Shopease:E-Commerce Project Synopsis

# 1. Introduction

This project is an e-commerce application developed using Hibernate ORM. The system facilitates online shopping by allowing customers to browse products, add items to their cart, place orders, make payments, and leave reviews. Admins have the ability to manage products, categories, orders, and feedback.

# 2. Project Objectives

The primary objectives of this project are:

- To develop a fully functional e-commerce system with user and admin roles.  
- To implement role-based access control, ensuring that different functionalities are accessible depending on the user's role.  
- To integrate Hibernate ORM for efficient database interaction and management.  
- To handle common e-commerce operations such as product management, order processing, and payment management.  
- To incorporate review and feedback mechanisms to improve customer satisfaction.

# 3. System Architecture

The system is divided into several layers including Entities, Data Access Object (DAO) layer, Service layer, and Presentation layer.  
- \*\*Entities\*\*: Represent the business objects such as User, Product, OrderItem, Payment, Review, Feedback, etc.  
- \*\*DAO Layer\*\*: Provides the data access functionalities to interact with the database.  
- \*\*Service Layer\*\*: Contains business logic and handles the interaction between the DAO layer and the presentation layer.  
- \*\*Presentation Layer\*\*: Includes menus and input classes for interaction with the end-user.

# 4. Features

The key features of the system are:

- \*\*User Management\*\*: Admins can manage user accounts, assign roles, and delete users.  
- \*\*Product Management\*\*: Admins can add, update, delete, and view products and categories.  
- \*\*Order Management\*\*: Customers can add products to their cart, place orders, and view order history.  
- \*\*Payment Management\*\*: Secure payment processing with multiple payment options.  
- \*\*Review and Feedback\*\*: Customers can leave reviews for products, and admins can manage feedback.

# 5. Conclusion

This e-commerce project provides a comprehensive platform for online shopping, with robust functionality for both customers and administrators. The system leverages Hibernate ORM for seamless database interactions, ensuring efficient and reliable operations.