Week 3 Assignment

1. **Power query folding:**

in Power BI's Power Query refers to the process where transformations applied in the Power Query Editor are translated back into native queries (like SQL) that can be executed directly on the data source. This allows for efficient data processing by pushing the workload back to the source system, which often has optimized capabilities for handling large datasets.

When transformations like filtering, joining columns, and grouping data etc. are performed in a power query, it generates a single query of all the transformations that can be sent to the data source (MySQL, SQL), where it is executed. Then the result is returned to the power query for further use in power BI.

Advantages:

1. Performance improvement.
2. Reduced memory usage.
3. Efficiency with large datasets.

Transformations that support power query folding:

1. Filtering.
2. Selecting specific columns.
3. Sorting data.
4. Joining tables.
5. Grouping and aggregating data.
6. Removing duplicates.

Scenarios where power query folding might not occur:

1. Complex transformations: like custom columns.
2. Manual steps.
3. Data source limitation.
4. **What are custom tooltips in power bi ?**

Custom tooltips in Power BI are personalized tooltip pages that you can design and customize to display additional information when a user hovers over a visual. Unlike standard tooltips, which provide basic information (e.g., data labels, series values), custom tooltips allow you to control the content, layout, and visuals shown, providing a richer, more informative experience.

1. How can we use measure in a slicer? Explain with an example.

Method 1: Using a Disconnected Table and a Measure  
 **Create a Disconnected Table:**

* First, create a new table that is not connected to your existing data model.
* This table will contain the options you want in your slicer.

Ex:

ScenarioTable = DATATABLE( "Scenario", STRING, { {"Sales"}, {"Profit"}, {"Cost"} } )

**Create a Slicer Based on the Disconnected Table:**

* Add the Scenario column from ScenarioTable to a slicer in your report.

**Create a Measure to Respond to the Slicer Selection:**

* Now, create a measure that will return different calculations based on the slicer selection.

Selected Scenario Value =

SWITCH(

SELECTEDVALUE(ScenarioTable[Scenario], "None"),

"Sales", SUM(FactInternetSales[SalesAmount]),

"Tax", SUM(FactInternetSales[TaxAmount]),

BLANK()

)

* SWITCH is used here to return different values depending on the selected scenario in the slicer.

**Use the Measure in Visuals:**

* Add the Selected Scenario Value measure to any visual. The visual will now dynamically show the results based on what is selected in the slicer.

**Method 2**: Using a Calculated Column with Measure Logic

**Create a Calculated Column Based on a Measure:**

* While not using the measure directly in the slicer, you can create a calculated column that incorporates the measure logic.

Ex: Sales Category = IF( [SalesAmount] > 100000, "High Sales", "Low Sales" )

**Use the Calculated Column in a Slicer:**

* This new column can then be used in a slicer to filter the data based on the logic you defined in the calculated column.