Global Malnutrition Trends: A Power BI Analysis (1983-2019)

Date	10-10-2025
Project Name	Global Malnutrition Trends: A Power BI Analysis (1983-2019)

2.2. Project Proposal (Proposed Solution):

a. Data Integration and Analysis

- Collect and integrate datasets from sources such as WHO, UNICEF, FAO, and World Bank, focusing on indicators like stunting, wasting, underweight, and micronutrient deficiencies.
- Perform data cleaning, transformation, and normalization to ensure cross-country comparability.
- X-malnutrition indicators and factors such as income, education, gender, and urbanization.

b. Predictive Modelling

- Incorporate socio-economic, demographic, and climate-related variables to improve model accuracy.
- Develop predictive dashboards for real-time visualization and tracking.

c. Geographic and Demographic Insights

- Use **geospatial analysis** to map malnutrition prevalence by region and demographic groups.
- Identify "hotspots" of severe malnutrition and regions at risk based on environmental and economic indicators.

d. Policy Recommendation Framework

- Translate data insights into **actionable policy recommendations** for governments, NGOs, and global agencies.
- Suggest targeted intervention strategies such as school feeding programs, agricultural diversification, and maternal nutrition initiatives.
- Create data visualizations and reports tailored for policymakers and stakeholders.

e. Sustainable Monitoring System

- Design a **sustainable monitoring framework** with open-data tools (like Tableau Public or Power BI dashboards) for periodic updates.

- Recommend data-sharing mechanisms to support ongoing collaboration between global organizations.

1. Hardware Requirements

Hardware Component	Specification / Description	Purpose
Computer / Laptop	Processor: Intel i7 / AMD Ryzen 7 or higher; RAM: Minimum 16 GB; Storage: 1 TB SSD	To perform large-scale data analysis and machine learning modelling
External Storage / Cloud Backup	Minimum 500GB capacity	For secure storage of datasets, analysis outputs, and visualization files
Internet Connectivity	Minimum 50 Mbps high-speed connection	For downloading large datasets and accessing global data repositories

2. Software Requirements

Software / Tool	Type	Purpose / Application
Tableau / Power BI	Commercial / Academic	Creation of interactive dashboards and trend visualizations
GitHub / GitLab	Version Control	Collaborative project tracking and code version management
MS WORD	Document	To Prepare the Documents

3. Data Requirements

Data Source / Organization	Type of Data	Purpose / Description
World Health Organization (WHO)	Global nutrition indicators (stunting, wasting, underweight, obesity)	To assess overall malnutrition levels and health outcomes