

**Specialization:** *Statistics & Forecasting*

**Business Focus:** *Hospitality*

**Tool:** *Microsoft Excel*

# PLATES AND CRAVINGS SALES ANALYSIS & FORECAST

## Project Learning Opportunities

*In this project, participants will analyze real-world food order data from \*Plates & Cravings\* to uncover customer trends, evaluate the impact of promotions and pricing, and apply Excel-based forecasting techniques to predict future demand and support data-driven business decisions.*

## Tools and Technology to be Used

*Descriptive Statistics  
Forecasting Techniques  
Pivot Tables and Formulas  
Data Analysis Toolpak  
Forecast Sheet*





## Case Study Overview

### Introduction to the Business

Plates & Cravings is a dynamic food brand offering a rich blend of **authentic Nigerian and African dishes**, complemented by a selection of **international cuisine, desserts**, and **snacks**. Founded with a passion for flavor, culture, and creativity, our goal is to serve meals that **satisfy** both **everyday cravings** and **special occasions**.

We cater to a diverse customer base looking for **home-cooked goodness**, **global tastes**, and **indulgent treats**—all under one roof. Whether it's a traditional jollof rice plate, an Asian-inspired stir fry, or a decadent dessert, **Plates & Cravings delivers delicious, memorable food experiences** with a focus on **quality, freshness**, and **cultural pride**.







## Case Study Overview

### Problem Statement

As demand for diverse meals grows, **Plates & Cravings** faces the **challenge** of **accurately predicting customer orders** across its varied menu, which includes Nigerian/African dishes, international cuisine, and desserts. **Fluctuating order volumes**, influenced by **pricing**, **promotions**, and **seasonal trends**, make it difficult to plan inventory, **reduce food waste**, and **meet customer expectations** consistently.

To **optimize operations** and **minimize losses**, there is a pressing need for a data-driven forecasting solution that can **anticipate demand patterns**, assess the impact of promotional efforts, and support **strategic decisions** in production and supply chain planning.



## Rationale for the Project

(What is the Importance of the project to the business)

1.

Provide a descriptive overview of the business's current performance.



2.

Conduct Price Sensitivity Analysis to explore how demand changes with price, and time



3.

Analyze trends and forecast orders for the four weeks (Month).





## Case Study Objectives

(What the business wants to know about)

### 1. Descriptive Statistics

- What is the average number of orders per meal?
- Which meals or centers have the highest variability in demand?

### 2. Promotion Impact Analysis

- Does featuring a meal on the homepage increase order volume?
- Are email promotions effective in increasing orders?

### 3. Price Sensitivity

- Analyze how demand changes with price (***checkout\_price vs num\_orders***).
- Use correlation

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### 5. Forecasting Orders

- Forecast orders for the next 4 weeks to help with production planning.
- Use Naïve, Moving Averages, Exponential Smoothing, and Excel's Forecast Sheet.

### 6. Insights and Recommendations

- Which meals should be promoted more? Should discounts be increased or decreased? Which centers might need more inventory based on expected demand?



## Tech Stack

STATISTICS

PIVOT  
TABLES

DATA  
ANALYSIS  
TOOLPAK

VISUALS



# Project Workflow

## STEP 1

### 1. BUSINESS UNDERSTANDING

Begin by understanding Plates and Cravings' goals and the challenges being faced.



## STEP 2

### 2. DATA UNDERSTANDING

Review the raw dataset to get familiar with its structure, identify key fields, and their relevance to addressing the business problem



## STEP 3

### 3. DESCRIPTIVE STATISTICS OVERVIEW

Summarize data using pivot tables, ensuring an accurate representation of the entire data, and focusing on business objectives. Also apply statistics for extensive exploration of data to address business needs



## STEP 4

### 4. FORECASTING

Execute orders forecast from data, capturing trend and seasonality in the data. Try multiple approaches, and pick the best suited approach for the case study



## STEP 5

### 5. DELIVERABLE PREPARATION

Present a detailed report on findings of analysis, must suited forecasting approach, and recommendations to the business





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