Project Initialization and Planning Phase

Date	28 July 2025
Team ID	RA
Project Title	Global Malnutrition Trends: A Power BI Analysis (1983–2019)
Maximum Marks	3 Marks

Project Proposal (Proposed Solution) template

This project proposal outlines a solution to address a specific problem. With a clear objective, defined scope, and a concise problem statement, the proposed solution details the approach, key features, and resource requirements, including hardware, software, and personnel.

Project Overview	
Objective	To analyze global malnutrition trends from 1983 to 2019 among children under five, focusing on severe wasting, wasting, stunting, underweight, and overweight conditions. The goal is to uncover how these malnutrition forms vary by country income classifications and other geopolitical categories, using Power BI visualizations to drive policy and intervention strategies.
Scope	This project covers malnutrition data from 1983 to 2019 across various countries, classified by economic tiers (low, lower-middle, upper-middle, high) and special categories (LDC, LIFD, LLDC, SIDS). The scope includes visual data analysis using Power BI to interpret trends, sample sizes, and correlations between income classification and malnutrition types.
Problem Statement	

Description	Malnutrition among children under five remains a severe global health challenge, particularly in low-income countries. It is crucial to identify which malnutrition types are most prevalent in which regions and how they relate to income levels and geographical characteristics.
Impact	Solving this problem helps international stakeholders, including governments and health organizations, prioritize funding and interventions. Data-driven insights enable better targeting of policies aimed at reducing malnutrition and improving health outcomes for vulnerable children.

Proposed Solution	
Approach	We use advanced data visualization tools in Power BI to explore and analyze a UNICEF/WHO/World Bank dataset on child malnutrition. Multiple interactive charts and dashboards are created to explore trends by year, country, and income classification. Scenario-specific metrics and visuals include sample size breakdowns, overweight/underweight distributions, and stunting averages.
Key Features	• Power BI dashboards for dynamic data exploration • Visualization of U5 population sample size (140 observations) • Total survey sample (11 million) to enhance statistical significance • Breakdown of underweight (2,080 cases) • Average stunting rates by income group with economic classification overlays • Country-wise overweight statistics • Comparative visualization of overweight vs. underweight by income group • Income classification analysis with ribbon and stacked visualizations

Resource Requirements

Resource Type	Description	Specification/Allocation
Hardware		
Computing Resources	CPU/GPU specifications, number of cores	Standard laptop
Memory	RAM specifications	8 GB
Storage	Disk space for data, models, and logs	500 GB SSD
Software		
Frameworks	Python frameworks	Power BI Desktop
Libraries	Additional libraries	Power Query, DAX
Development Environment	IDE, version control	Power BI Service, Git (for version control)
Data source		
Data	Source, size, format	Kaggle.com, 299kb,csv