End-to-End Q-Commerce Sales & Analytics

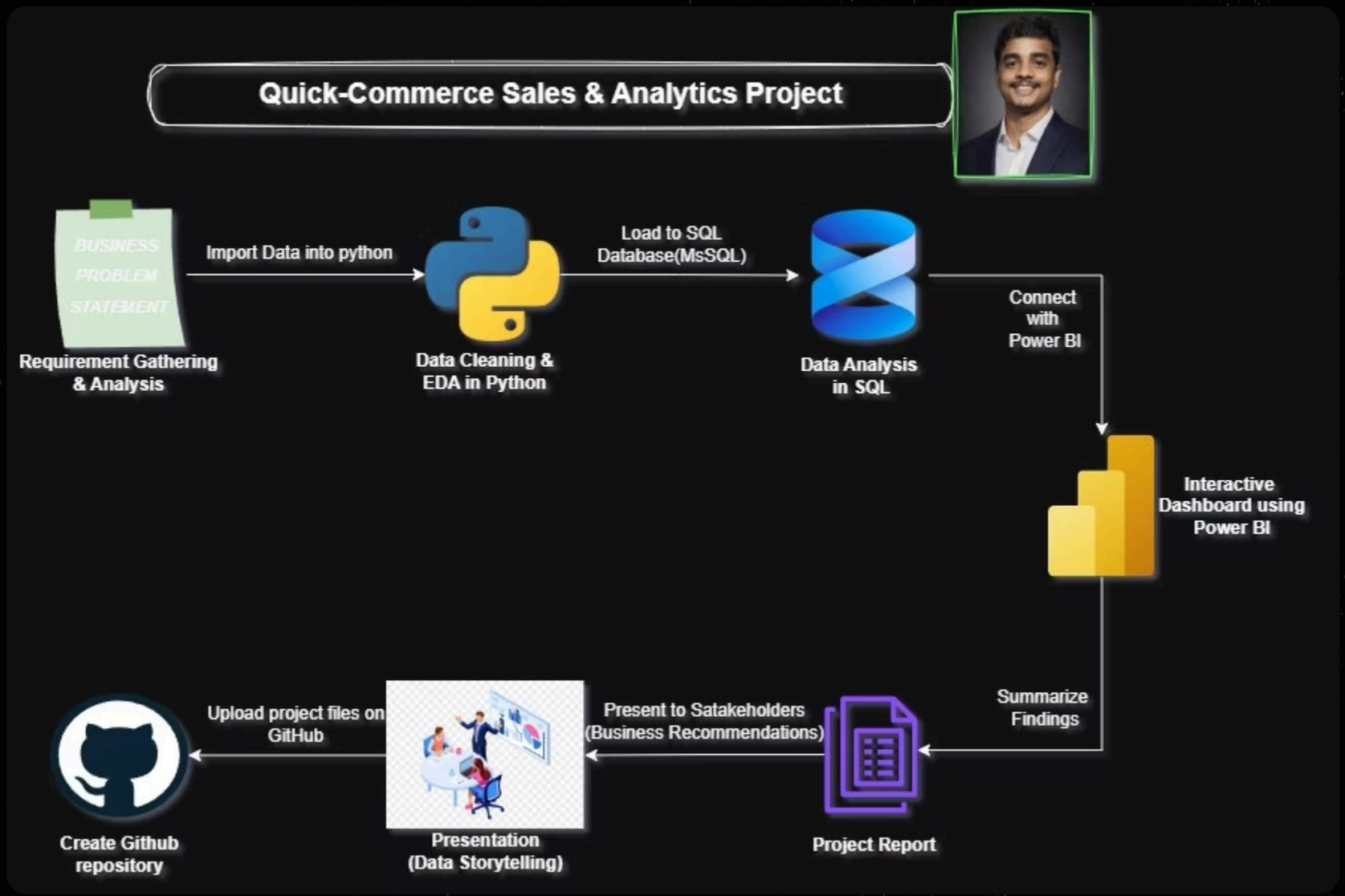
A comprehensive project demonstrating data analytics workflow for quick-commerce performance.

PYTHON SQL SERVER POWER BI

Project Workflow

The workflow designed for this project covers the

entire data analytics lifecycle.



Business Problem: Q-Commerce Challenges

A Q-commerce company faces challenges with delivery delays, inconsistent service, refund requests, and uneven performance across platforms and categories.

Delivery Delays

Impacts customer satisfaction and operational efficiency.

Inconsistent Service

Varying quality across different delivery platforms.

Refund Requests

Indicates issues with order fulfillment or product quality.

The main objective is to identify trends and provide actionable business recommendations using order, delivery, and customer interaction data.

Data Description

Q-Commerce Order Records Dataset

Identifiers

order_id, customer_id

Order Details

platform, delivery_time, product_category

Performance Metrics

order_value, service_rating, delivery_delay

Customer Insights

customer_feedback, refund_requested, order_value_segmentation

What I Did in This Project

01

Data Preparation & EDA (Python)

Loaded dataset, renamed columns, handled missing values, performed exploratory analysis, and created derived features like order value segmentation.

02

Data Analysis (SQL Server)

Loaded cleaned data, wrote queries for platform-wise orders, revenue, delivery delays, refund requests, service ratings, customer segmentation, and contribution analysis.

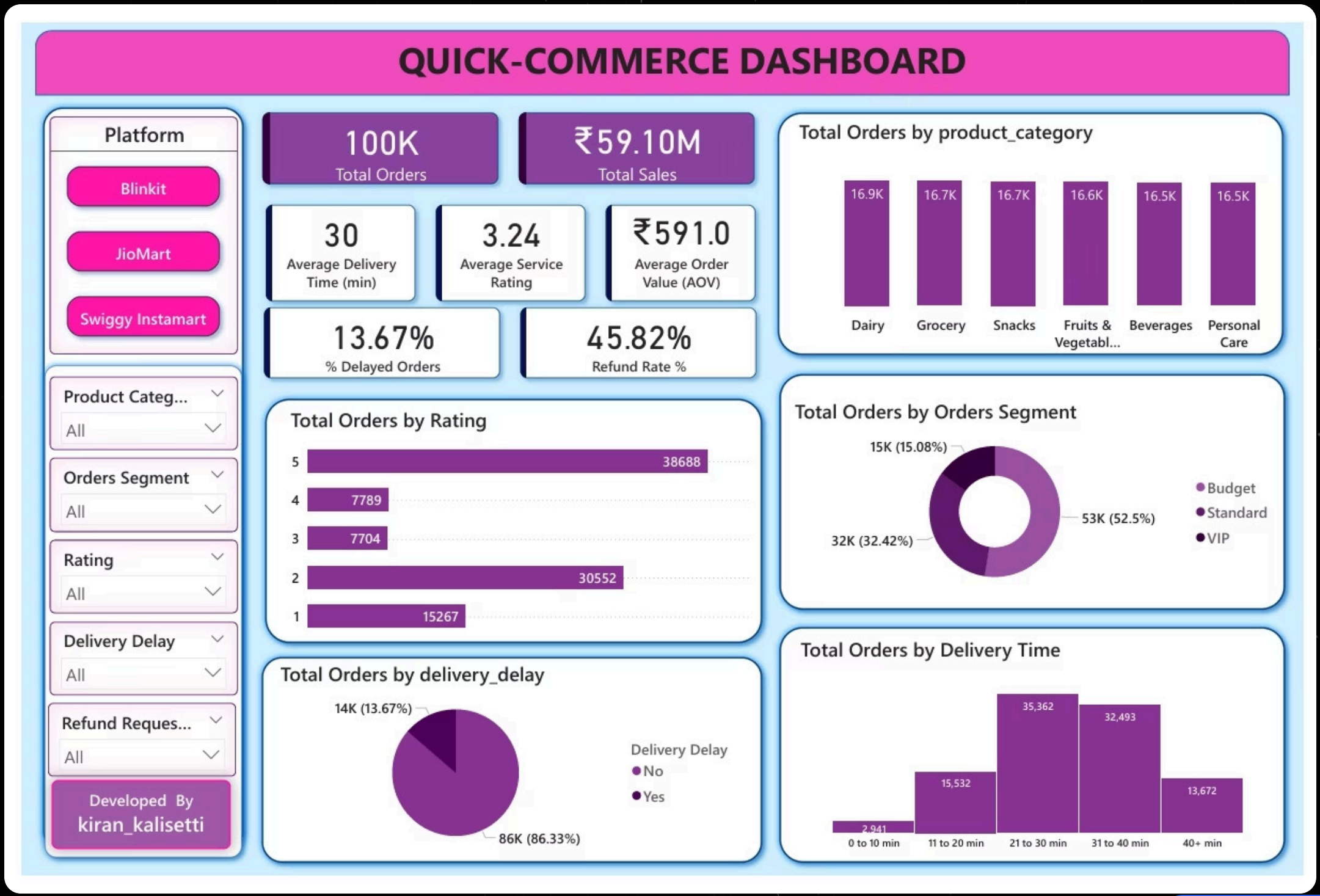
03

Dashboard (Power BI)

Created an interactive dashboard with KPIs, product category analysis, delivery delay distribution, service ratings, and order value segmentation.

Power BI Dashboard Preview

The dashboard provides a visual overview of key performance indicators and detailed insights into Q-commerce operations.



Unlocking Performance: Your Q-Commerce Dashboard

This interactive Power BI dashboard transforms raw data into actionable intelligence, providing an immediate and clear view of your Q-commerce operations. It's designed to streamline your analysis and empower proactive decision-making.

Key Features

- Real-time KPI tracking for critical metrics
- Order volume monitoring across all channels
- Detailed delivery time analysis to identify bottlenecks
- Precise refund rate tracking for financial oversight
- Comprehensive customer satisfaction metrics
- Platform performance comparison for strategic insights
- In-depth product category insights for inventory and sales optimization

Business Impact

- Identify inefficiencies in your operations quickly
- Optimize processes for greater speed and cost-effectiveness
- Make data-driven decisions with confidence
- Boost overall profitability through informed strategies
- Improve customer loyalty by addressing pain points

Key Insights & Recommendations

Key Insights

- Delivery delays correlate with lower ratings and higher refunds.
- Certain platforms drive disproportionate orders/revenue.
- High-value (VIP) customers contribute significantly to revenue.
- Product category performance varies across platforms.

Business Recommendations

- Optimize last-mile delivery to reduce delays.
- Focus improvements on platforms with high sales but lower ratings.
- Prioritize inventory/promotions for top-performing categories.
- Introduce loyalty benefits for high-value customers.

Tools & Technologies

Python

Data cleaning, transformation, and EDA.

SQL Server

Data analysis and business metrics.

Power BI

Interactive dashboard and data storytelling.

GitHub

Project version control and portfolio.

Author & Disclaimer

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Disclaimer

This project is for learning and portfolio purposes, using a public (synthetic) dataset with custom modifications and insights.

To run this project:

1. Run Python notebook for data prep.
2. Load cleaned data into SQL Server.
3. Execute SQL queries for analysis.
4. Connect Power BI to SQL Server.