

Data Analysis Expressions (DAX) Contoso Sales File Assignment

1. Calculate Total SalesAmount on Contoso Sales file.

The screenshot shows the Power BI Desktop interface with the 'Measure tools' tab selected. In the formula bar, the DAX measure `Total SalesAmount = SUM(Sales[SalesAmount])` is defined. The Data pane on the right lists fields from the Sales table, including SalesAmount and TotalSalesAmount. The report canvas is empty, and the status bar at the bottom indicates 'Page 1 of 1'.

2. Create Profit column using arithmetic operator by subtracting SalesAmount and Totalcost.

The screenshot shows the Power BI Desktop interface with the 'Column tools' tab selected. A warning message 'One or more calculated columns need to be manually refreshed.' is displayed. In the formula bar, the DAX calculated column `Profit = Sales[SalesAmount] - Sales[TotalCost]` is defined. The Data pane on the right lists fields from the Sales table, including SalesAmount and TotalCost. The report canvas is empty, and the status bar at the bottom indicates 'Page 1 of 1'.

3. Calculate total profit value for product key 800.

The screenshot shows the Power BI Desktop interface with the 'Measure tools' ribbon tab selected. In the 'Measure tools' pane, a new measure named 'Total Profit for 800' is defined with the following DAX formula:

```
Total Profit for 800 =  
CALCULATE(  
    SUM(Sales[Profit]),  
    Sales[ProductKey] = 800  
)
```

The 'Data' pane on the right side of the screen displays a hierarchical list of fields from the 'Sales' table, including measures like Total Profit for 800, SalesAmount, and SalesQuantity.

4. Replace Contoso Ltd manufacturer name by Contoso Pvt Ltd using DAX function.

The screenshot shows the Power BI Desktop interface with the 'Column tools' ribbon tab selected. In the 'Column tools' pane, a calculated column named 'Updated Manufacturer' is defined with the following DAX formula:

```
Updated Manufacturer =  
SUBSTITUTE(Product[Manufacturer], "Contoso Ltd", "Contoso Pvt Ltd")
```

The 'Data' pane on the right side of the screen displays a hierarchical list of fields from the 'Product' table, including columns like Column, Manufacturer, and ProductName.

5. Create table with start date as mentioned in dataset and end date will be todays' date using DAX.

The screenshot shows the Power BI Desktop interface with the 'Modeling' tab selected. In the 'Table tools' section, a new table named 'DateRangeTable' is being created. The DAX code in the 'Structure' pane is:

```
1 DateRangeTable -  
2 ADDCOLUMNS(  
3     CALENDAR(MIN(Sales[DateKey]), TODAY()),  
4     "Start Date", MIN(Sales[DateKey])),  
5     "End Date", TODAY()  
6 )
```

The 'Visualizations' pane on the right shows various chart and report options. The 'Data' pane lists fields from the 'Calendar' table, including Date, Start Date, and End Date. The bottom navigation bar shows 'Page 1'.

The screenshot shows the Power BI Desktop interface with the 'Modeling' tab selected. In the 'Table tools' section, the 'DateRangeTable' table is now listed. The 'Visualizations' pane on the right shows various chart and report options. The 'Data' pane lists fields from the 'DateRangeTable' table, including Date, Start Date, and End Date. The bottom navigation bar shows 'Page 1'.

6. Perform division operation on SalesAmount and total cost for product key 800.

The screenshot shows the Power BI Desktop interface with the 'Measure tools' tab selected. A new measure named 'Sales to Cost Ratio for 800' is being defined in the 'Structure' pane:

```
1 Sales to Cost Ratio for 800 =  
2 CALCULATE(  
3     DIVIDE(SUM(Sales[SalesAmount]), SUM(Sales[TotalCost])),  
4     Sales[ProductKey] = 800  
5 )
```

The 'Data' pane on the right lists various data fields from the 'Sales' table, including 'Measure' (which is currently selected), 'Profit', 'ReturnAmount', 'ReturnQuantity', 'SalesAmount', 'SalesQuantity', 'Total Profit for ...', 'Total SalesAmo...', 'TotalCost', 'UnitCost', 'UnitPrice', and 'Stores'.