



# Components of Power BI & Query Editor

Akrítí Lal

# Power BI Model Based Tool





# PROS & CONS OF MODEL BASED TOOL LIKE POWER BI VS REPORT-BASED TOOL LIKE TABLEAU

**Model Based Tool :** Once defined, the same model can be used for different reports.

**Report Based Tool :** Simple to use, calculations are scoped to a single report only.

PROS

CONS

**Model Based Tool :** A good model that works with many different reports requires more authoring time.

**Report Based Tool :** Requires specific data transformation for every report. These assumes that the input is made by a single table, or something that can be transformed into a single table.







# Power BI Flow - For Best Understanding



## 1. Data : To Connect, Shape and Transform raw data

1\_Sales dashboard - Power BI Desktop



Row ID	Order ID	Order Date	Ship Date	Ship Mode	Customer ID	Customer Name	Segment	Country	City	State	Postal Code
43	CA-2016-101343	Sunday, July 17, 2016	Friday, July 22, 2016	Standard Class	RA-19885	Ruben Ausman	Corporate	United States	Los Angeles	California	9
514	CA-2017-163405	Thursday, December 21, 2017	Monday, December 25, 2017	Standard Class	BN-11515	Bradley Nguyen	Consumer	United States	Los Angeles	California	9
515	CA-2017-163405	Thursday, December 21, 2017	Monday, December 25, 2017	Standard Class	BN-11515	Bradley Nguyen	Consumer	United States	Los Angeles	California	9
1606	US-2016-115819	Tuesday, April 19, 2016	Sunday, April 24, 2016	Second Class	JO-15280	Jas O'Carroll	Consumer	United States	Los Angeles	California	9
1607	US-2016-115819	Tuesday, April 19, 2016	Sunday, April 24, 2016	Second Class	JO-15280	Jas O'Carroll	Consumer	United States	Los Angeles	California	9
1609	US-2016-115819	Tuesday, April 19, 2016	Sunday, April 24, 2016	Second Class	JO-15280	Jas O'Carroll	Consumer	United States	Los Angeles	California	9
1807	US-2016-116729	Sunday, December 25, 2016	Wednesday, December 28, 2016	First Class	GK-14620	Grace Kelly	Corporate	United States	Los Angeles	California	9
2060	CA-2014-106439	Friday, October 31, 2014	Tuesday, November 4, 2014	Standard Class	GG-14650	Greg Guthrie	Corporate	United States	Los Angeles	California	9
2061	CA-2014-106439	Friday, October 31, 2014	Tuesday, November 4, 2014	Standard Class	GG-14650	Greg Guthrie	Corporate	United States	Los Angeles	California	9
2063	CA-2014-106439	Friday, October 31, 2014	Tuesday, November 4, 2014	Standard Class	GG-14650	Greg Guthrie	Corporate	United States	Los Angeles	California	9
2065	CA-2014-106439	Friday, October 31, 2014	Tuesday, November 4, 2014	Standard Class	GG-14650	Greg Guthrie	Corporate	United States	Los Angeles	California	9
2068	CA-2014-106439	Friday, October 31, 2014	Tuesday, November 4, 2014	Standard Class	GG-14650	Greg Guthrie	Corporate	United States	Los Angeles	California	9
2191	CA-2016-118913	Saturday, June 25, 2016	Wednesday, June 29, 2016	Standard Class	AS-10240	Alan Shonely	Consumer	United States	Los Angeles	California	9
2492	CA-2014-113579	Saturday, December 13, 2014	Monday, December 15, 2014	Second Class	KD-16345	Katherine Duchich	Consumer	United States	Los Angeles	California	9
2944	CA-2017-126242	Sunday, November 19, 2017	Friday, November 24, 2017	Standard Class	MC-18100	Mick Crebagga	Consumer	United States	Los Angeles	California	9
3534	CA-2014-110849	Friday, April 18, 2014	Wednesday, April 23, 2014	Standard Class	JL-15835	John Lee	Consumer	United States	Los Angeles	California	9
3535	CA-2014-110849	Friday, April 18, 2014	Wednesday, April 23, 2014	Standard Class	JL-15835	John Lee	Consumer	United States	Los Angeles	California	9
3536	CA-2014-110849	Friday, April 18, 2014	Wednesday, April 23, 2014	Standard Class	JL-15835	John Lee	Consumer	United States	Los Angeles	California	9
3565	CA-2016-130029	Sunday, July 3, 2016	Wednesday, July 6, 2016	First Class	GT-14755	Guy Thornton	Consumer	United States	Los Angeles	California	9
3566	CA-2016-130029	Sunday, July 3, 2016	Wednesday, July 6, 2016	First Class	GT-14755	Guy Thornton	Consumer	United States	Los Angeles	California	9
3759	CA-2015-167745	Friday, September 18, 2015	Wednesday, September 23, 2015	Standard Class	GB-14530	George Bell	Corporate	United States	Los Angeles	California	9
3760	CA-2015-167745	Friday, September 18, 2015	Wednesday, September 23, 2015	Standard Class	GB-14530	George Bell	Corporate	United States	Los Angeles	California	9
3844	CA-2014-101931	Tuesday, October 28, 2014	Friday, October 31, 2014	First Class	TS-21370	Todd Sumrall	Corporate	United States	Los Angeles	California	9
3845	CA-2014-101931	Tuesday, October 28, 2014	Friday, October 31, 2014	First Class	TS-21370	Todd Sumrall	Corporate	United States	Los Angeles	California	9

TABLE: Orders (9,994 rows)

**FIELDS**

Search

Orders

Category

City

Country

Customer ID

Customer Name

Discount

Medium Deal

Order Date

Order ID

Postal Code

Product ID

Product Name

Profit

Profit type

Quantity

Region

Row ID

Sales

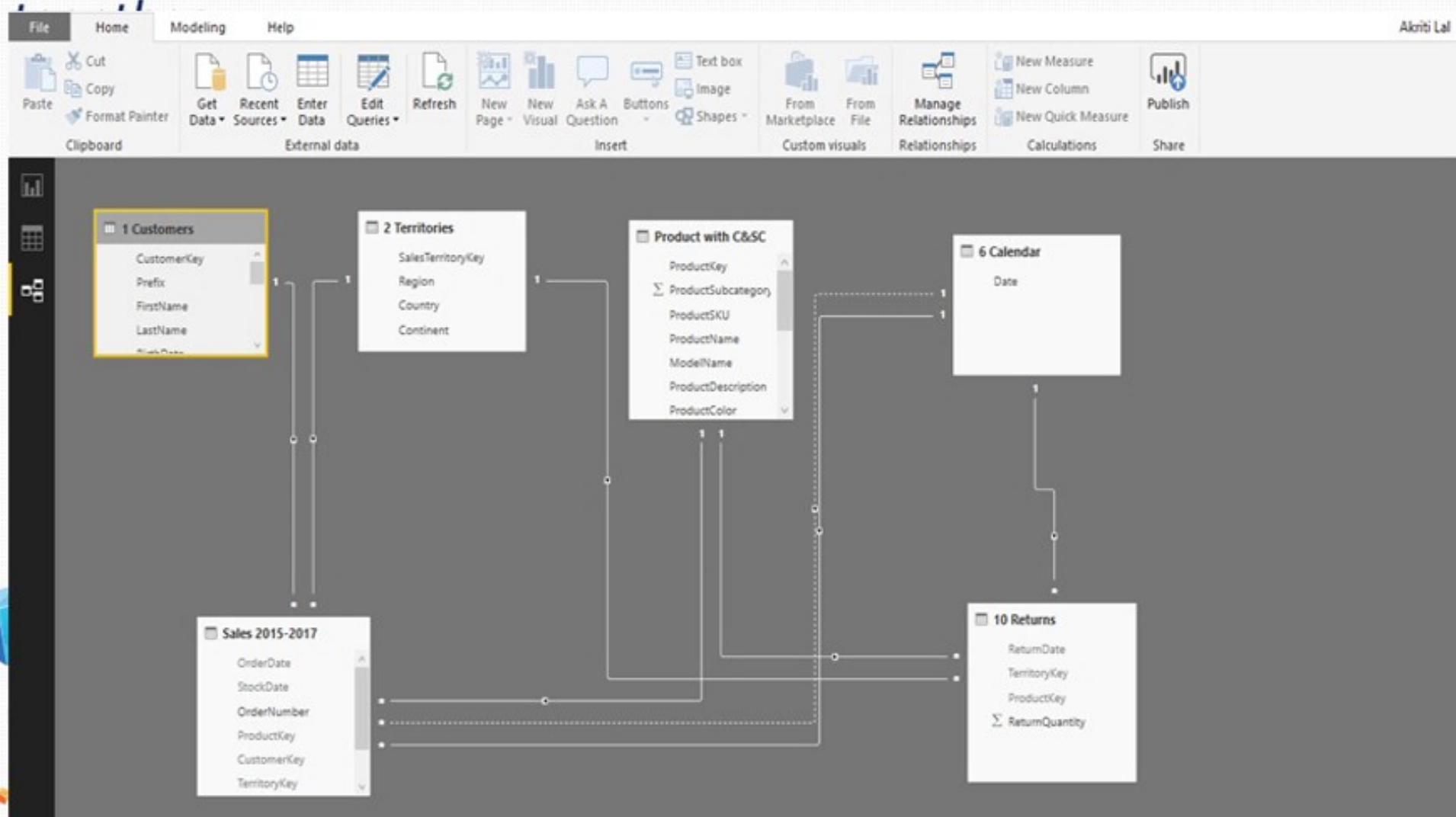
Segment

Ship Date

# Power BI Flow - For Best Understanding



## 2. Relationships/Model: Build Table Relationship to tie them

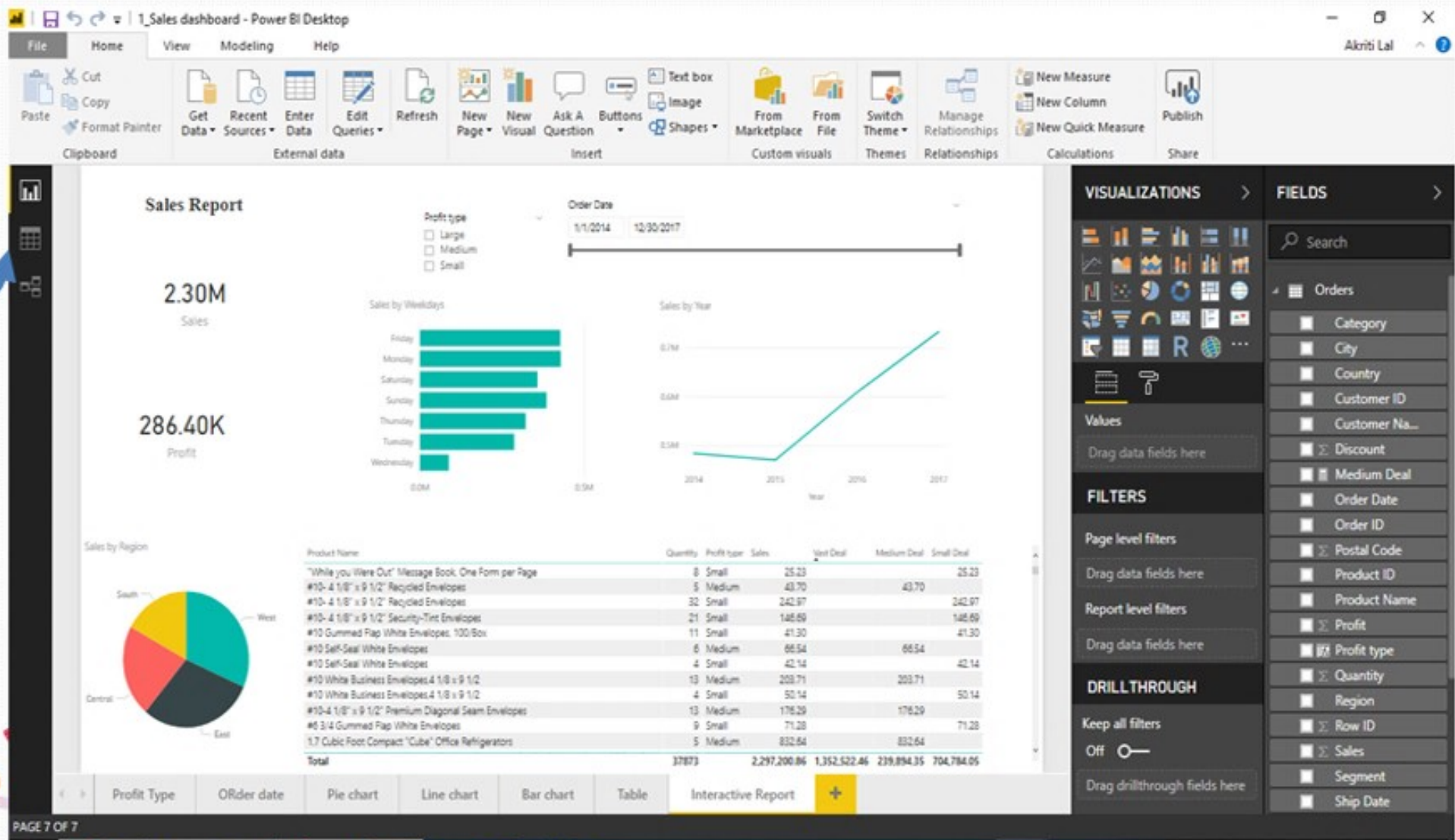




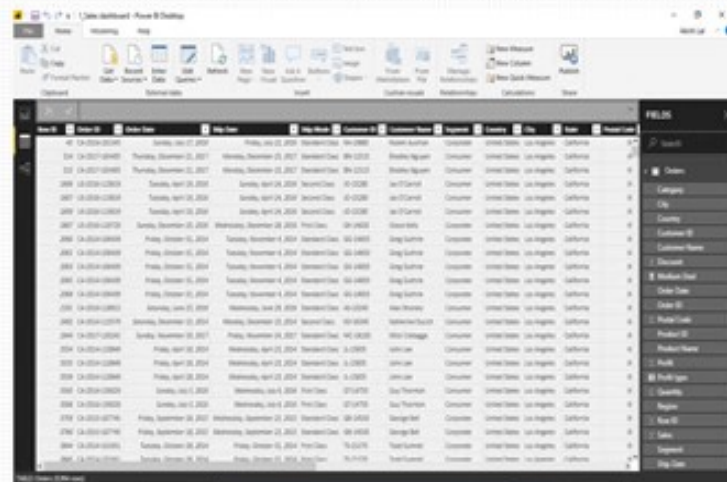
# Power BI Flow - For Best Understanding



## 3 Report : Design interactive reports to explore and visualize data




# Power BI Flow - Summary - For Best Understanding

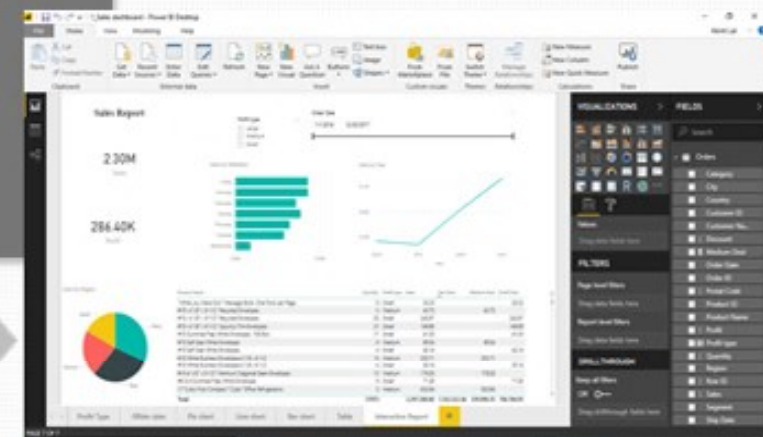


Date	Category	City	Country	Region
2017-10-20	Electronics	San Jose	United States	California
2017-10-21	Electronics	San Jose	United States	California
2017-10-22	Electronics	San Jose	United States	California
2017-10-23	Electronics	San Jose	United States	California
2017-10-24	Electronics	San Jose	United States	California
2017-10-25	Electronics	San Jose	United States	California
2017-10-26	Electronics	San Jose	United States	California
2017-10-27	Electronics	San Jose	United States	California
2017-10-28	Electronics	San Jose	United States	California
2017-10-29	Electronics	San Jose	United States	California
2017-10-30	Electronics	San Jose	United States	California
2017-10-31	Electronics	San Jose	United States	California
2017-11-01	Electronics	San Jose	United States	California
2017-11-02	Electronics	San Jose	United States	California
2017-11-03	Electronics	San Jose	United States	California
2017-11-04	Electronics	San Jose	United States	California
2017-11-05	Electronics	San Jose	United States	California
2017-11-06	Electronics	San Jose	United States	California
2017-11-07	Electronics	San Jose	United States	California
2017-11-08	Electronics	San Jose	United States	California
2017-11-09	Electronics	San Jose	United States	California
2017-11-10	Electronics	San Jose	United States	California
2017-11-11	Electronics	San Jose	United States	California
2017-11-12	Electronics	San Jose	United States	California
2017-11-13	Electronics	San Jose	United States	California
2017-11-14	Electronics	San Jose	United States	California
2017-11-15	Electronics	San Jose	United States	California
2017-11-16	Electronics	San Jose	United States	California
2017-11-17	Electronics	San Jose	United States	California
2017-11-18	Electronics	San Jose	United States	California
2017-11-19	Electronics	San Jose	United States	California
2017-11-20	Electronics	San Jose	United States	California
2017-11-21	Electronics	San Jose	United States	California
2017-11-22	Electronics	San Jose	United States	California
2017-11-23	Electronics	San Jose	United States	California
2017-11-24	Electronics	San Jose	United States	California
2017-11-25	Electronics	San Jose	United States	California
2017-11-26	Electronics	San Jose	United States	California
2017-11-27	Electronics	San Jose	United States	California
2017-11-28	Electronics	San Jose	United States	California
2017-11-29	Electronics	San Jose	United States	California
2017-11-30	Electronics	San Jose	United States	California
2017-12-01	Electronics	San Jose	United States	California
2017-12-02	Electronics	San Jose	United States	California
2017-12-03	Electronics	San Jose	United States	California
2017-12-04	Electronics	San Jose	United States	California
2017-12-05	Electronics	San Jose	United States	California
2017-12-06	Electronics	San Jose	United States	California
2017-12-07	Electronics	San Jose	United States	California
2017-12-08	Electronics	San Jose	United States	California
2017-12-09	Electronics	San Jose	United States	California
2017-12-10	Electronics	San Jose	United States	California
2017-12-11	Electronics	San Jose	United States	California
2017-12-12	Electronics	San Jose	United States	California
2017-12-13	Electronics	San Jose	United States	California
2017-12-14	Electronics	San Jose	United States	California
2017-12-15	Electronics	San Jose	United States	California
2017-12-16	Electronics	San Jose	United States	California
2017-12-17	Electronics	San Jose	United States	California
2017-12-18	Electronics	San Jose	United States	California
2017-12-19	Electronics	San Jose	United States	California
2017-12-20	Electronics	San Jose	United States	California
2017-12-21	Electronics	San Jose	United States	California
2017-12-22	Electronics	San Jose	United States	California
2017-12-23	Electronics	San Jose	United States	California
2017-12-24	Electronics	San Jose	United States	California
2017-12-25	Electronics	San Jose	United States	California
2017-12-26	Electronics	San Jose	United States	California
2017-12-27	Electronics	San Jose	United States	California
2017-12-28	Electronics	San Jose	United States	California
2017-12-29	Electronics	San Jose	United States	California
2017-12-30	Electronics	San Jose	United States	California
2017-12-31	Electronics	San Jose	United States	California

 **1. Data : To Connect, Shape and Transform raw data**



 **2. Relationships : Build Table Relationship to tie them together**



 **3 Report : Design interactive reports to explore and visualize data**



# Power BI - Before we Start - Settings

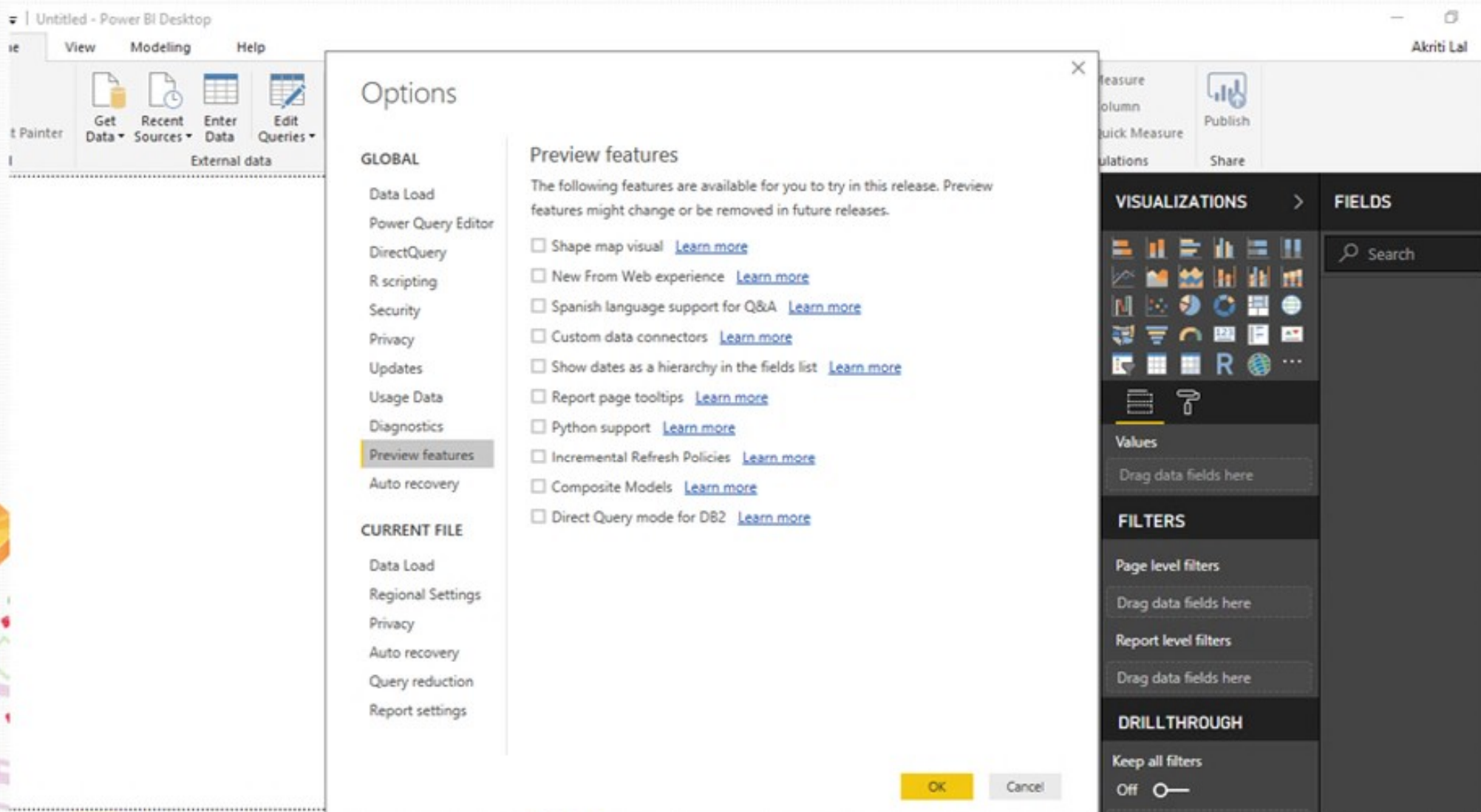






## 1. Power BI Options & Settings

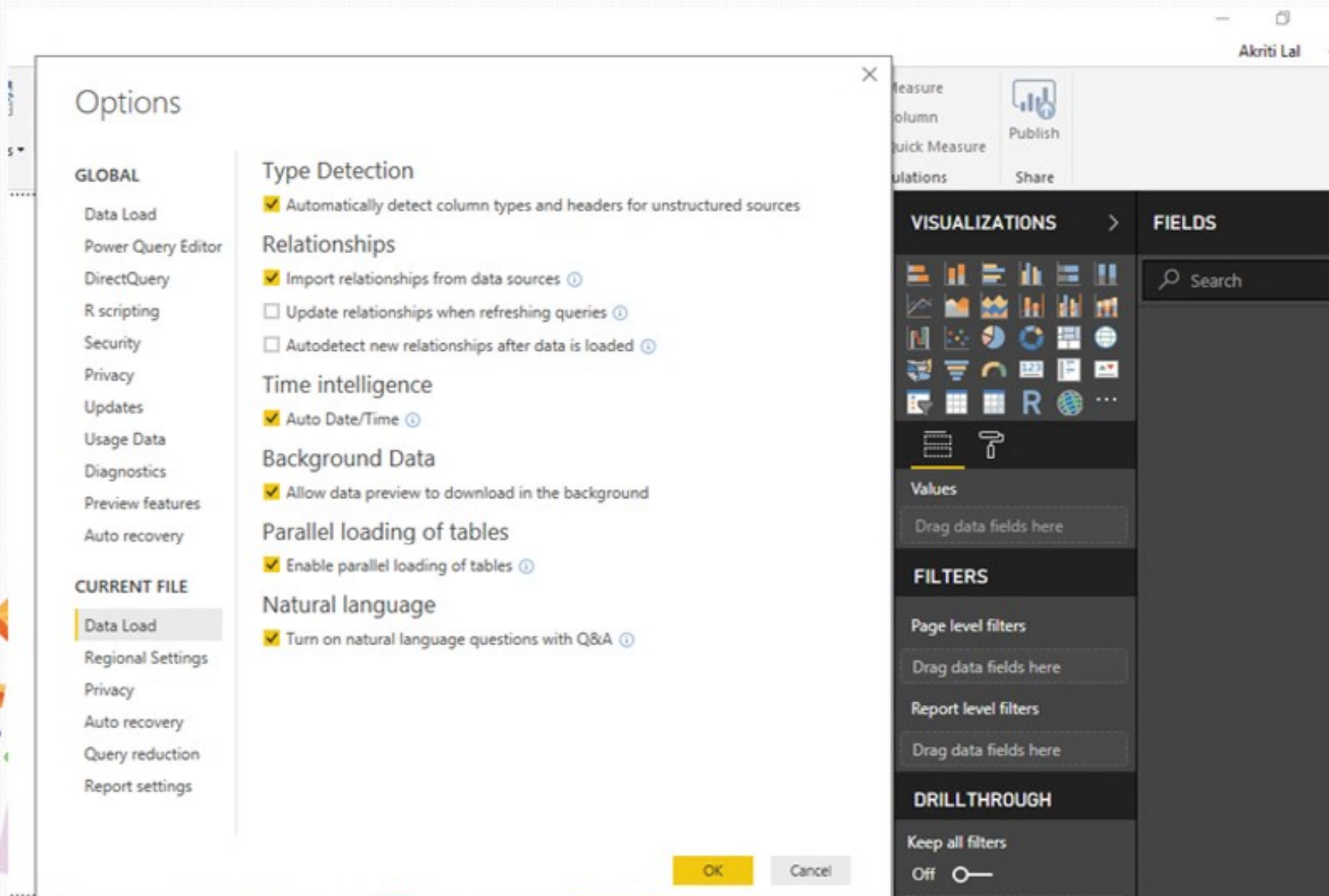
In the “**Preview Features**” tab, deselect any active Preview features while you are taking the course





## 2. Power BI Options & Settings

In the “**Data Load**” tab, **Uncheck** the “*Update relationships*” and “*Autodetect new relationships after data is loaded*” options



### 3. Power BI Options & Settings

In the “**Regional Settings**” tab, make sure to use the “*English (United States)*” locale for import

The image shows the Power BI Options dialog box and the main Power BI interface. The Options dialog box is open to the 'Regional Settings' tab under the 'CURRENT FILE' section. The 'Locale for import' dropdown is set to 'English (United States)'. The main interface shows the 'Visualizations' pane with various chart types and the 'Fields' pane with a search bar and filter sections.

**Options Dialog Box:**

- GLOBAL**
  - Data Load
  - Power Query Editor
  - DirectQuery
  - R scripting
  - Security
  - Privacy
  - Updates
  - Usage Data
  - Diagnostics
  - Preview features
  - Auto recovery
- CURRENT FILE**
  - Data Load
  - Regional Settings**
  - Privacy
  - Auto recovery
  - Query reduction
  - Report settings

**Locale for import**  
Locale determines the regional settings used to interpret numbers, dates, and time in imported text for this file.  
English (United States)

**Main Interface:**

- Visualizations**
  - Measure
  - Column
  - Quick Measure
  - Calculations
  - Publish
  - Share
- Visualizations**
  - Values
    - Drag data fields here
  - FILTERS**
    - Page level filters
      - Drag data fields here
    - Report level filters
      - Drag data fields here
  - DRILLTHROUGH**
    - Keep all filters
      - Off
- Fields**
  - Search