Project Design Phase
Proposed Solution Template

Date	17 March 2025
Team ID	PNT2025TMID07288
Project Name	Global Food Production Trends and Analysis: A Comprehensive Study from 1961 to 2023 Using Power BI
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in the proposed solution template.

S.No.	Parameter	Description
1	**Problem Statement (Problem to be solved)**	The global food production industry faces challenges in analyzing long-term trends due to vast datasets, climate change effects, and economic shifts. Decision-makers lack a **centralized, data-driven solution** to extract meaningful insights for strategic planning.
2	**Idea / Solution Description**	A **Power BI-based analytical dashboard** that integrates historical food production data (1961-2023) from multiple sources. It provides **interactive visualizations, predictive analytics, and trend-based insights** for policymakers, researchers, and agricultural stakeholders.
3	**Novelty / Uniqueness**	- **First-of-its-kind Power BI dashboard** for historical and predictive analysis of food production trends. - **Combines machine learning forecasting models** with interactive analytics. - **User-friendly interface** for non-technical stakeholders. - **Custom reporting and real-time updates** for decision-making.
4	**Social Impact / Customer Satisfaction**	- **Improves food security planning** by helping policymakers make informed decisions. - **Assists farmers** in predicting optimal production trends. - **Enhances supply chain management** by providing real-time production forecasts. - **Reduces food waste** by optimizing production planning.
5	**Business Model (Revenue Model)**	- **Subscription-based access** for enterprises and policymakers. - **Freemium model** for basic analytics, with premium features for advanced forecasting. - **Partnership with governments and agricultural research institutions** for funding. - **Custom data analytics services** for agribusinesses.
6	**Scalability of the Solution**	- **Easily adaptable** to new datasets and machine learning models. - **Cloud-based infrastructure** ensures high availability. - **Integration with IoT sensors** for real-time agricultural data collection. - **Potential expansion** to include livestock, fisheries, and regional crop-specific analysis.