Data Collection and Preprocessing Phase

Date	12 December 2025
Team ID	xxxxxx
Project Title	Power BI Inflation Analysis: Journeying Through Global Economic Terrain
Maximum Marks	10 Marks

Data Exploration and Preprocessing

Identifies data sources, assesses quality issues like missing values and duplicates, and implements resolution plans to ensure accurate and reliable analysis.

Section	Description
Data Overview	• The dataset used for this project is the Global Inflation Dataset sourced from Kaggle. • It contains annual inflation rate values for 196 countries covering the period from 1980 to 2024. • The dataset is originally provided in a wide format, with 47 year columns along with country and indicator details. • This dataset enables trend analysis, country-wise comparison, and overall inflation pattern exploration using Power BI.
Data Cleaning	• Missing values in inflation data were identified using Column Quality tools in Power Query. • Blank rows and error rows were removed to prevent issues during visualization. • Duplicate records (if any) were checked and removed

	after unpivoting based on Country and Year. • Unnecessary columns such as the Indicator column were removed as they did not add analytical value.
Data Transformation	• Power Query was used to unpivot year columns to convert the dataset from wide format to long format (Country, Year, InflationRate). • Basic filtering and sorting were applied where required for validation. • A simple Inflation Category column (Low, Moderate, High, Very High) was created using a Conditional Column for categorical analysis.
Data Type Conversion	• The Year column was converted to Whole Number datatype. • The InflationRate column was converted to Decimal Number datatype. • Country name columns were ensured to be of Text datatype to support filtering and grouping.
Column Splitting and Merging	• No column splitting or merging was required for this project. • The dataset structure remained simple, and all required analysis was performed using the transformed long-format table.
Data Modeling	• A single-table data model was used, as the analysis did not require multiple tables or relationships. • Simple aggregations such as Average, Minimum, and Maximum inflation values were handled directly through Power BI visuals without complex measures.

Save Processed Data	• The cleaned and transformed dataset was saved by using Close & Apply in Power Query. • The processed data was loaded into Power BI for building dashboards and visualizations. • This ensures the dataset is reusable for future analysis and reporting.