# SQL Internship Final Project Report

**Project Title: Online Retail Sales Database Design**

Introduction:

This project is developed as part of the SQL Developer Internship Program. The objective is to design a backend SQL database system for a retail sales platform that manages customers, products, orders, payments, and sales analytics.

Abstract:

The system includes five main tables: Customers, Products, Orders, OrderItems, and Payments. The schema is normalized, and it uses primary and foreign key constraints to maintain relational integrity. Views and stored routines are created to provide summarized analytics and support real-world functionalities like placing orders and tracking payments.

Tools Used:

- MySQL Workbench
- GitHub
- VS Code (optional)

Dataset:

Sample data of 4 customers, 4 products, 3 orders, and corresponding order items/payments has been created manually for testing purposes.

## Steps Involved in Building the Project

1. Designed the database schema with normalized structure in 3NF.
2. Created SQL tables with appropriate constraints (PK, FK).
3. Inserted sample data into all tables.
4. Developed views for customer-wise summaries and top-selling products.
5. Created stored procedures and functions for order placement and total calculation.
6. Organized all files into GitHub and documented each file.

## Conclusion

This SQL project demonstrates the ability to design a structured database for a retail system, including transaction handling, data normalization, and business logic using SQL functions, views, and procedures. The skills and concepts applied here are relevant to real-world enterprise database applications.