SAKILA ANALYTICS PROJECT

1. Project Overview

This project analyzes the Sakila DVD rental database using Python to uncover insights on revenue, customer behavior, film performance, and business trends.

2. Business Objectives

1. Analyze revenue performance
2. Identify high-value customers
3. Evaluate film and category popularity
4. Assess store and staff performance
5. Understand rental trends over time

3. Key Business Questions

1. What is the total and monthly revenue?
2. Which films and categories generate the most revenue?
3. Who are the top customers by spending?
4. Which store and staff perform best?
5. What rental patterns exist over time?

4. Database Tables Used

Fact tables: payment, rental, inventory. Dimension tables: customer, film, category, staff, store, address, city, country.

5. Tools & Technologies

Python, Pandas, SQL (MySQL), Matplotlib, Jupyter Notebook.

6. Core Analysis Tasks

Revenue analysis, customer segmentation, film and category performance evaluation, staff and store comparison, and time-based trend analysis.

7. Visualizations

1. Monthly revenue trend
2. Top 10 films by revenue
3. Revenue by category
4. Customer spending distribution
5. Rentals by day of week

8. Insights & Recommendations

Use insights to optimize inventory, improve customer retention, promote high-performing categories, and enhance operational efficiency.

9. Deliverables

1. Jupyter Notebook analysis
2. Visual dashboards
3. Executive summary
4. GitHub repository

10. Assessment Rubric (Optional)

Data loading (20%), Analysis accuracy (30%), Visualization (20%), Insights (20%), Code quality (10%).