**Project Design Phase-II**

**Solution Requirements (Functional & Non-functional)**

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| Date | 31 January 2025 |
| Team ID | PNT2025TMID02554 |
| Project Name | Global Malnutrition Trends: A Power BI Analysis (1983-2019) |
| Maximum Marks | 4 Marks |

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

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| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| FR-1 | Data Collection | Fetch data from global health 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.

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| **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 |