666666666667
Sigma Corp	NA	USA	18000	0.21	3780	2730	1050	0.384615384615385
Egna Corp	NA	USA	16000	0.21	3360	3150	210	0.0666666666666667
Chanlder Corp	NA	USA	12800	0.21	2688	2625	63	0.024
Monico Corp	EU	France	7000	0.31	2170	1980	190	0.095959595959596
Phoebe Corporation	EU	France	16000	0.31	4960	4290	670	0.156177156177156
Tri Corp	EU	Germany	29000	0.3	8700	8400	300	0.0357142857142857
Epsilon Corporation	Asia	Taiwan	11000	0.2	2200	2000	200	0.1
Falangie Corp	LA	Mexico	2600	0.3	780	720	60	0.0833333333333333
Break Corp	NA	Mexico	1700	0.3	510	450	60	0.133333333333333
Stella Corp	EU	Germany	38000	0.3	11400	10500	900	0.0857142857142857
Bing Corp	NA	USA	41000	0.21	8610	7980	630	0.0789473684210526
Geller Corp	EU	Spain	19000	0.25	4750	3500	1250	0.357142857142857
Pritchet Corporation	EU	France	21000	0.31	6510	7590	-1080	-0.142292490118577
Alex Corp	NA	USA	11000	0.21	2310	2730	-420	-0.153846153846154
Dunfee Corp	NA	USA	44000	0.21	9240	9450	-210	-0.0222222222222222
Phil Corp	EU	France	11000	0.31	3410	3960	-550	-0.138888888888889
Haley Corp	NA	USA	33000	0.21	6930	6720	210	0.03125
Special Corp	EU	Germany	16000	0.3	4800	3600	1200	0.333333333333333

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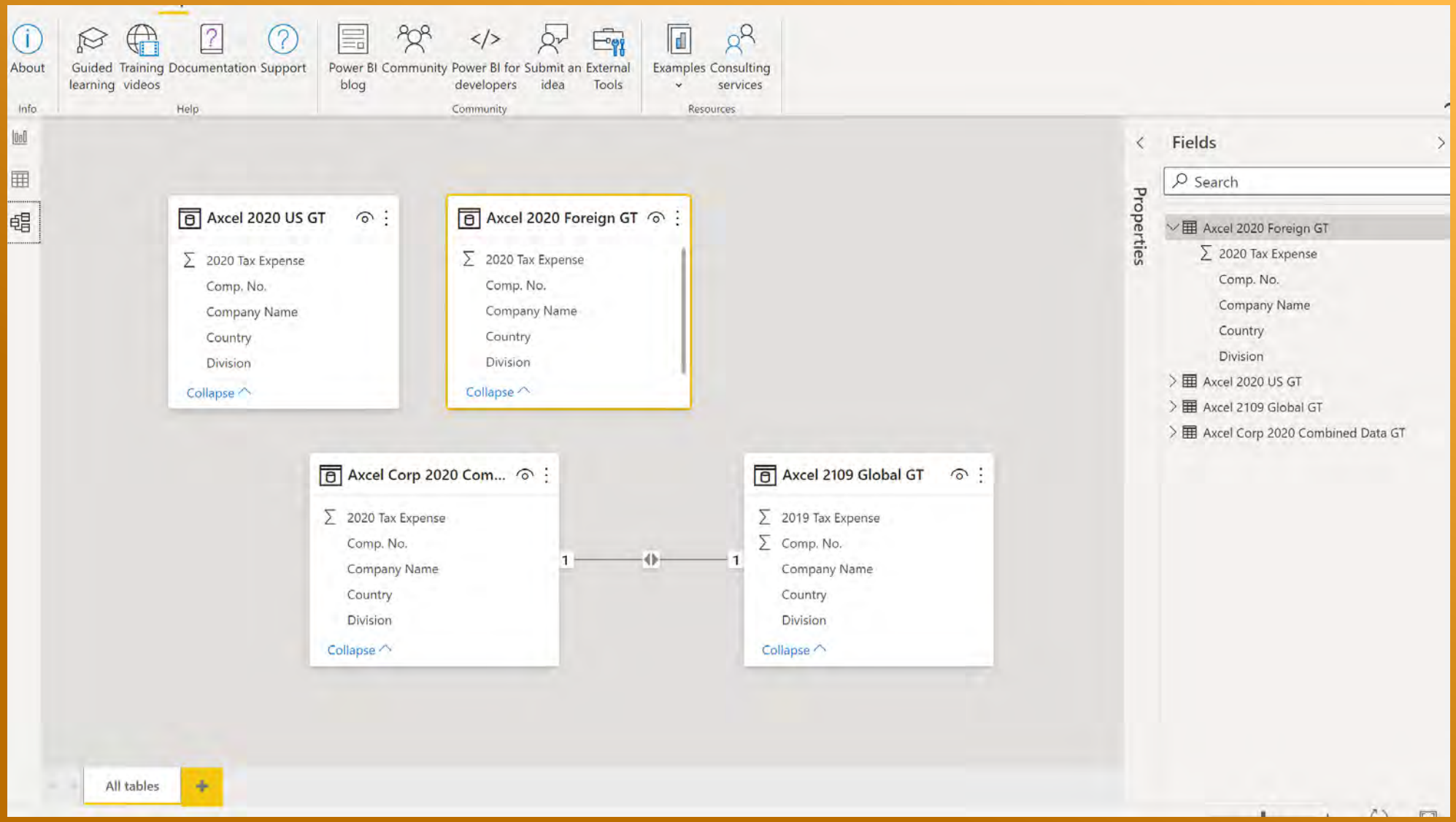

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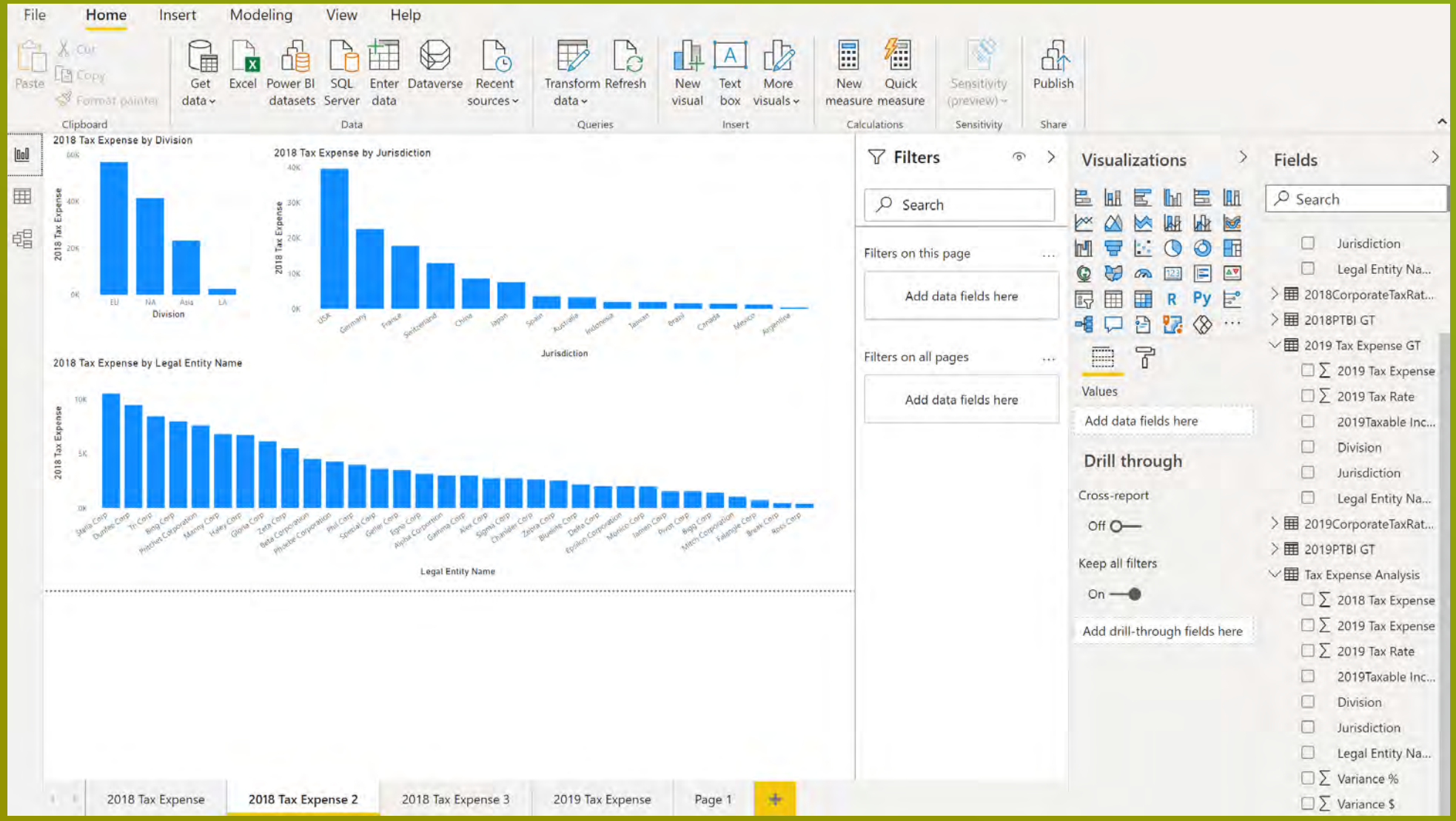

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Questions?

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