

Date	10 March 2025
Team ID	PNT2025TMID02626
Project Name	Global Food Production and Trend Analysis A Comprehensive Study from 1961 to 2023 using power BI
Maximum Marks	4

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Data Collection C Cleaning	Gather historical food production data (1961-2023)
		As a data analyst, I want to integrate global food production data from various sources into power BI.
		Standardize units C formats for analysis
FR-2	Data Processing C Transformation	Aggregate production data by region and crop type
		Calculate yearly growth trends C anomalies
		Prepare dataset for visualization in Power BI
FR-3	Power BI Report Creation	Design interactive dashboards for food production trends
		Create visualizations for staple crops (rice, wheat, maize)
		Develop regional comparison charts for fruit production
FR-4	Insights C Decision Support	Identify key trends in food security C production growth
		Provide data-driven recommendations for stakeholders
		Enable export of reports for business C policy use

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Power BI is a tool that helps people see and understand data using charts, reports, and dashboards. In global food production, it makes decision-making faster, easier, and smarter by showing key information in a clear and interactive way.
NFR-2	Security	keeping this data safe and protected is crucial. Power BI security helps ensure that only the right people can access, view, or change important agricultural data.
NFR-3	Reliability	Reliability in Power BI means that food production data is always accurate, available, and up-to-date so that farmers, researchers, and policymakers can make the right decisions at the right time.
NFR-4	Performance	Power BI reports should load within 5 seconds for optimal user experience, even when handling large datasets.
NFR-5	Availability	The Power BI reports should be accessible 24/7 with minimal downtime, ensuring continuous data availability.
NFR-6	Scalability	The solution should handle growing data volumes and support future integration with additional data sources.