**Initial Project Planning Template**

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| Date | 29 September 2025 |
| Team ID | SWUID20250181744 |
| Project Name | Global Food Production Trends and Analysis: A Comprehensive Study from 1961 to 2023 Using Power BI |
| Maximum Marks | 4 Marks |

**Product Backlog, Sprint Schedule, and Estimation (4 Marks)**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Functional Requirement (Epic)** | **User Story Number** | **User Story / Task** | **Story Points** | **Priority** | **Team Members** | **Sprint Start Date** | **Sprint End Date (Planned)** |
|  | Data Collection | USN-1 | As a data engineer, I want to collect global food production data (1961–2023) from FAO and other verified sources so that the dataset is complete and reliable. | 3 | High | Data Engineer, Analyst | 15-Sep-2025 | 18-Sep-2025 |
|  |  | USN-2 | As a data analyst, I want to extract and import the dataset into Power BI for initial validation and structure review. | 2 | High | Data Engineer | 15-Sep-2025 | 18-Sep-2025 |
|  | Data Cleaning & Transformation | USN-3 | As a data analyst, I want to clean and standardize commodity, country, and region names to ensure consistency. | 3 | High | Analyst | 19-Sep-2025 | 22-Sep-2025 |
|  |  | USN-4 | As a data analyst, I want to convert all production units into tonnes and handle missing or incorrect values. | 2 | Medium | Analyst | 19-Sep-2025 | 22-Sep-2025 |
|  |  | USN-5 | As a data modeler, I want to design a star schema (fact + dimension tables) to optimize Power BI performance. | 3 | High | BI Developer | 19-Sep-2025 | 22-Sep-2025 |
|  | Visualization Development | USN-6 | As a BI developer, I want to create trend visuals for wheat, rice, maize, tea, and coffee production across years. | 4 | High | BI Developer, Analyst | 23-Sep-2025 | 26-Sep-2025 |
|  |  | USN-7 | As a designer, I want to design fruit visuals comparing grapes, apples, bananas, and oranges by region. | 3 | Medium | Designer, BI Developer | 23-Sep-2025 | 26-Sep-2025 |
|  | Interactive Dashboard | USN-8 | As a BI developer, I want to integrate all visuals into an interactive Power BI dashboard for easier navigation. | 4 | High | BI Developer | 27-Sep-2025 | 30-Sep-2025 |
|  |  | USN-9 | As a designer, I want to add slicers, filters, and buttons for dynamic exploration and user control. | 3 | High | Designer, BI Developer | 27-Sep-2025 | 30-Sep-2025 |
|  | Documentation & Reporting | USN-10 | As a documentation specialist, I want to prepare a detailed report explaining methodology, insights, and results. | 2 | Medium | Document Specialist | 01-Oct-2025 | 04-Oct-2025 |
|  |  | USN-11 | As a project lead, I want to record a demo video demonstrating dashboard functionality. | 2 | High | Project Lead, Analyst | 01-Oct-2025 | 04-Oct-2025 |
|  | Optimization & Validation | USN-12 | As a QA engineer, I want to test performance, data accuracy, and response time of the dashboard. | 3 | High | QA Engineer | 05-Oct-2025 | 10-Oct-2025 |
|  |  | USN-13 | As a project lead, I want to review, finalize, and deploy the Power BI dashboard for client presentation. | 2 | High | Project Lead | 05-Oct-2025 | 10-Oct-2025 |