🔨 Process Documentation – COVID-19 Food Consumption Analysis

This document outlines the step-by-step process used to handle the COVID-19 Food Consumption dataset, including data acquisition, cleaning, transformation, and visualization. The goal was to analyze food consumption trends across different time periods and categories.

1 Data Acquisition

• The dataset was sourced from Kaggle, ensuring anonymity while preserving essential insights.

• The file format was Excel (.xlsx), which was downloaded and stored locally before processing.

• The data was explored in Excel for initial review and structuring.

2 Data Cleaning & Preparation

• The dataset was loaded into Excel for preliminary formatting, identifying missing values and inconsistencies.

- • Cleaning steps included:
- - Removing duplicate records to ensure accuracy.
- - Standardizing date formats to ensure consistency.
- - Aggregating food consumption values by month, category, and sub-category.

3 Data Analysis

• The dataset was imported into Tableau for visual analysis and dashboard creation.

- • Key insights derived included:
- - Average consumption before, during, and after the pandemic.
- - Identifying the most consumed food categories and sub-categories.
- - Seasonal trends and fluctuations in food demand.

4 Data Export & Transformation

• The processed dataset was structured to ensure seamless integration into Tableau.

- • Additional transformations performed included:
- - Creating calculated fields to measure percentage changes in consumption.
- - Establishing filters for category-specific deep dives.

5 Data Visualization in Tableau

• The cleaned dataset was used to develop a dynamic Tableau dashboard showcasing key trends and comparisons.

- • Visualizations included:
- - Consumption trends over time (line chart).
- - Category-wise breakdown of food consumption (bar charts).
- - Pandemic period comparisons (aggregated visual insights).

6️⃣ Key Learnings & Actionable Insights

• Pandemic Impact: Consumption patterns changed significantly before, during, and after the pandemic.

• Top Consumed Items: Bakery products and soft drinks had the highest consumption levels.

• Seasonal Variations: Food demand fluctuated seasonally, with spikes in certain months.

- • Actionable Recommendations:
- - Monitor category-wise trends for forecasting supply chain needs.
- - Optimize inventory for high-demand periods.
- - Adjust marketing strategies based on food consumption trends.