

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

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| Date | 4 March 2025 |
| Team ID | PNT2025TMID02764 |
| Project Name | Power BI Inflation Analysis: Journeying Through Global Economic Terrain |
| 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 Collection | Fetch data from global economic databases (WHO, UNICEF, FAO) |
| | | Allow user-uploaded datasets (CSV, Excel) |
| FR-2 | Data Pre-processing | Handling missing values Standardizing data formats Data transformation (Normalization, Aggregation) |
| FR-3 | Data Storage | Storing raw and processed data in a database Ensuring efficient indexing for retrieval |
| FR-4 | Data Analysis | Generating statistical insights Performing trend analysis |
| FR-5 | Power BI Dashboard | Creating interactive visualizations User-defined filters and drill-down options Exporting reports in various formats |
| FR-6 | User Access & Authentication | Login through Email & Password Social media authentication (Google, LinkedIn) |
| FR-7 | System Notifications | Email notifications for updates Alerts for data inconsistencies |
| FR-8 | Report Generation | Generating country-wise malnutrition reports Comparative analysis over different years |
| FR-9 | User Feedback Collection | Collecting user suggestions Storing and analysing feedback |

Non-functional Requirements:

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

| FR No. | Non-Functional Requirement | Description |
|--------|----------------------------|---|
| NFR-1 | Usability | User-friendly interface with intuitive navigation |
| NFR-2 | Security | Secure authentication, encrypted data storage |
| NFR-3 | Reliability | Ensuring system uptime and fault tolerance |
| NFR-4 | Performance | Optimized data queries for fast dashboard performance |
| NFR-5 | Availability | System accessible 24/7 with minimal downtime |
| NFR-6 | Scalability | Ability to handle increasing data load and users |