Data Collection and Preprocessing Phase

Date	19 June 2025
Team ID	Power BI
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	There are two datasets from Kaggle. Global inflation dataset contains Annual Inflation Rate of 196 Countries from 1980 to 2024 and Country Mapping - ISO, Continent, Region dataset which has Country ISO details and region information of the world data.
Data Cleaning	Promoted headers, removed empty and irrelevant rows, renamed columns for clarity, filtered null values, added an index column and created a custom column to categorize inflation rates into High, Moderate, and Low.
Data Transformation	Used Power Query to promote headers, unpivot year-wise inflation columns, rename columns, and add a custom inflation category column.
Data Type Conversion	Corrected data types such as converting year to numeric and inflation rates to decimal formats for accurate modeling.
Column Splitting and Merging	Removed unneeded region dataset columns; aligned and merged country columns from both datasets to establish a unified model.

Data Modeling	Established relationships between the cleaned global inflation and region datasets using the country field. Implemented custom DAX calculations such as InflationRateChange, which measures the percentage change in inflation from the previous year using LOOKUPVALUE; and Adjustedinflation, which scales the inflation rate by a factor of 0.01 for standardized visualization. These calculated fields empower advanced comparative analysis and dynamic reporting across countries and time periods.
Save Processed Data	Final cleaned and merged dataset was saved and loaded into Power BI for dashboard development and analysis.