**Assignment 3**

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

**1)**In the **DATA**view, create the following **calculated columns**:

* In the **AW\_Customer\_Lookup** table, add a new column named "**Customer Priority**" that equals "*Priority*" for customers who are under 50 years old and have an annual income of greater than $100,000, and "*Standard*" otherwise
* In the **AW\_Product\_Lookup** table, add a new column named "**Price Point**", based on the following criteria
  + *If the product price is greater than $500,****Price Point****= "High"*
  + *If the product price is between $100 and $500,****Price Point****= "Mid-Range"*
  + *If the product price is less than or equal to $100,****Price Point****= "Low"*
* In the **AW\_Calendar\_Lookup** table, add a new column named "**Short Day**" to extract and capitalize the first three letters from the **Day Name**column
* In the **AW\_Product\_Lookup** table, add a column named "**SKU Category**" to extract the first two characters from the **ProductSKU** field
  + ***BONUS:****Modify the****SKU Category****function to return any number of characters up to the first dash (****Hint:****You may need to "search" long and hard for that dash...)*

**2)** In the **REPORT** view, create the following **measures** (*Use a matrix visual to match the "****spot check****" values provided*)

* Create a measure named "**Product Models**" to calculate the number of unique product model names
  + ***Spot check:****You should see a total of****119****unique product models*
* Create a measure named "**ALL Returns**" to calculate the grand total number of returns, regardless of the filter context
  + ***Spot check:****You should see a total of****1,809****returns*
* Create a measure to calculate "**% of All Returns**"
  + ***Spot check:****You should see a value of****61.64%****for the****Accessories****product category*
* Create a measure named "**Bike Returns**" to calculate total returns for bikes specifically
  + ***Spot check:****You should see a total of****427****bike returns*
* Create a measure named "**Total Cost**", by multiplying order quantities by product costs at the row-level
  + ***Spot check:****You should see a total cost of****$14,456,986.32***
* Once you've calculated **Total Cost**, create a new measure for "**Total Profit**", defined as the total revenue minus the total cost
  + ***Spot check:****You should see a total profit of****$10,457,580.86***
* Create a measure to calculate Total Orders for the previous month (named "**Prev Month Orders**")
  + ***Spot check:****Create a matrix with "Start of Month" on rows to confirm accuracy*
* Create a measure named "**Order Target**", calculated as a 10% lift over the previous month
  + ***Spot check:****Create a matrix with "Start of Month" on rows to confirm accuracy*
* *Total Returns for the previous month (named "****Prev Month Returns****")*
  + ***Spot check:****Create a matrix with "Start of Month" on rows to confirm accuracy*
* *90-Day Rolling Profit (named "****90-day Rolling Profit****")*
  + ***Spot check:****You should see a 90-day rolling profit of****$2,142,623.27***

**3)** Save a separate backup copy of the .pbix file (*i.e. "****AdventureWorks\_Report\_Backup****"*)