**Project Initialization and Planning Phase**

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| Date | 15 March 2024 |
| Team ID | SWUID20250197150 |
| Project Title | Global Food Production Trends And Analysis (1961 – 2023) |
| Maximum Marks | 3 Marks |

**Project Proposal (Proposed Solution) template**

This project proposal outlines a solution to address a specific problem. With a clear objective, defined scope, and a concise problem statement, the proposed solution details the approach, key features, and resource requirements, including hardware, software, and personnel.

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| **Project Overview** | |
| Objective | To analyze global food production trends from 1961 to 2023 using Power BI and derive insights into the patterns, growth, and challenges in food production across various countries and commodities. |
| Scope | The project covers data visualization and analysis of global food production statistics from 1961–2023. It includes country-wise and commodity-wise comparisons, identifying trends, growth rates, and correlations between population growth and food availability. |
| **Problem Statement** | |
| Description | With the growing global population and changing climate conditions, food production trends have become inconsistent across regions. There is a lack of clear, data-driven insight into how food production has evolved over time and how countries are adapting to meet demand. |
| Impact | By analyzing historical food production data, policymakers and researchers can identify critical challenges, improve agricultural planning, and promote sustainable food production practices globally. |
| **Proposed Solution** | |
| Approach | Collect and clean FAO (Food and Agriculture Organization) datasets, transform them using Power BI, and build interactive dashboards to visualize trends by year, commodity, and country. The analysis will include measures such as production growth rate, top-producing nations, and category-wise comparisons. |
| Key Features | Interactive Power BI dashboards with filters and visual insights.  Year-wise and region-wise analysis of food production trends.  Visual comparison between countries and food types.  Easy interpretation through charts, graphs, and KPI indicators. |

**Resource Requirements**

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| **Resource Type** | **Description** | **Specification/Allocation** |
| **Hardware** | | |
| Computing Resources | CPU/GPU specifications, number of cores | Dell laptop |
| Memory | 8 GB RAM minimum | 8 GB |
| Storage | 1 TB HDD/SSD (sufficient for dataset & Power BI files) | 1 TB SSD |
| **Software** | | |
| Frameworks | Microsoft Power BI Desktop | Power BI |
| Libraries | Built-in Power BI visual libraries, DAX functions | Data Visualization |
| Development Environment | Power BI Desktop, optional Excel | Power BI Desktop |
| **Data** | | |
| Data | Kaggle dataset:Global food production trends and analysis (1961 – 2023) | Kaggle dataset, images |