

Project Development Phase
Model Performance Test

Date	10 March 2025
Team ID	PNT2025TMID02999
Project Name	Global Malnutrition trends:A Power BI Analysis(1983-2019)
Maximum Marks	

Model Performance Testing:

S.No.	Parameter	Screenshot / Values
1.	Data Rendered	<p>The dataset consists of global malnutrition records from 1983 to 2019, collected from sources like:</p> <ul style="list-style-type: none">WHO – World Health Organization reportsUNICEF – Child nutrition dataWorld Bank – Economic & development indicatorsNational Health Surveys – Regional malnutrition statistics <p>Key Attributes in the Dataset</p> <p>Country/Region – Geographic classification Year (1983-2019) – Time-based trends Malnutrition Types:</p> <ul style="list-style-type: none">Undernourishment (%)Child Stunting (%)Child Wasting (%)Obesity (%)Malnutrition Deaths (Count) <p>Socioeconomic Indicators:</p> <ul style="list-style-type: none">GDP per capitaHealthcare access (%)Food security indexLiteracy rate (%)

2.	Data Preprocessing	<p>Before building the Power BI dashboard, we clean and process the data:</p> <p>Handling Missing Values: Replacing empty fields with mean/median values Dropping irrelevant columns</p> <p>Data Transformation: Standardizing year formats Converting categorical variables</p>
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		<p>Data Normalization: Scaling GDP, literacy, and health indicators for uniform comparison</p> <p>Merging Multiple Data Sources: Combining WHO, UNICEF, and World Bank datasets</p>
3.	Utilization of Data Filters	<p>Power BI provides interactive filters for better analysis:</p> <p>Year-Based Filters: Users can select a specific year or range to observe malnutrition changes.</p> <p>Country/Region Filters: Compare malnutrition rates across different countries or continents.</p> <p>Malnutrition Type Filters: Users can focus on child malnutrition, obesity, or food security indicators.</p> <p>Economic Factor Filters: Assess malnutrition trends in relation to GDP, healthcare access, and food security.</p>
4.	DAX Queries Used	<p>Power BI DAX (Data Analysis Expressions) is used for calculated columns & measures:</p> <p>Average Malnutrition Rate per Decade:</p> <p>Average_Malnutrition = AVERAGEX(FILTER(Data, Data[Year] >= 1980 && Data[Year] <= 1990), Data[Malnutrition Rate])</p> <p>Cumulative Malnutrition Cases Over Time:</p> <p>Cumulative_Cases = CALCULATE(SUM(Data[Malnutrition Cases]), FILTER(ALL(Data), Data[Year] <= MAX(Data[Year])))</p>

5.	Dashboard design	<div><h3>Global Malnutrition Trends (1983-2019) Insights & Analysis</h3><div><div><div>214.00 Sum of Severe Wasting</div><div>3.39K Sum of Stunting</div><div>785.90 Sum of Wasting</div><div>2.08K Sum of Underweight</div><div>563.20 Sum of Overweight</div></div><div><div>Country, Year, Overweight, Underweight, Stunting, S...</div><div>All</div></div><div><div>Avg_Malnutrition_Rate by Year and Wasting</div><div>Wasting 0.7 0.1 1.2 0.13 1.5 1.6 0.17 1.2</div><div></div></div><div><div>Country and Country</div><div>Country # AUSTRALIA AZERBAIJAN BANGLADESH BENIN</div><div></div></div><div><div>Sum of US Population (000s) by Income Classification</div><div>11.4K (14.3%)</div><div>10.2K (16.2%)</div><div>795,000 (25.4%)</div><div></div></div><div><div>Sum of Severe Wasting, Sum of Wasting and Sum of Stunting by Income Classification</div><div>Sum of Severe Wasting Sum of Wasting Sum of Stunting</div><div></div></div><div><div>Sum of Severe Wasting by Country</div><div>BANGLADESH</div><div>MALE</div><div>NIGER (FHE)</div><div>INDIA</div><div></div></div><div><div>Sum of Severe Wasting by Year</div><div></div></div></div></div>
6	Report Design	<div><div>to take action helping others time to take action helping others time to take action helping others time to take action helping other</div><div>Feeding the Hungry Nourishing Hope</div><div></div><div><div>Global Malnutrition Trends: A Power BI Analysis (1983-2019)</div><div><div> 140 Count of US Population (000s)</div><div><div> 11M Sum of Survey Sample (N)</div><div><div> 2.14K Sum of Underweight</div></div><div><div>LIFD, LDC, LLDC or SID2 & Average of Stunting by Income Classification</div><div>Sum of LIFD, LDC, LLDC or SID2 Sum of LIFD, LDC, LLDC or SID2</div><div></div></div><div><div>Income Classification by Income Classification</div><div>15</div><div>78</div><div>48</div><div></div></div><div><div>Sum of Overweight by Country</div><div>Country</div><div>KUWAIT</div><div>URUGUAY</div><div>CHINA</div><div>SOUTH AFRICA</div><div>RUANDA</div><div>UZBEKISTAN</div><div>BOLIVIA (PLU)</div><div>BULGARIA</div><div></div></div><div><div>Underweight/Overweight by Income Classification</div><div>Sum of Underweight Sum of Overweight</div><div></div></div></div></div></div></div>