Fashion Inventory Management System Documentation

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1 Introduction

The Fashion Inventory Management System (FIMS) is a comprehensive solution for managing inventory, sales, and analytics for fashion retailers. This document outlines the current features and functionalities of the system.

2 System Requirements

- Python 3.7 or higher

- PyQt5 5.15.6
- matplotlib 3.5.2
- SQLite3 (included with Python)

3 Features

3.1 User Authentication

- Secure login system with hashed passwords
- Role-based access control (Manager, Inventory Manager, Sales Staff)
- User creation functionality (Manager only)

3.2 Inventory Management

- Add, view, and update product information
- Manage product categories and brands
- Set and monitor low stock thresholds
- Automatic alerts for low stock items

3.3 Sales Processing

- Process sales transactions
- Generate bills for customers
- Update inventory in real-time upon sale

3.4 Reporting and Analytics

- Generate sales reports (daily, weekly, monthly)
- Inventory reports
- Top-selling items analysis
- Inventory turnover analysis
- Sales trend visualization with graphs
- Inventory value and quantity analysis by category

3.5 Data Export

- Export inventory data to CSV format

4 User Interface

- Intuitive tab-based interface
- Responsive design with PyQt5
- Color-coded UI elements for better user experience

5 Database

- SQLite database for data storage
- Tables: products, brands, sales, users

6 Security Features

- Password hashing using SHA-256
- Role-based access control

7 Future Enhancements

- Barcode scanning for quick product lookup
- Integration with e-commerce platforms
- Advanced forecasting and predictive analytics
- Multi-language support

8 Conclusion

The Fashion Inventory Management System provides a robust solution for fashion retailers to manage their inventory, process sales, and gain insights through various reports and analytics. With its user-friendly interface and comprehensive feature set, it aims to streamline operations and improve decision-making in the fashion retail industry.