Project Design Phase-II
Technology Stack (Architecture & Stack)

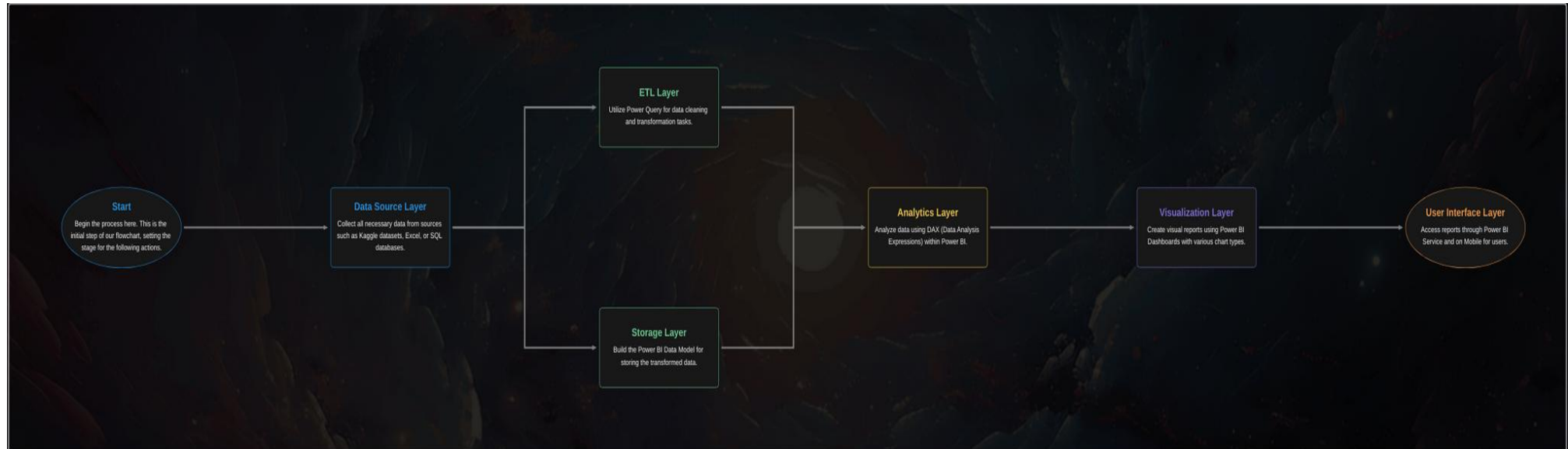| Date	06 March 2025
Team ID	PNT2025TMID00093
Project Name	Power BI Inflation Analysis: Journeying Through Global Economic Terrain
Maximum Marks	4 Marks

Technical Architecture:

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	Data Source Layer	Source of raw inflation data	Kaggle Dataset (CSV, Excel, SQL)
2.	ETL Layer	Extract, clean, and transform data	Power Query in Power BI
3.	Storage Layer	Stores processed data for visualization	Power BI Data Model
4.	Analytics Layer	Performs calculations and analysis	DAX (Data Analysis Expressions)
5.	Processing Engine	Processes queries and optimizes performance	Power BI Engine
6.	Visualization Layer	Displays insights using charts and filters	Power BI Dashboard (Line Charts, Slicers, Reports)
7.	User Interface	Provides access to dashboards and reports	Power BI Desktop, Power BI Service (Web), Power BI Mobile

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1	Usability	User-friendly interface for data exploration	Power BI Desktop, Power BI Service (Web)
2	Security	Role-based access and data protection	Power BI Row-Level Security (RLS)
3	Reliability	Ensures accurate and consistent reporting	Power BI Data Model, Power Query
4	Performance	Optimized data processing for fast insights	Power BI Engine, DAX

S.No	Characteristics	Description	Technology
5	Availability	Access dashboards anytime, anywhere	Power BI Cloud Service, Power BI Mobile
6	Scalability	Supports large datasets and multiple users	Power BI Premium, DirectQuery