SQL · POWER BI · DATA ANALYTICS

Pizza Runner

SQL Exploratory Data Analysis & Power BI Dashboard Project

Project Overview

An end-to-end data analytics workflow using a synthetic food delivery dataset. The objective: clean operational data with SQL, perform exploratory data analysis, and build an interactive Power BI dashboard.

The dataset mirrors real-world delivery operations — customer orders, runners, pizzas, recipes, and delivery activity.

Tools & Technologies
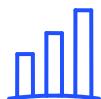
PostgreSQL

Database engine for storing and querying delivery data

SQL & pgAdmin

Data cleaning, transformation, and exploratory analysis

Microsoft Power BI

Data modelling, relationships, and interactive dashboard development

Made with GAMMA

Data Source & Import

Synthetic, Real-World Modeled

The dataset was created for learning and portfolio purposes but closely reflects real food delivery processes:

- Order placement & cancellations
- Delivery durations & distances
- Order customisation (extras & exclusions)

Data was imported via Power BI's PostgreSQL connector, with table relationships verified in the data model.

Data Cleaning Process

Several quality issues were resolved in SQL before analysis:

1

Null Standardisation

Empty strings and text 'null' converted to proper NULL values

2

Format Corrections

Extra spaces and inconsistent comma formatting in extras/exclusions fixed

3

Regex Cleaning

Non-numeric characters removed from distance and duration fields

4

Type Conversion

Pickup times cast to proper timestamps; recipe toppings standardised

EDA: Key Metrics at a Glance

64

Total Pizzas

Ordered across all transactions

56

Unique Orders

Distinct customer orders placed

3

Runners

Active delivery runners in the dataset

SQL queries answered critical business questions — from delivery success rates per runner to pizza preferences by customer, maximum pizzas in a single order, and order customisation patterns.

EDA: Order Patterns & Preferences

🕐 Timing Insights
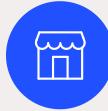
Order volume was analysed by **hour of day** and **day of the week**, revealing peak demand windows for operational planning.

🍕 Customisation Analysis

Orders were categorised by changes — extras, exclusions, or both — to understand customer behaviour and kitchen complexity.

Key Dashboard KPIs

Total Orders

Total Pizzas Ordered

Accepted Orders %

Avg Delivery Duration

Orders per Runner

Customisation %

Made with GAMMA

Power BI Visuals

- **Line Chart**

 Average delivery time by day of the week

- **Bar Charts**
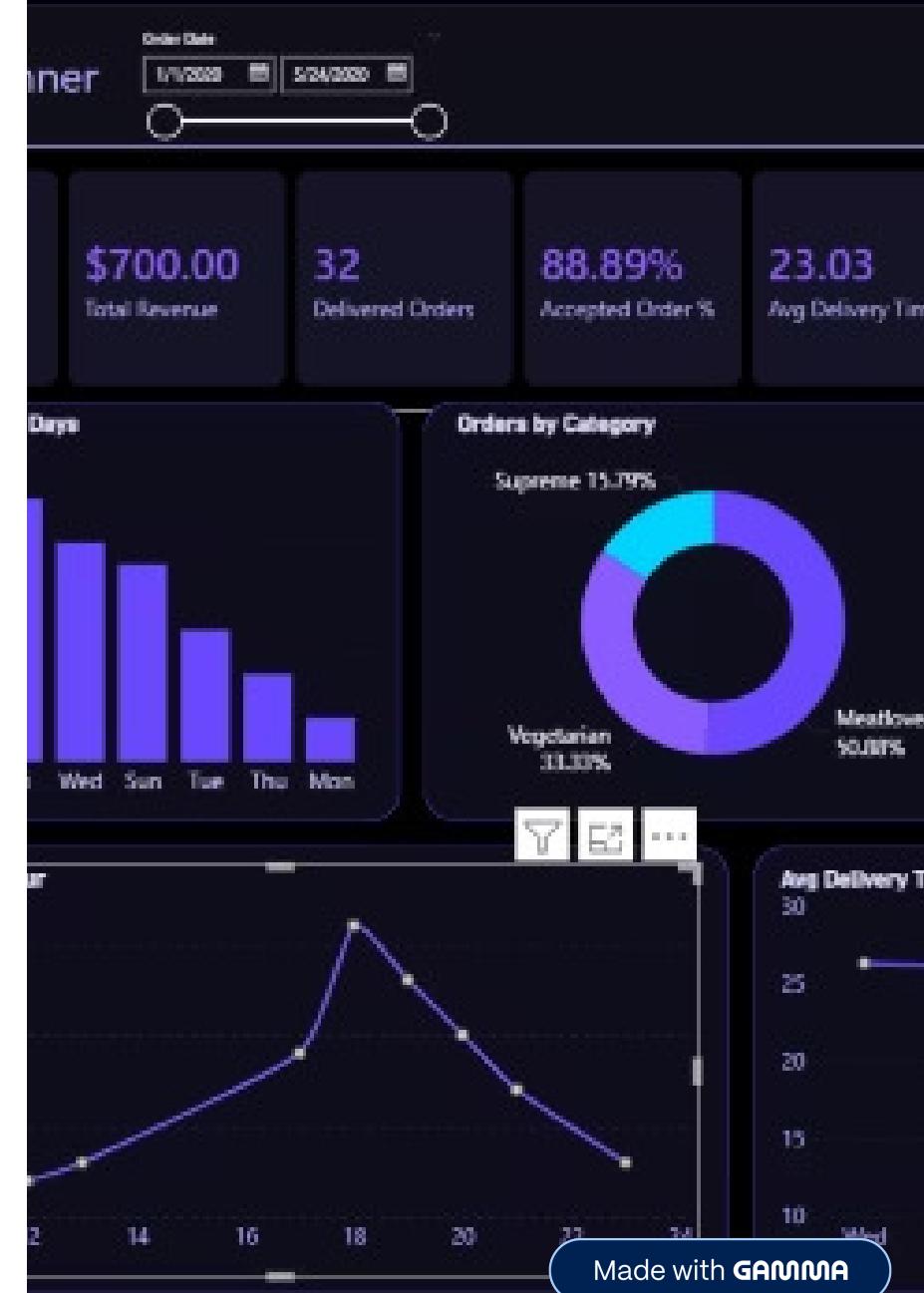
  Orders per runner and pizza types delivered

- **Time Analysis**

  Orders broken down by hour and day

- **KPI Cards**

  Summarising key operational metrics at a glance

Outcome & Value

What This Project Demonstrates

- Strong SQL data preparation skills

- Real-world data modelling concepts

- Translating business questions into actionable dashboards

The workflow mirrors typical analytics processes used in **logistics and food delivery companies**.