

Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Date	28 February 2025
Team ID	PNT2025TMID04288
Project Name	Global Food Production Trends and Analysis
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Data Import	Uploading Datasets (CSV, Excel) into Power BI, or connecting to databases (SQL, FAO API)
FR-2	Data Transformation	Cleaning and transforming data using Power BI
FR-3	Data Visualization	Creating interactive dashboards and reports (bar charts, gauge charts, area charts, line charts)
FR-4	Data Filtering	Dynamic filters for years, regions, and commodities
FR-5	Data Analysis	Applying DAX measures for insights
FR-6	Report Sharing	Publishing reports on Power BI service, and enabling Row-Level Security.
FR-7	Scheduled Refresh	Automating data updates at predefined intervals to keep insights up-to-date

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Dashboards should be intuitive and easy to navigate, It should contain easy navigation
NFR-2	Security	Implement Row-Level Security (RLS) and Power BI authentication, restrict data access based on user roles
NFR-3	Reliability	Ensure accurate data import and refresh mechanisms.
NFR-4	Performance	Optimize DAX calculations and use query folding for efficiency, optimize data model to ensure fast dashboard loading times
NFR-5	Availability	Schedule data refresh and maintain high uptime in Power BI service