Project Design Phase
Proposed Solution Template

Date	4 March 2025
Team ID	PNT2025TMID04288
Project Name	**Global Food Production Trends and Analysis**
Maximum Marks	2 Marks

Proposed Solution Template:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	The project aims to analyze global food production trends from 1961 to 2023, focusing on key agricultural commodities like rice, wheat, maize, coffee, and various fruits. The goal is to derive insights that can help in agricultural decision-making, food security strategies, and supply chain optimization.
2.	Idea / Solution description	Our solution utilizes Power BI to create an interactive dashboard that visualizes global food production trends for key crops such as wheat, rice, maize, tea, coffee, and various fruits. The study provides insights into production volumes, regional contributions, and historical trends to help stakeholders make informed agricultural decisions
3.	Novelty / Uniqueness	- Utilizes historical data (1961-2023) for a comprehensive long-term analysis. - Interactive Power BI dashboards make complex data easy to understand. - Highlights region-wise contributions, production trends, and comparative insights. - Uses a variety of visualizations like area charts, stacked bar charts, and gauge charts for effective data representation
4.	Social Impact / Customer Satisfaction	The insights derived can support policy-makers, farmers, agribusinesses, and food supply chain managers in making data-driven decisions to enhance food production and distribution. By understanding trends, countries can ensure food security, optimize resource allocation, and improve sustainability in agriculture.
5.	Business Model (Revenue Model)	The analysis can be monetized through subscription-based access to data dashboards, customized agricultural insights for businesses, and consulting services for agribusiness firms, government bodies, and NGOs. Additionally, potential partnerships with research institutions and food organizations can drive further value.
6.	Scalability of the Solution	The solution is highly scalable as it can be extended to real-time agricultural data, incorporate machine learning for predictive analysis, and expand datasets to include climate impacts, pricing trends, and regional policies affecting food production. The interactive Power BI model can also be adapted for different industries beyond agriculture.