# Online Retail Sales Database Design

## 1. Introduction

The Online Retail Sales Database Design project focuses on building a relational database system to efficiently manage various operations of an e-commerce platform. This includes handling customers, products, orders, and payments using SQL.

## 2. Abstract

This project aims to develop a well-structured database to streamline online retail sales operations. It ensures data normalization, integrity, and supports analytical queries such as revenue reports and product sales summaries. Key features include data insertion, relationships, complex queries, and views for effective reporting.

## 3. Tools Used

- Database: MySQL
- SQL IDE: MySQL Workbench / pgAdmin
- Language: SQL

## 4. Steps Involved in Building the Project

1. Designed schema with tables: Customers, Products, Orders, OrderDetails, Payments.
2. Established relationships using foreign keys.
3. Inserted sample data into tables.
4. Wrote queries to fetch order summaries, revenue, top-selling products.
5. Created SQL views and Common Table Expressions (CTEs) for insights.
6. Tested and validated the data consistency and query accuracy.

## 5. Conclusion

The database system effectively supports online retail operations with efficient data management and insightful reporting. It provides a scalable and secure foundation for handling customer transactions, inventory, and performance tracking.