

## Data Collection and Preprocessing Phase

Date	2 May 2025- 3 May 2025
Team ID	XXXXXX
Project Title	Global Food Production Trends and Analysis: A Comprehensive Study from 1961 to 2023 Using Power Bi
Maximum Marks	10 Marks

## Data Exploration and Preprocessing Template

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 covers global food production metrics from 1961 to 2023. It includes country-wise data on food items, production quantities, and associated variables such as year and category.
Data Cleaning	Missing values were identified and handled; duplicates were removed, and inconsistent naming (e.g., country or crop names) was corrected
Data Transformation	Power Query was used for filtering specific regions or time periods, sorting by production volume, pivoting data by crop types, and calculating totals or averages.
Data Type Conversion	Ensured appropriate data types: numeric for production values, text for country/crop names, and date/time for year fields
Column Splitting and Merging	Split combined fields (e.g., "Item: Wheat") into separate "Item Category" and "Item Name"; merged year and month if split.
Data Modeling	Created relationships between tables like Countries, Crops, and Production_Values. Measures were created to track trends, CAGR, top producers, etc..

Save Processed Data

The processed dataset was saved as a Power BI Data Model and created for visualization and further analysis..