Data Collection and Preprocessing

Date	05 Oct 2025
Team ID	
Project Title	Power BI Inflation Analysis: Journeying Through Global Economic Terrain
Maximum Marks	10 Marks

Data Overview

The dataset consists of global inflation data collected from Kaggle, covering multiple countries and years. It includes country-wise and year-wise inflation rates, with additional columns such as inflation categories and adjusted inflation values. The data is primarily in CSV format and requires cleaning and transformation to enable accurate analysis.

Data Cleaning

- Identified missing values in some country-year records, handled by imputing regional averages or excluding incomplete rows.

- Removed duplicate entries based on country and year to avoid double counting.

- Corrected certain outliers and inconsistent inflation values by cross-referencing with official data where available.

Data Transformation

- Utilized Power Query Editor in Power BI for filtering irrelevant columns and sorting data chronologically.

- Created calculated columns such as inflation rate categories (low, moderate, high) based on threshold values.

- Pivoted some data tables to align years as columns for specific comparative visualizations.

Data Type Conversion

- Ensured all columns had correct data types: country names as text, year as integer, inflation rates as decimal numbers.

- Converted any wrongly typed columns to appropriate formats to facilitate calculations and filtering.

Column Splitting and Merging

- Split combined location information into separate country and region columns for better grouping and filtering.

- Merged related columns of actual inflation and adjusted inflation rates into a consolidated table with clear labels.

Data Modeling

- Established relationships between inflation tables and regional mapping tables based on the country key.

- Created DAX measures for KPIs such as average inflation rate, inflation category, and year-over-year inflation change.

Save Processed Data

- Saved the cleaned, transformed, and modeled data as a Power BI (.pbix) file.

- Exported a backup clean CSV file for future reuse and sharing among team members.

This structured preprocessing ensures accurate, high-quality data for meaningful inflation trend analysis and interactive visualization in Power BI.