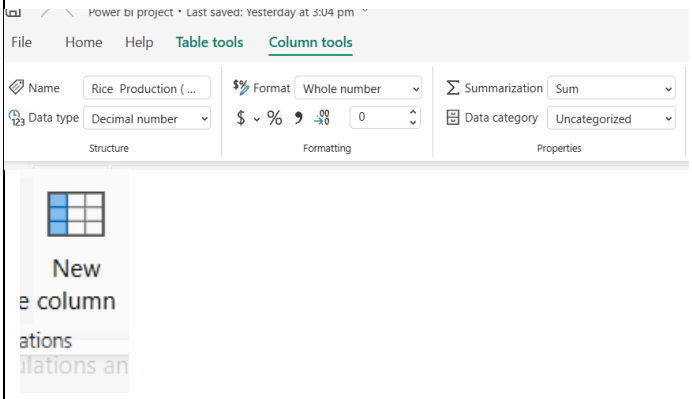
Project Development Phase
Model Performance Test

Date	25 March 2025
Team ID	PNT2025TMID06680
Project Name	Global Food Production Trends and Analysis A Comprehensive Study from 1961 to 2023 Using Power BI
Maximum Marks	

Model Performance Testing:

Project team shall fill the following information in model performance testing template.

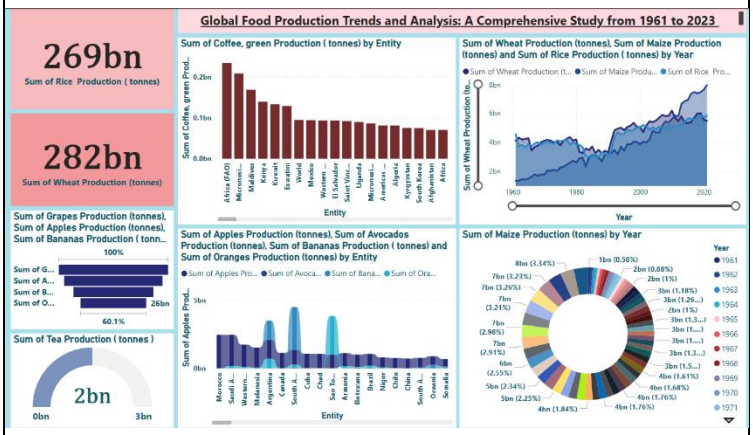
S.No.	Parameter	Screenshot / Values
1.	Data Rendered	24 column and 11912 Rows.
2.	Data Preprocessing	
3.	Utilization of Data Filters	We had shorted the data by giving the data type text, whole no. and the decimal no.
4.	DAX Queries Used	-- Categorizing Regional Production Contribution Regional_Production_Categor y = SWITCH(TRUE(), [Region] IN {"Europe", "Asia"}, "High Contribution", [Region] IN {"North America", "South America"}, "Moderate Contribution", [Region] IN {"Africa", "Oceania"}, "Low Contribution", "Unknown")

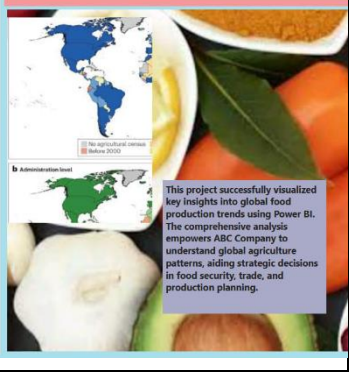
```
-- Identifying High-Production
Fruits
Top_Fruit_Production =
SWITCH(
   TRUE(),
   [Fruit] = "Grapes", "Highest
Production - 43 Billion
Tonnes",
   [Fruit] = "Apples", "High
Production",
   [Fruit] = "Bananas",
"Moderate Production",
   [Fruit] = "Oranges",
"Significant Production",
   "Other Fruits"
)

-- Maize Production Growth
Trend (Post-1980s)
Maize_Growth_Trend =
SWITCH(
   TRUE(),
   [Year] < 1980, "Stable/Low
Growth",
   [Year] >= 1980 && [Year] <
2000, "Moderate Growth",
   [Year] >= 2000, "Consistent
High Growth"
)

-- Total Food Production
Category Based on Volume
Food_Production_Volume =
SWITCH(
   TRUE(),
   [Production_Tonnes] > 40,
"Very High Production",
   [Production_Tonnes] > 20,
"High Production",
   [Production_Tonnes] > 10,
"Moderate Production",
   "Low Production"
)

-- Market Impact Based on
High-Yield Fruits
Market_Impact = SWITCH(
   TRUE(),
   [Fruit] = "Grapes",
"Abundant Supply - Potential
Price Drop",
```

		[Fruit] IN {"Apples", "Bananas", "Oranges"}, "Stable Market - Consistent Demand", "Other Fruits", "Varied Impact") -- Strategic Decision-Making Category for ABC Company Strategic_Insights = SWITCH(TRUE(), [Region] IN {"Europe", "Asia"} && [Production_Tonnes] > 20, "Key Market for Expansion", [Region] IN {"North America", "South America"} && [Production_Tonnes] > 10, "Emerging Market - Growth Potential", [Region] IN {"Africa", "Oceania"} && [Production_Tonnes] < 10, "Developing Market - Limited Influence", "Unknown Strategy")
5.	Dashboard design	

6	Report Design	**REPORT** The total rice production globally from 1961 to 2023 is 269 billion tonnes. The total wheat production globally from 1961 to 2023 is 282 billion tonnes. The total tea production globally from 1961 to 2023 is 2 billion tonnes. Africa, America, and Asia lead in the production of green coffee, with Africa being the top producer followed by America. Wheat, maize, and rice production have all shown a steady increase from 1961 to 2023, with wheat production showing the most significant rise over the years. Apples, avocados, bananas, and oranges are produced in varying quantities by different entities, with countries like Europe and Asia showing significant production volumes. Maize production has consistently increased over the years, with notable jumps around the late 1980s and continuing into the 2000s. Grapes have the highest total production at 43 billion tonnes, followed by apples (39 billion tonnes), bananas (32 billion tonnes), and oranges (26 billion tonnes). **Global Food Production Trends and Analysis: A Comprehensive Study from 1961 to 2023 Using Power BI**  This project successfully visualized key insights into global food production trends using Power BI. The comprehensive analysis empowers ABC Company to understand global agriculture patterns, aiding strategic decisions in food security, trade, and production planning.