# Lab 2 Model Data in Power BI

Objectives

Time: 20-30 Minutes

1. Organizing tables in the data model
2. Creating relational connections between Fact and Dimension tables
3. Validate filter propagation.
4. Create a doughnut chart showing the count segmentation of resellers based on product category.
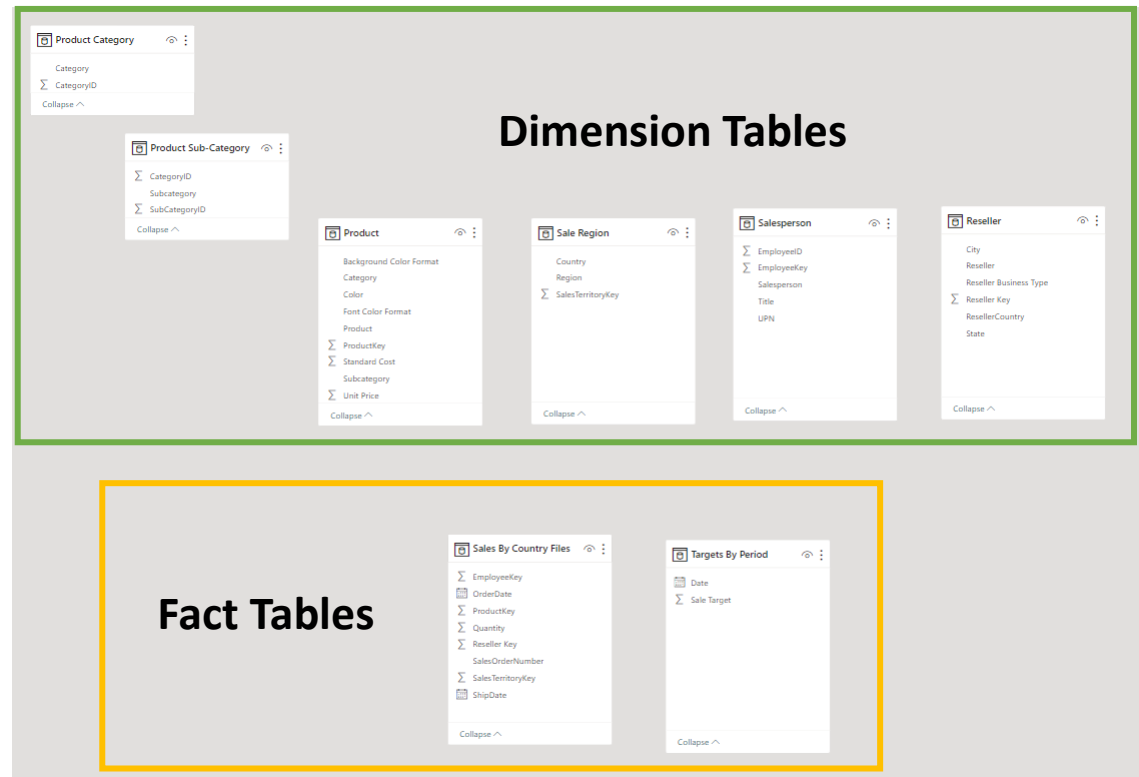
Lab steps

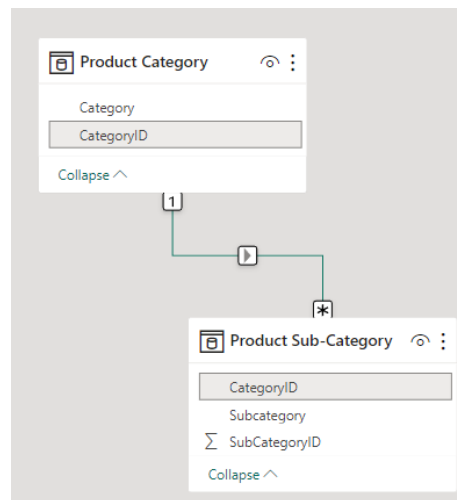| Organizing tables in the data model	
▪ Launch Lab 2 Start Up - Data Modeling Power BI File ▪ Navigate to the Model view.	
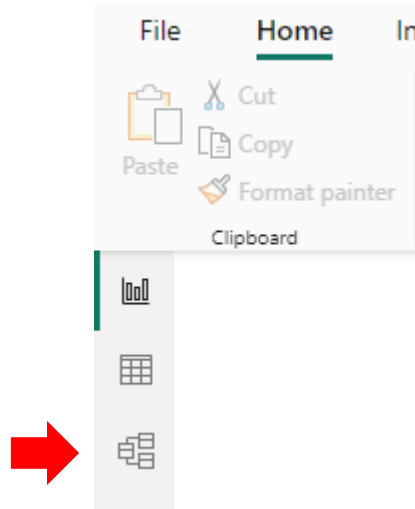
- Organize the data tables separating the dimension tables placing them on the upper part of the model canvas and the Fact tables below.

2) Creating relational connections between Fact and Dimension tables

- Make table connections by connecting the corresponding Primary key from the **Dimension** tables to the **Fact** tables.

- You can use the drag and drop method or from the **Home** tab select Manage relationships.

Drag & Drop Option

Manage Relationship

- Create the following connections.

From		To	
Product Category		**Product Sub-Category**	
PK	CategoryID	FK	CategoryID

From		To	
Product Sub-Category		**Product**	
PK	SubCategoryID	FK	SubCategoryID

From		To	
Product		**Sales By Country Files**	
PK	Product Key	FK	Product Key

From		To	
Sales Region		**Sales By Country Files**	
PK	Sales TerritoryKey	FK	Sales TerritoryKey

From		To	
Salesperson		**Sales By Country Files**	
PK	EmployeeKey	FK	EmployeeKey

From		To	
Reseller		**Sales By Country Files**	
PK	Reseller Key	FK	Reseller Key
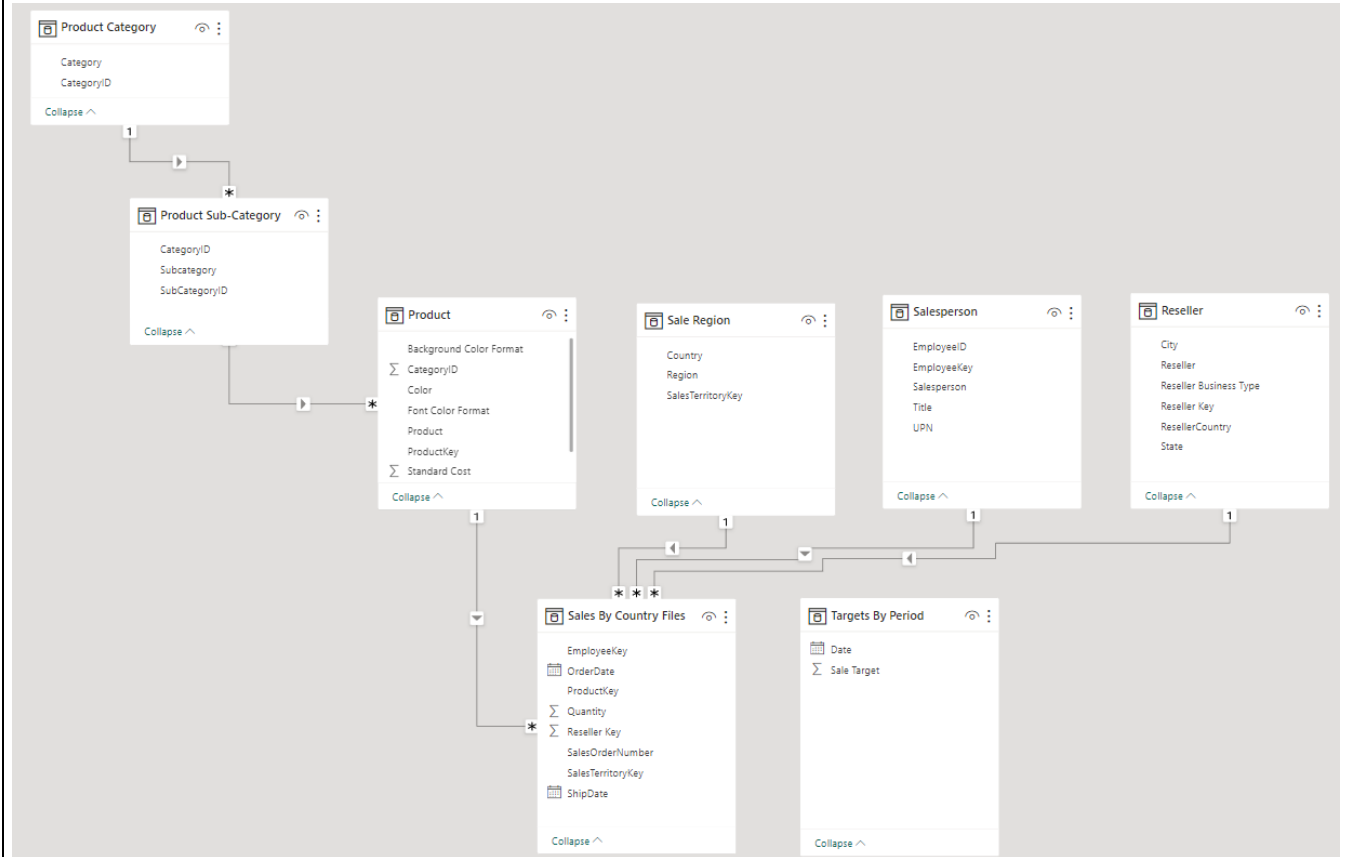
3) Validate filter propagation

- Navigate to the **Report View**

- From the Visualizations pane select the slicer visual and place the category field from the category table into the slicer field

- Place the Subcategory field from the Subcategory table into the slicer field.

- Add a Table visual onto the canvas and Place the Region, Salesperson and Quantity field into the table visual

- Test the slicers to ensure that the filter propagation is working correctly starting with the category slicer.

1

Category

- [ ] Accessories
- [ ] Bikes
- [ ] Clothing
- [ ] Components

2

Subcategory

- [ ] Bib-Shorts
- [ ] Bike Racks
- [ ] Bike Stands
- [ ] Bottles and Cages
- [ ] Bottom Brackets
- [ ] Brakes
- [ ] Caps
- [ ] Chains
- [ ] Cleaners
- [ ] Cranksets

3

Region	Salesperson	Sum of Quantity
Australia	Lynn Tsoflias	1724
Australia	Syed Abbas	746
Canada	Garrett Vargas	2128
Canada	Jae Pak	5253
Canada	Stephen Jiang	460
Central	Jillian Carson	885
Central	Linda Mitchell	844
Central	Michael Blythe	1536
Central	Shu Ito	314
France	Amy Alberts	86
France	Ranjit Varkey Chudukatil	3117
Germany	Amy Alberts	102
Germany	Rachel Valdez	2438
Northeast	Jillian Carson	3316
Northwest	David Campbell	1709
Northwest	Linda Mitchell	754
Northwest	Pamela Ansman-Wolfe	1406
Northwest	Shu Ito	386
Northwest	Stephen Jiang	224
Northwest	Tete Mensa-Annan	1380
Southeast	Jillian Carson	622
Southeast	Stephen Jiang	8
Southeast	Tsvi Reiter	2465
Southwest	Linda Mitchell	3160
Southwest	Michael Blythe	2635
Total		**43664**

4) Create a doughnut chart showing the count segmentation of resellers based on product category

- Place a doughnut chart onto the canvas with the Category field from the Category Table in the Legend and the Reseller field from the reseller table in the values (Reseller should be aggregated to count)

- To get the correct values you will need to change the cross filter in the model view

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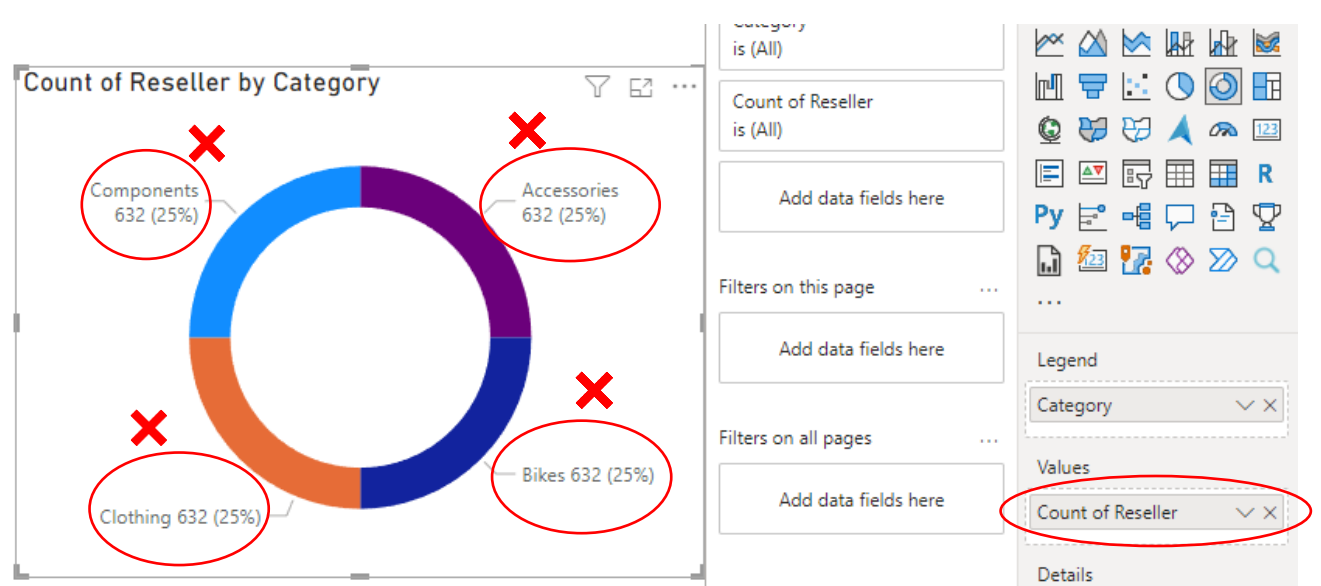
- Click on the connection string between the **Reseller** table and the **Sales by Country Files**

- In the model view from the properties panel change the cross-filter direction from single to both and then apply changes
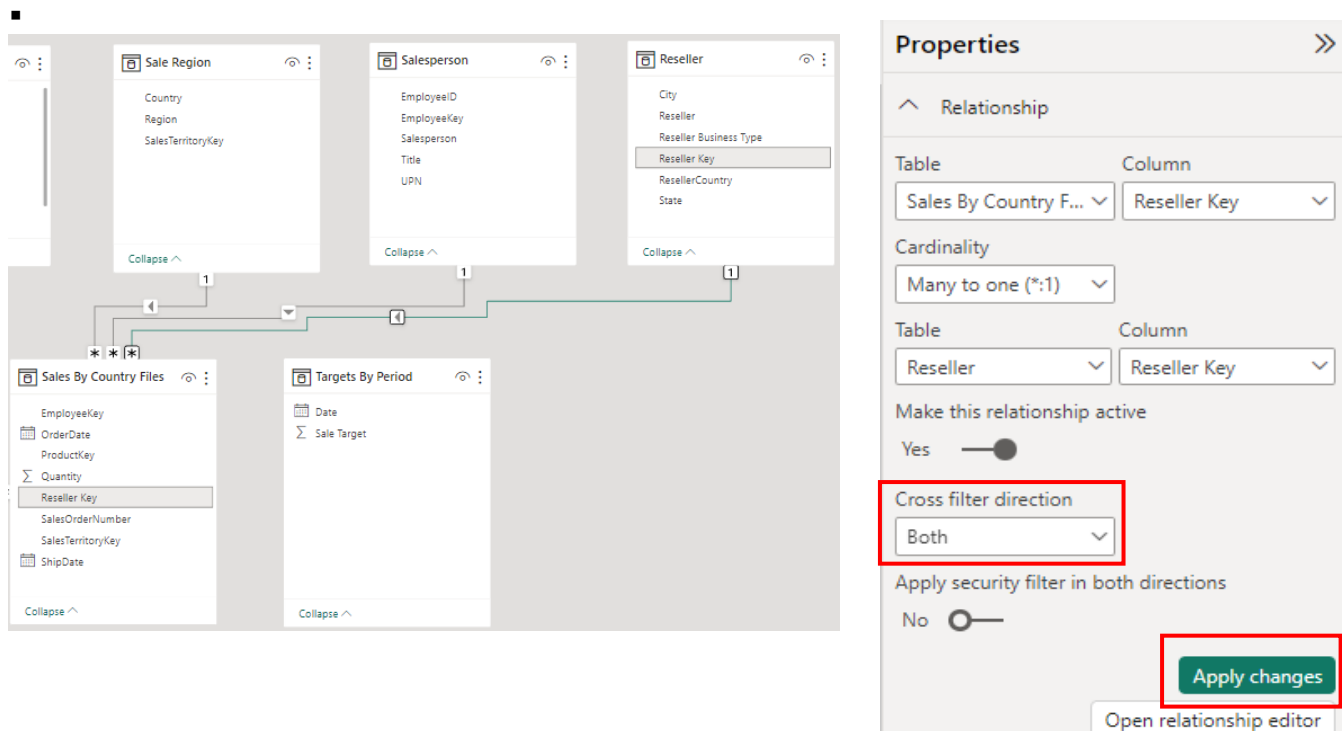
Count of Reseller by Category

Accessories
175 (14.88%)

Bikes
384 (32.65%)

Clothing
300 (25.5...)

Components
317 (26.96%)