

Project Design Phase
Proposed Solution Template

Date	24 March 2025
Team ID	PNT2025TMID07094
Project Name	Global Malnutrition Trends: A Power BI Analysis (1983-2019)
Maximum Marks	2 Marks

Proposed Solution Template:

S.No.	Parameter	Description
•	Problem Statement (Problem to be solved)	Malnutrition remains a persistent global challenge, affecting millions across various socio-economic backgrounds. Despite efforts by governments and international organizations, decision-makers face data accessibility issues, fragmented insights, and lack of historical trend analysis to evaluate the effectiveness of interventions.
•	Idea / Solution description	The proposed solution is a Power BI-based analytical dashboard designed to analyze global malnutrition trends from 1983 to 2019. This solution integrates historical data from sources such as WHO, UNICEF, and the World Bank to provide comprehensive insights into malnutrition patterns across different regions and time periods. Through interactive visualizations, users can explore malnutrition trends, identify correlations with socio-economic and health factors, and assess the impact of past interventions. Additionally, the dashboard incorporates predictive analytics to forecast future malnutrition risks, enabling proactive decision-making. By offering a user-friendly interface with dynamic charts, maps, and reports, this solution empowers policymakers, researchers, and NGOs to make data-driven decisions and implement more effective strategies to combat malnutrition worldwide.
•	Novelty / Uniqueness	The novelty of this Power BI-based analytical dashboard lies in its ability to transform raw malnutrition data into interactive, data-driven insights that were previously difficult to access and analyze comprehensively. Unlike traditional static reports, this solution provides real-time trend analysis, predictive modeling, and correlation insights between malnutrition rates and socio-economic, health, and environmental

		<p>factors.</p> <p>Key unique features include:</p> <p>Comprehensive Data Integration: Combines data from multiple global sources (WHO, UNICEF, World Bank) into a single interactive platform.</p> <p>Interactive and Customizable Dashboards: Allows users to explore malnutrition trends dynamically instead of relying on pre-defined reports.</p> <p>Predictive Analytics: Uses machine learning to forecast future malnutrition trends, helping in proactive policy-making.</p> <p>Impact Assessment of Interventions: Analyzes historical policies and programs to measure their effectiveness in reducing malnutrition.</p> <p>User-Centric Design: Tailored for policymakers, NGOs, and researchers, making complex data accessible, visual, and actionable.</p>
<ul style="list-style-type: none"> • 	Social Impact / Customer Satisfaction	<p>The Power BI-based Global Malnutrition Trends Analysis has the potential to create a significant social impact by empowering policymakers, NGOs, and researchers with data-driven insights to combat malnutrition effectively. By providing a clear understanding of historical trends, regional disparities, and predictive analytics, this solution enables targeted interventions that can lead to better health outcomes, reduced child mortality, and improved nutritional policies worldwide.</p> <p>Key Social Benefits:</p> <ul style="list-style-type: none"> ✓ Improved Policy Decisions: Governments and organizations can make informed choices to allocate resources where they are needed most. ✓ Early Detection & Prevention: Predictive analytics helps identify high-risk areas before malnutrition worsens. ✓ Better Intervention Strategies: Evaluates past initiatives, enabling the design of more effective nutrition programs. ✓ Enhanced Public Awareness: Interactive dashboards help raise awareness among stakeholders and the public.

<ul style="list-style-type: none"> • 	Business Model (Revenue Model)	<p>The business model for the Power BI-based Global Malnutrition Trends Analysis platform follows a subscription-based and service-oriented revenue model, targeting governments, NGOs, research institutions, and health organizations. The platform can generate revenue through tiered subscription plans, offering basic, advanced, and premium access with varying levels of data analytics, predictive modeling, and customization. Additionally, customized analytics services can be provided to organizations seeking tailored reports and deeper insights. Enterprise licensing for large-scale institutions and collaborations with international health organizations can further drive revenue. A freemium model may be implemented, where basic analytics are available for free, while advanced features require a paid plan. Other potential revenue streams include consulting services, data partnerships, API integrations, and sponsored research collaborations with health-focused organizations. This model ensures sustainable growth while maximizing the platform's social impact.</p>
<ul style="list-style-type: none"> • 	Scalability of the Solution	<p>The Power BI-based Global Malnutrition Trends Analysis is highly scalable, both in data capacity and user reach. It can integrate real-time data, additional health indicators, and AI-driven predictive analytics, enhancing its ability to track evolving nutritional trends. The platform supports global expansion, catering to governments, NGOs, and research institutions, with multilingual and mobile-friendly accessibility. Its cloud-based architecture allows seamless scaling in terms of storage, processing, and user traffic, while API integrations enhance interoperability with other health and economic platforms. With continuous updates, it has the potential to evolve into a comprehensive global nutrition intelligence system, ensuring long-term sustainability and impact.</p>