Project Design Phase
Solution Architecture

Date	15 February 2025
Team ID	PNT2025TMID06731
Project Name	Global Malnutrition Trends: A Power BI Analysis (1983-2019)
Maximum Marks	4 Marks

Solution Architecture:

The solution architecture for Global Malnutrition Trends is designed to efficiently collect, process, and visualize malnutrition data from sources like WHO, UNICEF, and World Bank. The data undergoes extraction, transformation, and loading (ETL) using tools like Azure Data Factory, AWS Glue, and Python, ensuring it is cleaned and standardized before storage in Azure Blob, Google BigQuery, or PostgreSQL. Machine learning models, including ARIMA for forecasting and K-Means for clustering, analyze trends and correlations. The insights are then visualized using Power BI or Tableau, providing interactive dashboards with filtering and trend analysis. Security is enforced through RBAC, OAuth authentication, and data encryption, ensuring compliance and secure access to the reports.