**Assignment 2**

**Using your Adventure Works report file, complete the following:**

**1)** Navigate to the **RELATIONSHIPS**view, and perform the following actions:

* Right-click to delete each relationship between **AW\_Sales**, **AW\_Customer\_Lookup** and **AW\_Calendar\_Lookup**(*including both date fields*)
* Use the **Manage Relationships** tool to delete *all* remaining relationships between all tables

**2)** Recreate all table relationships (*using any method you prefer*), and confirm the following:

* Cardinality is **1-to-Many** for all relationships
* Filters are all **One-Way**(*no two-way filters*)
* Filter direction correctly flows "**downstream**" to data tables
* Data tables are **not connected** directly to one another
* Both data tables are connected to **all valid lookup tables**
* Product-related tables follow a **snowflake schema**

**3)** Return to the **REPORT**view, and complete the following:

* Edit (*or insert*) the  matrix visual to show **ReturnQuantity** (*values*) by **CategoryName** (*rows*) from the **AW\_Product\_Category\_Lookup** table
  + *Which category saw the highest volume of returns? How many?*
* Replace **CategoryName** with **Year**from the **AW\_Calendar\_Lookup** table
  + *How many returns do you see in 2015 vs. 2016?*
* Replace **Year** with **FullName** from the **AW\_Customer\_Lookup** table
  + *What do you see, and why?*
* Update the matrix to show both **OrderQuantity** and **ReturnQuantity** (*values*) by **ProductKey** (*rows*) from the **AW\_Product\_Lookup** table
  + *What was the total OrderQuantity for Product #338?*

**4)**Unhide the **ProductKey** field from the **AW\_Returns** tables (*using either the****DATA****or****RELATIONSHIPS****view*):

* In the matrix, replace **ProductKey** from **AW\_Product\_Lookup** with **ProductKey**from the **AW\_Returns** table
  + *Why do we the same repeating values for OrderQuantity?*
* Edit the relationship between **AW\_Returns** and **AW\_Product\_Lookup** to change the cross filter direction from *Single* to *Both*
  + *Why does the visual now show OrderQuantity values by product, even though we are using****ProductKey****from****AW\_Returns****?*
  + *How many orders do we see now for Product #338? What's going on here?*

**5)** Complete the following:

* Change the cross filter direction between **AW\_Returns** and **AW\_Product\_Lookup** back to *single* (*One-Way*)
* Hide the **ProductKey** field in the **AW\_Returns** table from report view (*and any other foreign keys, if necessary*)
* Update the matrix to show **ProductKey** from the **AW\_Product\_Lookup**, rather than **AW\_Returns**
* **Recommendation:** Save a separate backup copy of the .pbix file (*i.e. "AdventureWorks\_Report\_Backup"*)