

UNIVERSITY OF INFORMATION TECHNOLOGY

SYSTEM ANALYSIS AND DESIGN MSIS3303.N21.CTTT



Project: Jewelry Store Management System

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Chapter 1: INTRODUCTION

1.1. Introduction

In today's fast-paced and ever-evolving business landscape, effective management systems play a crucial role in ensuring the success and growth of enterprises across various industries. The jewelry retail sector is no exception, with the need for efficient management becoming increasingly evident. The Jewelry Store Management System represents a comprehensive software solution designed to revolutionize the way jewelry stores operate, providing a streamlined and integrated approach to managing their inventory, sales, customer interactions, and overall business operations.

This report aims to explore the development and implementation of a Jewelry Store Management System. By harnessing the power of technology, we seek to enhance efficiency, accuracy, and customer experience within the jewelry retail industry, ultimately driving revenue growth and maintaining a competitive edge.

1.2. Research problems

The problem addressed by the Jewelry Store Management System project is the inefficiency and lack of integration in the current management practices of jewelry stores. Without a comprehensive software solution, jewelry retailers face several challenges that hinder their operational efficiency and customer experience:

- a. Manual Inventory Management: Many jewelry stores rely on manual methods for tracking inventory, which can lead to errors, discrepancies, and inefficiencies. This approach makes it difficult to accurately monitor stock levels, identify popular products, and ensure timely replenishment.
- b. Fragmented Sales and Customer Management: Without a centralized system, jewelry retailers struggle to manage customer information, sales transactions, and order processing efficiently. This fragmentation can result in duplicated efforts, inconsistent customer experiences, and difficulties in identifying and nurturing customer relationships.
- c. Security and Safety Concerns: Jewelry stores inherently deal with high-value and precious items, making security a critical concern. Without appropriate systems in place, ensuring the safety of inventory and customers becomes a significant challenge, leaving stores vulnerable to theft and potentially compromising customer trust.

By addressing these issues, we aim to revolutionize the way jewelry stores operate, overcoming inefficiencies, streamlining processes, and ultimately enhancing both operational efficiency and customer experience.

1.3. Research Objectives

In this project, we aim to gain practical experience in designing and developing a software system, to learn about the process of system analysis and design, and to apply the concepts and techniques learned in class to a real-world project. The specific goals of this project are:

Requirement Analysis: Conduct a thorough analysis of the jewelry store's operational processes
and identify the key requirements for the management system. This involves understanding the
different tasks performed in a jewelry store, such as inventory management, sales tracking,
customer management, and business reporting.

- System Design: Create a comprehensive system design that addresses the identified requirements (e.g., designing a user-friendly interface, defining data structures and database schema, and determining the necessary functionalities)
- Database Development: Develop a robust and efficient database to store and manage the relevant information.
- Project Management: Apply project management principles to ensure effective planning, organization, and execution of the project.
- Gain experience in developing a web application using and enhance our programming skills in
- Familiarize ourselves with the principles of customer relationship management and supplier management.

1.4. Scope of project

The following features have been developed by our team for this project:

- 1. Inventory Management: track and control jewelry stock, add/update items, monitor stock levels.
- 2. Product management: Add, modify, and categorize jewelry items, update product details, and simplify search and browsing for both store personnel and customers.
- 3. Order management: View Order History and modify Order status.
- 4. User management: Create and manage user accounts with different roles and permissions to control access.
- 5. Sales report: Generate comprehensive reports on sales performance, revenue, and profitability, aiding decision-making for inventory, pricing, and marketing strategies.
- 6. Online Shopping: enables customers to browse, select, and purchase jewelry items. Customers can add items to their cart, provide shipping and payment details, and receive order confirmation. Store personnel can process and manage orders, streamlining the fulfillment process.

1.5. Developer tools & Technology

Version Control: GitHubProject Management: JiraBackend: PHP, MySQL

Frontend HTML, JavaScript, CSS

Chapter 2: REQUIREMENT SPECIFICATION

2.1. Situation survey

2.1.1. Interview

Survey Topics			
	System: Jewelry Store		
	Creator: Le Tri Khoa		
Ord	Ord Topic Requirement		
1	General Overview	 Begin by introducing the interviewee and their role within the jewelry store management system. Ask for an overview of the system, its purpose, and its main features. 	

2	Inventory Management	 Inquire about how the system handles inventory management, including tracking stock levels, receiving new inventory, and managing product variations (e.g., different sizes, metals, gemstones). Explore how the system helps in identifying popular products, slow-moving inventory, and managing reordering. 	
3	Sales and Point of Sale (POS)	 Discuss the functionality of the system related to sales, such as creating and processing sales orders, generating invoices, and handling discounts or promotions. Ask about the integration with the POS system and how it simplifies transactions, tracks sales, and manages customer information. 	
4	Customer Management	 Investigate how the system supports managing customer information, including storing customer details, purchase history, and preferences. Inquire about any features that help in customer engagement, loyalty programs, or personalized recommendations. 	
5	Reporting and Analytics	 Explore the reporting capabilities of the system, such as generating sales reports, inventory reports, and financial summaries. Ask about the use of analytics to gain insights into customer behavior, market trends, and performance metrics. 	
6	Online Shopping	 assess the company's current online shopping capabilities and gather requirements for improving the online shopping experience, increasing customer satisfaction, and driving growth in online sales. 	
7	Security and Data Privacy	 Discuss the measures in place to ensure data security, such as encryption, user access controls, and backups. Inquire about compliance with data protection regulations and measures taken to safeguard customer information. 	
8	Integration and Scalability	 Ask about the system's ability to integrate with other software or platforms (e.g., e-commerce websites, accounting software). Discuss the scalability of the system, especially in handling increased inventory, expanding to multiple store locations, or accommodating future growth. 	

Table 1 Survey Requirements

Target: Collect and understand working	
process of Jewelry Store.	
Details of the interview:	
1. Introduction	
2. Survey Question:	

•	Topic 1: General Overview
•	Topic 2: Inventory Management
•	Topic 3: Sales and Point of Sale (POS)
•	Topic 4: Customer Management
•	Topic 5: Reporting and Analytics
•	Topic 6: Online Shopping
•	Topic 7: Security and Data Privacy
•	Topic 8: Integration and Scalability
General Observ	ve
Unexpected oc	ccurrence

Table 2 Survey Form

	Interviewee: Le Tri Khoa		
	Questions	Records	
	Can you provide an		
	overview of your role	As the store manager, my role involves overseeing the day-to-day	
	within the jewelry store	operations of the jewelry store, including managing inventory, sales,	
	management system?	and customer relationships through the system.	
		The primary purpose of the system is to streamline and automate	
		various aspects of running a jewelry store, such as inventory	
1	What is the purpose of	management, sales processing, and customer relationship	
	the jewelry store	management. It helps us efficiently track our products, serve	
	management system?	customers, and make informed business decisions.	
	What are the main	The system offers a range of features including inventory management,	
	features of the jewelry	sales and point of sale (POS) processing, customer relationship	
	store management	management (CRM), reporting and analytics, and integration	
	system?	capabilities with other software or platforms.	
	How do you currently	We currently use a combination of manual methods and spreadsheets	
	track and manage your	to track and manage our inventory. It can be time-consuming and prone	
	inventory?	to errors.	
	What challenges do		
	you face with your current inventory	One of the major challenges is maintaining accurate stock levels and knowing when to reorder items. Additionally, it's difficult to quickly	
	management process?	locate specific items within our inventory.	
	How do you handle	We rely on manual monitoring of stock levels and manually placing	
	stock replenishment	orders with our suppliers. It would be beneficial to have a system that	
2	and reordering?	automates this process based on predefined thresholds.	
_	Do you have multiple	automates this process sused on predefined thresholds.	
	store locations? If so,		
	how do you manage	Yes, we have multiple store locations. Currently, we manually transfer	
	inventory across those	stock between stores based on inventory needs, which can be	
	locations?	inefficient and prone to errors.	
	Are there any specific		
	product attributes you	Yes, we need to track attributes such as size, weight, material, and	
	need to track for your	gemstone type for our jewelry items. It helps us provide accurate	
	inventory?	information to customers and manage our inventory effectively.	

1	How do you handle	
	returns, exchanges, or	Returns, exchanges, and repairs are managed manually, involving
	repairs of jewelry	paperwork and updating inventory records manually. We need a more
<u> </u>	items?	streamlined process to handle these cases efficiently.
	What is your current	Our current sales process involves interacting with customers,
	sales process and workflow?	showcasing jewelry items, and manually processing transactions using a
	Are you using any	traditional cash register.
	specific POS system or	Currently, we do not have a dedicated POS system in place. We rely on
	software?	manual processes for recording sales and managing transactions.
	Do you need the ability	
3	to generate sales	
	reports or analyze sales	Yes, we would like to have the ability to generate sales reports to track
	data?	performance, identify top-selling items, and analyze sales trends.
	Are there any specific	
	,	
	· ·	We would like to integrate our sales data with our associating software
	· ·	
		Tot seattless illiandia management and reporting.
	customer database or	Yes, we maintain a customer database, but it is relatively basic and
	CRM system in place?	doesn't have extensive functionalities.
	What specific customer	Currently, we track basic information such as customer names, contact
	,	
		communication history.
		We rely on manual methods such as email inhone calls, and in-nerson
	feedback?	conversations.
	Are there any specific	
	customer segmentation	We would like to segment our customers based on their preferences,
4	0 0 ,	7, 01
		provide personalized recommendations.
	•	Yes, we often handle jewelry repairs and warranty services. We need a
	services?	customers, and manages warranty claims.
	How do you handle	Currently, we handle returns or exchanges manually on a case-by-case
	customer returns or	basis. We would like a system that streamlines this process, updates
		inventory, and generates appropriate documentation.
		We would like to have insights into sustamor nurshase natterns report
	management?	efforts.
4	integrations you require with other systems or services related to sales? Do you currently have a customer database or CRM system in place? What specific customer information do you track or would like to track? How do you currently manage customer communication and feedback? Are there any specific customer segmentation or targeting needs you have? Do you have any requirements for managing customer repairs or warranty services? How do you handle customer returns or exchanges? Are there any specific analytics or reporting needs related to customer	doesn't have extensive functionalities. Currently, we track basic information such as customer names, conta details, and purchase history. We would like to enhance it with additional details like preferences, special occasions, and communication history. We rely on manual methods such as email, phone calls, and in-person interactions. Feedback is typically collected through informal conversations. We would like to segment our customers based on their preferences, purchase history, and demographics to tailor our marketing efforts as provide personalized recommendations. Yes, we often handle jewelry repairs and warranty services. We need system that tracks repair requests, communicates progress to customers, and manages warranty claims. Currently, we handle returns or exchanges manually on a case-by-cast basis. We would like a system that streamlines this process, updates inventory, and generates appropriate documentation. We would like to have insights into customer purchase patterns, repecustomer rates, and customer lifetime value to make data-driven decisions and measure the effectiveness of our customer manageme

	How do you manage customer feedback and reviews?	Currently, we collect feedback informally, but we are interested in having a system that can capture customer feedback, manage online reviews, and provide mechanisms for responding and addressing customer concerns.
	What types of reports or analytics do you currently generate for your business?	Currently, we generate basic sales reports, inventory reports, and financial statements. However, the reports are generated manually and are limited in terms of depth and insights.
	Are there any specific sales reports or analysis you would like to have for better decision-making?	We would like reports that analyze sales performance by product, customer segment, and sales channel. Additionally, comparative reports showing sales trends over time and against targets would be valuable.
5	Are there any integrations with external systems or data sources required for your reporting and analytics	We would like to integrate data from our POS system, accounting software, and possibly external market data sources to enrich our reports and analytics.
	How frequently would you like to generate reports and access analytics insights?	Ideally, we would like to have the ability to generate reports on- demand and access real-time analytics insights. However, periodic reports such as weekly, monthly, or quarterly would also be valuable.
	What features and functionalities do you currently offer on your online shopping platform?	We want shopping platform allows customers to browse products, add items to the cart, and proceed to checkout. It also need to provide basic product descriptions and images.
	What shipping and delivery options do you currently offer for online orders?	We currently offer standard shipping options, but we are interested in expanding our delivery options to include express shipping, international shipping, and order tracking.
6	Are there any specific features or enhancements you would like to add to your online shopping platform? How do you handle returns or exchanges for online purchases? How do you handle customer support and inquiries for online orders?	We would like to enhance our online shopping platform with features such as advanced search filters, customer reviews, virtual try-on options, and personalized product recommendations. Currently, customers need to contact us directly to initiate returns or exchanges. We are looking for a more streamlined and self-service process for online returns and exchanges. Currently, customers can contact us via email or phone for support related to online orders. We are interested in implementing live chat or a self-service knowledge base to improve customer support for online shoppers.
	Are there any specific analytics or reporting	We would like to have analytics and reporting capabilities to track website traffic, conversion rates, abandoned carts, and customer

	needs related to your online shopping platform?	behavior on our online shopping platform. This data would help us optimize our online shopping experience.
	How do you currently ensure the security of your customer and business data?	We have implemented basic security measures such as password protection and limited access to sensitive data. However, we recognize the need for stronger security protocols.
	What types of data do you consider sensitive or confidential?	We consider customer information, including personal details, payment information, and purchase history, as sensitive and confidential. Additionally, we consider our business financial data and supplier information as confidential.
7	How do you currently handle data backups and disaster recovery?	Currently, we manually back up our data on external drives or local servers. We recognize the need for a more robust data backup and disaster recovery plan.
	How long do you retain customer data, and what is your data retention policy?	Currently, we retain customer data indefinitely. However, we need to establish a clear data retention policy in line with legal requirements and customer preferences.
	Do you have measures in place to protect against unauthorized access or data breaches?	We have basic measures such as password protection and restricted access to sensitive data. However, we need to enhance our security measures to protect against potential data breaches.
	What specific data or functionalities do you require to be integrated between systems?	We would like seamless integration of customer data, sales data, and inventory data between the systems to ensure accurate and up-to-date information across all platforms.
	How do you envision the new system scaling as your business grows?	We anticipate business growth in terms of sales volume, store locations, and customer base. We need a system that can accommodate this growth without performance issues or significant disruptions.
8	How flexible do you need the new system to be in terms of customization and adaptability?	We would like a system that can be customized to meet our specific business needs and can adapt to changing requirements or industry trends.
	Are there any external APIs or third-party services that the new system should be able to integrate with?	We may require integration with external services such as payment gateways, shipping carriers, or online marketplaces for a seamless and streamlined business operation.
	Do you have any expansion plans that the new system should be able to support?	Yes, we have plans to open additional store locations and potentially expand into online sales. The new system should be able to handle these expansions smoothly.

2.1.2. Survey of the organization



Figure 1 Organizational hierarchy

2.1.3. Survey of business processes, major activities

2.1.3.1. Sale Department

- Engage with customers to understand their needs and provide product information and recommendations.
- Assist customers with selecting and purchasing jewelry items.
- Process sales transactions accurately and efficiently, including handling payments and issuing receipts.
- Provide exceptional customer service by addressing inquiries, resolving issues, and ensuring customer satisfaction.
- Collaborate with the inventory team to ensure accurate product availability and timely order fulfillment.
- Continuously update product knowledge to stay informed about the latest trends and offerings.

2.1.3.2. Inventory Department

- Monitor and track inventory levels, including receiving new stock and updating inventory records.
- Conduct regular stock counts and reconcile physical inventory with the system records.
- Collaborate with the procurement team to manage supplier relationships, source new products, and negotiate contracts.

- Determine optimal stock levels, set reorder points, and generate purchase orders for replenishment.
- Coordinate with the sales team to fulfill customer orders, manage product allocations, and address stock availability issues.
- Ensure proper storage, organization, and security of inventory items within the warehouse or storage area.

2.1.3.3. Marketing Department

- Develop marketing strategies and campaigns to promote the organization's brand and jewelry offerings.
- Conduct market research to identify customer preferences, trends, and competitors' activities.
- Create compelling marketing content, including digital and print materials, to engage customers and drive sales.
- Manage the organization's online presence, including the website, social media channels, and email marketing campaigns.
- Analyze marketing performance metrics and make data-driven decisions to optimize marketing efforts.
- Collaborate with the sales team to align marketing activities with sales objectives and customer needs.

2.1.3.4. Finance and Accounting Department

- Manage financial operations, including budgeting, forecasting, and financial planning.
- Handle day-to-day financial transactions, including accounts payable and accounts receivable.
- Prepare financial statements, reports, and analysis to monitor the organization's financial performance.
- Ensure compliance with financial regulations, tax obligations, and internal control procedures.
- Conduct financial analysis to identify areas for cost reduction, revenue improvement, and overall financial efficiency.
- Coordinate payroll processing, deductions, and employee benefits administration.

2.1.3.5. IT/Technical Department

- Assess business requirements and design system functionalities to meet the organization's needs
- Coordinate the implementation of JSMS, including system configuration, data migration, and user training.
- Manage the organization's technology infrastructure, including hardware, software, and network systems.
- Provide technical support and troubleshooting assistance to resolve system issues and ensure smooth operations.
- Monitor system performance, security, and data backups to maintain system integrity.
- Collaborate with other teams to integrate JSMS with other systems and technologies, such as accounting software or e-commerce platforms.

2.1.4. Survey of Existing System

Based on the topics we have discussed, let's review the current existing system:

- 1. Inventory Management: The current system tracks basic inventory information such as product names, quantities, and possibly pricing. However, it may lack advanced features like automated reordering, stock level alerts, and detailed inventory analytics.
- 2. Sales and POS: The current system enables basic sales transactions and has a point-of-sale functionality. However, it may lack features such as comprehensive sales reporting, integration with customer data, and support for loyalty programs or discounts.
- 3. Customer Management: The current system maintains a customer database but may have limited functionality. It may lack advanced customer segmentation, communication tracking, and loyalty program management capabilities.
- 4. Reporting and Analytics: The current system generates basic sales reports and financial statements, but the reports are manually created and lack in-depth insights. There may be a need for more comprehensive reporting, analytics, and integration with external data sources.
- 5. Online Shopping: The current online shopping platform allows customers to browse and purchase jewelry items. However, it may lack advanced features like personalized product recommendations, virtual try-on options, and streamlined returns/exchanges processes.
- 6. Security and Data Protection: The current system has basic security measures in place, such as password protection. However, there may be a need for stronger security protocols, data backup procedures, and compliance with data protection regulations.
- 7. Integration and Scalability: The current system may not have seamless integration capabilities with other systems, such as accounting software or e-commerce platforms. There may also be concerns about its ability to scale as the business grows.

Based on these discussions, it appears that the current system has some limitations and areas for improvement in various aspects. It is crucial to address these shortcomings to enhance efficiency, customer experience, and overall business performance.

2.2. Software requirements

2.2.1. Functional requirements

2.2.1.1. Inventory Management:

- a. The Admin should have the ability to add, update, and remove jewelry items from the inventory.
- b. The system should categorize and organize jewelry items for efficient searching and browsing.
- c. The Admin should have the ability to specify details such as item code, description, price, and quantity for each item.

2.2.1.2. Product Management:

- a. The Admin should have the ability addition, modification, and remove jewelry items.
- b. The Admin should have the ability to update product details, such as pricing, description, and images.
- c. The system should be able to Categorize and organize of products based on type, material, or design.

2.2.1.3. Order Management:

- a. The Admin should have the ability to review Order History.
- b. The Admin should have the ability to change status of an Order (Paid, Unpaid)

2.2.1.4. User Management:

- a. The Admin should have the ability to Create, modify, and remove user accounts.
- b. The system should have user authentication and password management.
- c. The system should have ability to Input and storage of customer information.

2.2.1.5. Sales Report:

- a. The system should generate comprehensive sales reports based on various criteria, such as date range, product category, or customer segment.
- b. The system should visualize data through charts, graphs, or tables.

2.2.1.6. Online Shopping:

- a. Customers should be able to browse and select jewelry items for purchase.
- b. The system should allow customers to add items to a virtual shopping cart.
- c. The system should calculate the total price.
- d. Customers should be able to review and modify the contents of their shopping cart before finalizing the order.
- e. Customers can choose shipping address.
- f. Customers can choose between different payment methods (cash, momo).
- g. The system should generate order confirmation for each transaction.
- h. Customers should have the ability to view their order history.

2.2.2. Non-functional requirements

2.2.2.1. Usability:

- a. The system should have an intuitive and user-friendly interface, allowing users to navigate and perform tasks easily.
- b. The system should provide clear and concise instructions and prompts to guide users through various operations.
- c. The system should have a responsive design, adapting to different screen sizes and devices for a seamless user experience.

2.2.2.2. Performance:

- a. The system should have fast response times, ensuring quick retrieval and display of product information, sales transactions, and reports.
- b. The system should be capable of handling concurrent user requests efficiently without significant delays or performance degradation.
- c. The system should be able to handle large amounts of data without compromising performance.

2.2.2.3. Security:

- a. The system should implement robust security measures to protect sensitive data, such as customer information, payment details, and user credentials.
- b. The system should provide secure user authentication and authorization mechanisms to ensure that only authorized individuals can access and modify data.

c. The system should have data encryption capabilities to safeguard information during transmission and storage.

2.2.2.4. Reliability:

- a. The system should operate reliably with minimal downtime, ensuring continuous availability for users.
- b. The system should have backup and recovery mechanisms to protect against data loss and enable guick system restoration in case of failures or disasters.
- c. The system should handle errors gracefully, providing informative error messages and recovering from errors without data loss or system instability.

2.2.2.5. Scalability:

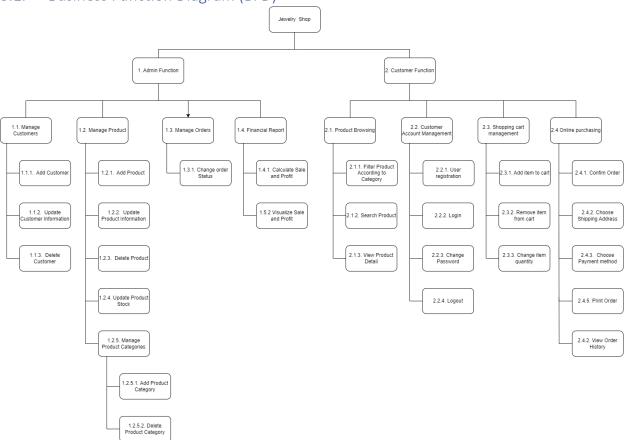
- a. The system should be able to handle increasing loads and accommodate a growing number of products, customers, and transactions without significant performance degradation.
- b. The system architecture should be scalable, allowing for easy expansion and addition of resources as the business and user base grow.

2.2.2.6. Integration:

a. The system should have the ability to integrate with external systems, such as payment gateways, accounting software, or other relevant third-party applications.

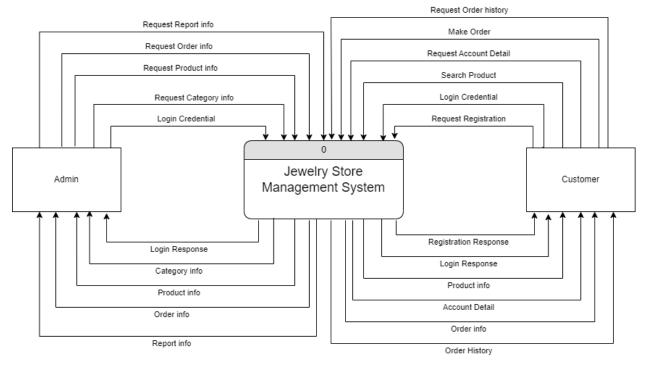
Chapter 3: ANALYSIS AND DESIGN

3.1. Business Function Diagram (BFD)

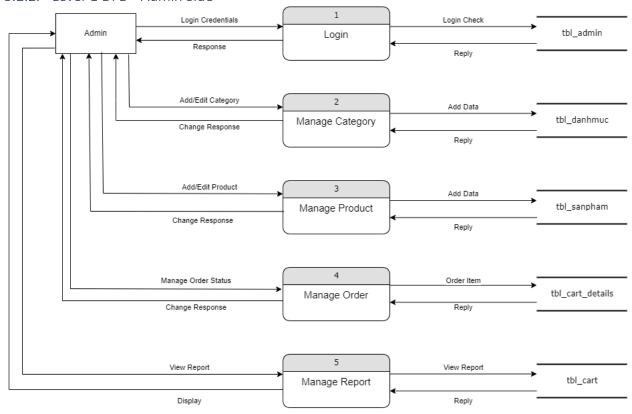


3.2. Data Flow Diagram (DFD)

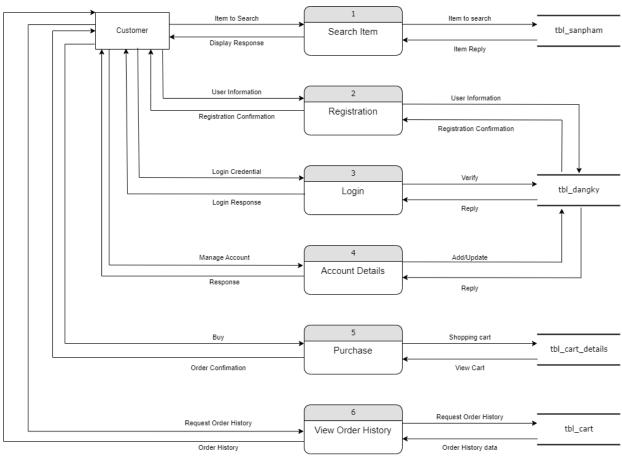
3.2.1. Level-0 DFD



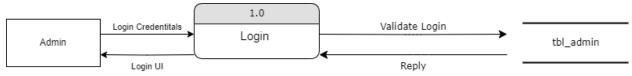
3.2.2. Level-1 DFD - Admin Side



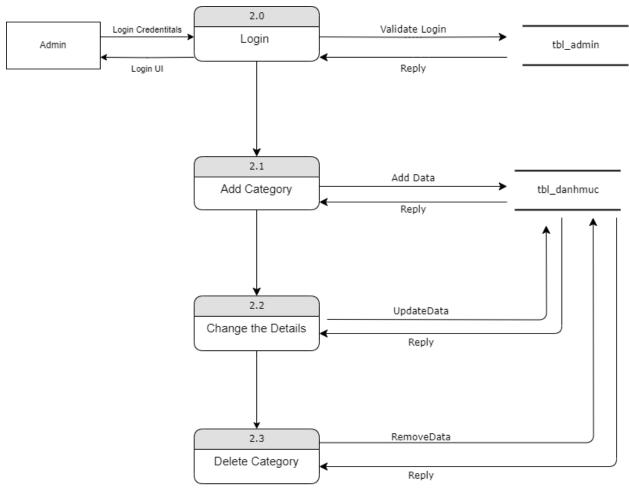
3.2.3. Level-1 DFD - Customer Side



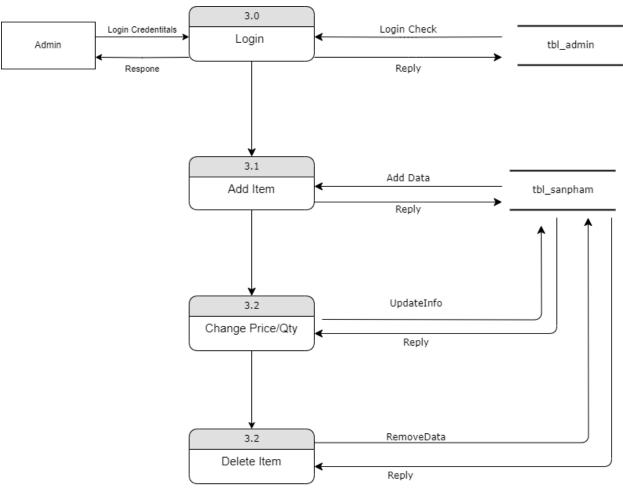
3.2.4. Level-2 DFD – Admin Side - Function 1



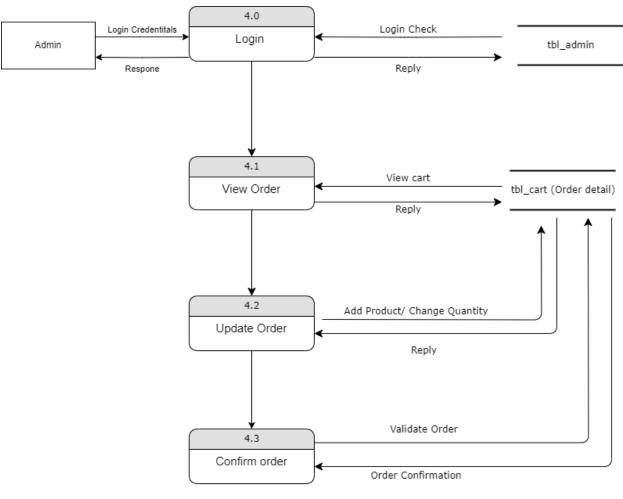
3.2.5. Level-2 DFD – Admin Side - Function 2



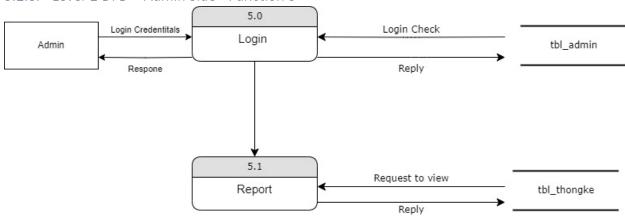
3.2.6. Level-2 DFD – Admin Side - Function 3



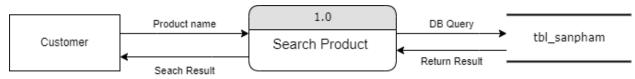
3.2.7. Level-2 DFD - Admin Side - Function 4



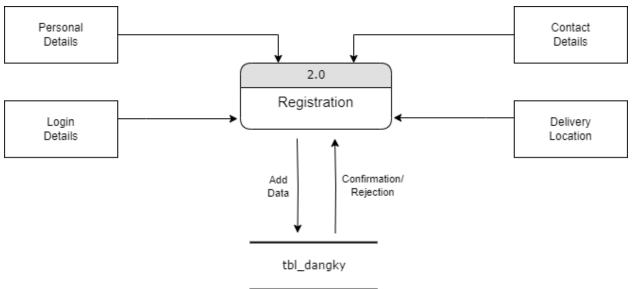
3.2.8. Level-2 DFD – Admin Side - Function 5



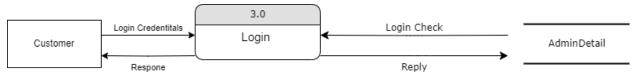
3.2.9. Level-2 DFD – Customer Side - Function 1



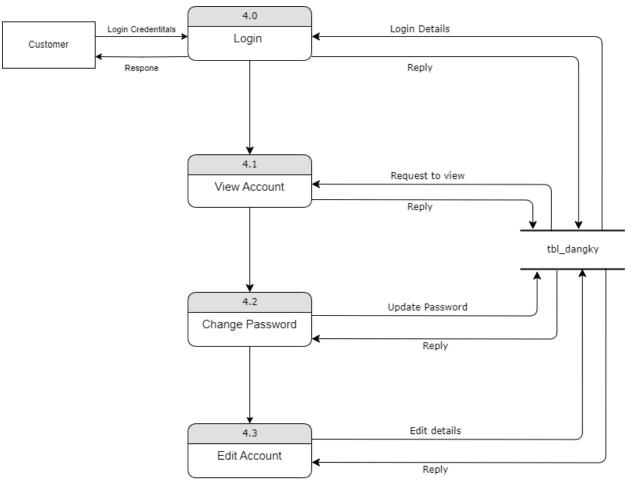
3.2.10. Level-2 DFD — Customer Side - Function 2



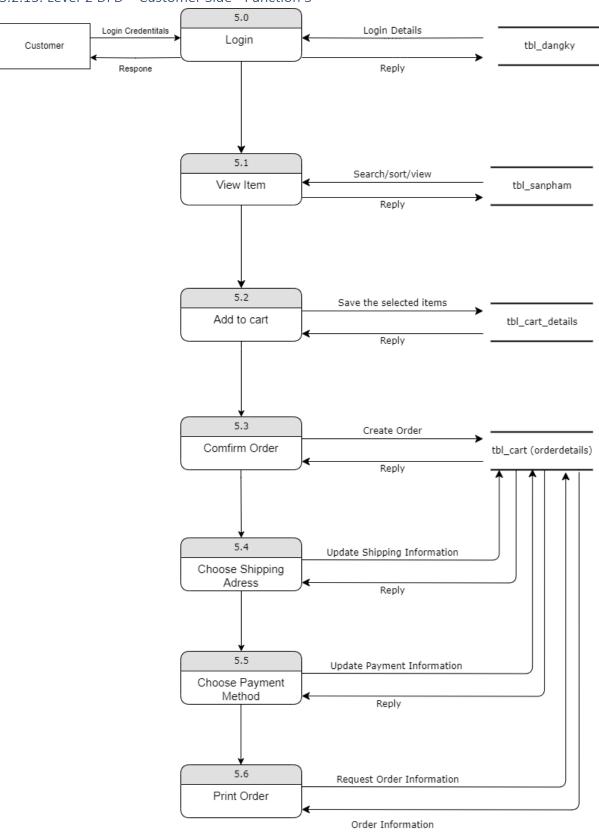
3.2.11. Level-2 DFD – Customer Side - Function 3



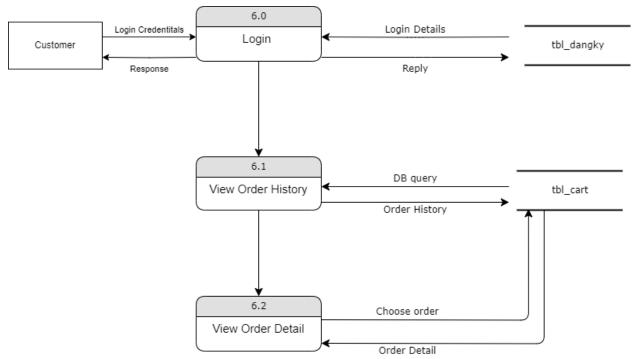
3.2.12. Level-2 DFD – Customer Side - Function 4



3.2.13. Level-2 DFD - Customer Side - Function 5



3.2.14. Level-2 DFD – Customer Side - Function 6



3.1. Entity Relational Data model (ERD)

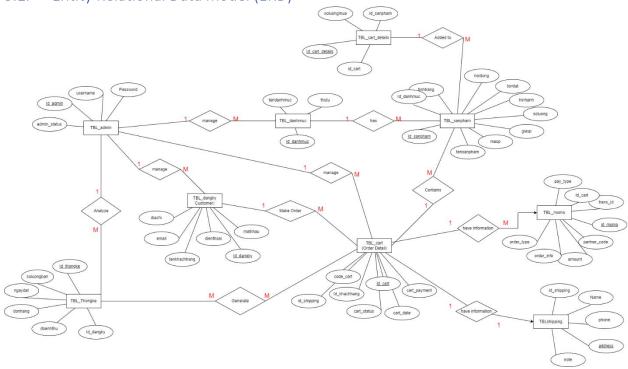


Figure 2 ERD Diagram

3.2. Relational Data model (RDM)

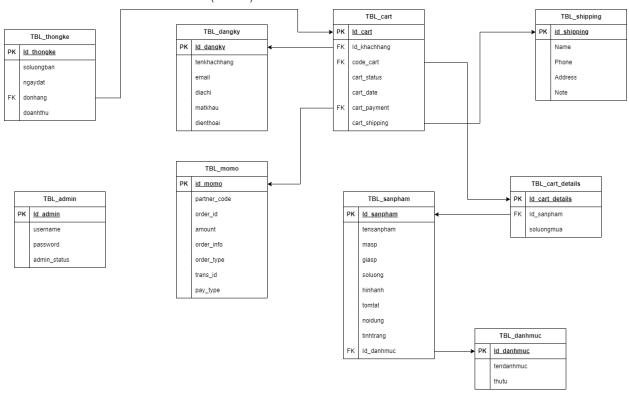


Figure 3 RDM

3.3. Data constraints.

We database descriptions:

Column Name	Data type	Constraints
Id_dangky	Int(11)	Primary Key
Tenkhachhang	Varchar(100)	
Email	Varchar(100)	
Diachi	Varchar(100)	
Matkhau	Varchar(100)	
Dienthoai	Varchar(20)	

Table 4 tbl_dangky

Column Name	Data type	Constraints
Id	Int(11)	Primary Key
UserName	Varchar(100)	
Password	Varchar(100)	
Admin_status	Int(11)	

Table 5 tbl_admin

Column Name	Data type	Constraints
Id_danhmuc	Int(11)	Primary Key
Tendanhmuc	Varchar(100)	
Thutu	Int(11)	

Table 6 tbl_danhmuc

Column Name	Data type	Constraints
Id_sanpham	Int(11)	Primary Key
Tensanpham	Varchar(100)	
Masp	Varchar(100)	
Giasp	Varchar(50)	
Soluong	Int(11)	
Hinhanh	Varchar(50)	
Tomtat	Tinytext	
Noidung	Text	
Tinhtrang	Int(11)	
Id_danhmuc	Int(11)	

Table 7 tbl_sanpham

Column Name	Data type	Constraints
Id_cart	Int(11)	Primary Key
Id_khachhang	Int(11)	Foreign Key
Code_cart	Varchar(20)	Foreign Key
Cart_status	Int(11)	
Cart_date	Varchar(50)	
Cart_payment	Int(11)	Foreign Key
Cart_shipping	Int(11)	

Table 8 tbl_cart

Column Name	Data type	Constraints
Id_cart_details	Int(11)	Primary Key
Id_sanpham	Int(11)	
Soluongmua	Int(11)	

Table 9 tbl_cart_details

Column Name	Data type	Constraints
Id_shipping	Int(11)	Primary Key
name	Varchar(100)	
Phone	Varchar(100)	
Address	Varchar(100)	
Note	Varchar(100)	

Table 10 tbl_shipping

Column Name	Data type	Constraints
Id	Int(11)	Primary Key
Ngaydat	Varchar(30)	
donhang	Int(11)	Foreign Key
Doanhthu	Varchar(100)	

soluongban	Int(11)	
T-1-1- 44 +1-1+11		

Table 11 tbl thongke

Name	Datatype	Constraints
Id_momo	Int(11)	Primary Key
partner_code	varchar(50)	
order_id	varchar(50)	
amount	varchar(50)	
order_info	varchar(50)	
order_type	varchar(50)	
trans_id	varchar(50)	
pay_type	varchar(50)	
code_cart	varchar(50)	

Table 12 tbl_momo

Chapter 4: IMPLEMENTATION AND TESTING

4.1. Introduction to the implementation environment

This project is run on: Windows 11, using XAMPP version 8.0.11, PHP (version 8.0.11 and MySQL (version 8.0.27).

4.2. User Interface

4.2.1. Admin UI

a. Login

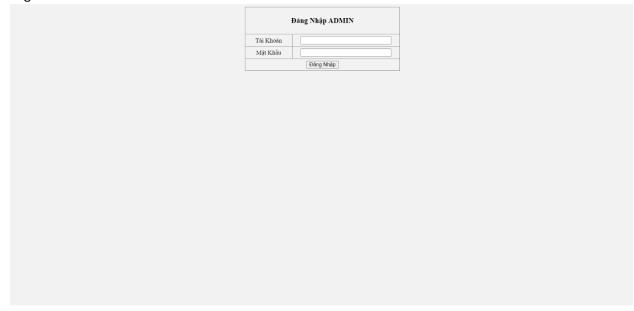


Figure 4 Admin Login

b. Manage Product Categories

Welcome to AdminCP

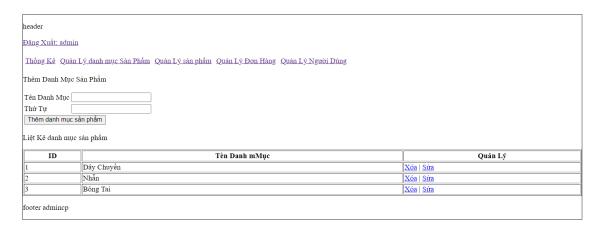


Figure 5 Manage Product Categories

c. Manage Product

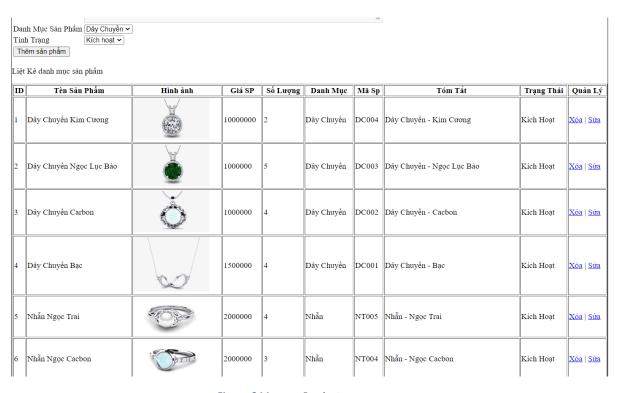


Figure 6 Manage Product

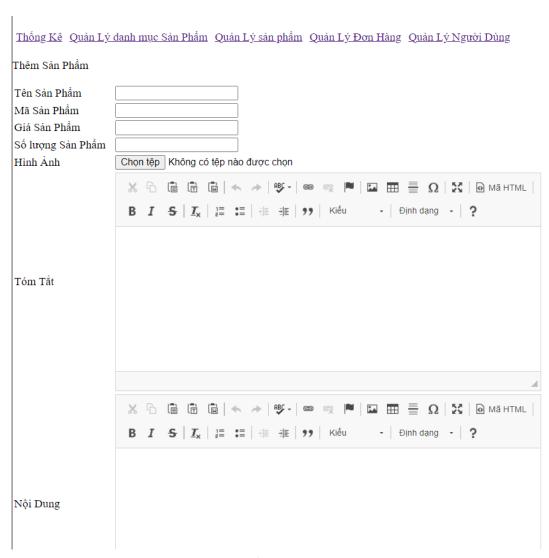


Figure 7 Create/Update Product Information

d. Manage Customer

Danh sách người d	dùng				
ID Đăng ký	Tên Khách hàng	Email	Địa chỉ	Xóa user	Sửa user
15	Quang Anh	qa@gmail.com	Đồng Nai	Xóa	Súra
16	quang anh nè	qaqa@gmail.com	123123	Xóa	Súra
Ouav lai					

Figure 8 Manage Customer

e. Manage Order

Welcome to AdminCP

hea	ıder								
Đăr	ng Xuất: admin								
Th	iống Kê Quản Lý d	anh mục Sản Phẩm Qu	iàn L <u>ý sản</u>	phẩm Quản Lý Đơn H	àng Quản Lý Ngư	ời Dùng			
Liệt	t kê đơn hàng								
Liệi Id		Tên khách hàng	Địa chỉ	Email	Số điện thoại	Tình trạng	Ngày đặt	Quản lý	In
Ľ.		Tên khách hàng quang anh nè	_	Email qaqa@gmail.com	Số điện thoại 123123123	Tình trạng Đơn hàng mới	Ngày đặt 2023-06-21 10:53:55	Quản lý Xem đơn hàng	In In Đơn hàng

Figure 2 View Order List

Welcome to AdminCP

head	der								
Đăn	ıg Xuất: admin								
Thć	ống Kê Quản Lý d	anh mục Sản Phẩm Qua	àn L <u>ý sản p</u>	hầm Quản Lý Đơn Hàr	ng Quản Lý Người	Dùng			
Liệt	kê đơn hàng								
Liệt Id		Tên khách hàng	Địa chỉ	Email	Số điện thoại	Tình trạng	Ngày đặt	Quản lý	In
_		Tên khách hàng quang anh nê	Địa chỉ 123123	Email qaqa@gmail.com			Ngày đặt 2023-06-21 10:53:55	Quản lý Xem đơn hàng	In In Đơn hàng

Figure 10 Change Order Status From "Đon hàng mới" to "Đã Xem"

welcome to Auminur



Figure 11 View Order Detail

f. Financial Report

Welcome to AdminCP



Figure 12 View Financial Report (7, 28, 90 or 365 days)

4.2.2. Customer UI

a. Customer Login

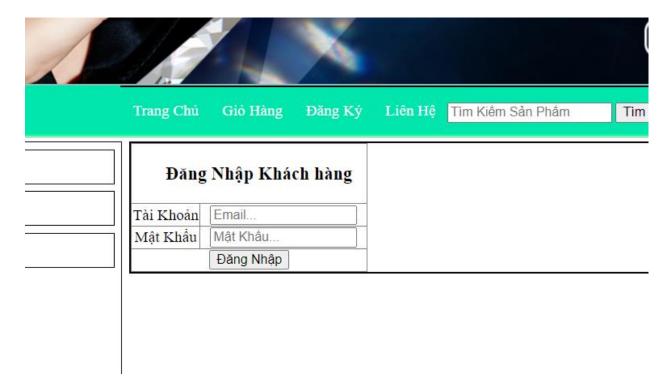


Figure 13 Customer Login

b. Registration

Trang Chủ	Giỏ Hàng	Đăng Ký	Liên Hệ	Tim Kiếm Sả	n Phẩm	Tìm Kiế
Đăng Ký Tha	ành Viên					
Họ Và Tên						
Email						
Điện Thoại						
Địa Chỉ						
	1.48 2.65					

Figure 14 Customer Registration

c. Change Password



Figure 15 Change Customer Password

d. Shop UI

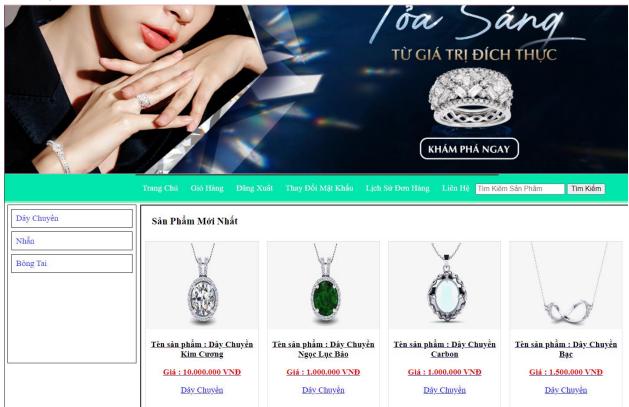


Figure 16 Shop Main Menu

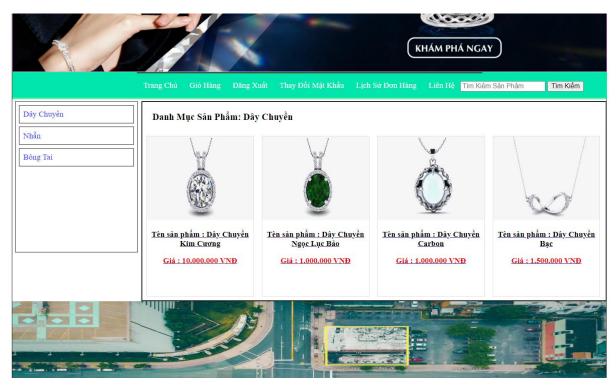


Figure 17 View Product Filter with Product Category

Chi Tiết Sản Phẩm



Tên Sản Phẩm: Dây Chuyền Ngọc Lục Bảo

Mã Sản Phẩm: DC003

Giá Sản Phẩm: 1.000.000 VNĐ

Số Lượng Sản Phẩm: 5

Danh Mục Sản Phẩm: Dây Chuyền

Thêm Giỏ Hàng

Thông số kỹ thuật Nội dung chi tiết Hình ảnh sản phẩm

Dây chuyển ngọc lục bảo - một loại trang sức sang trọng và quý phái, được làm từ các viên ngọc lục bảo tự nhiên. Dây chuyển này mang đến vẻ đẹp đặc biệt với sự kết hợp của các ngọc lục bảo có màu sắc đa dạng và bóng lấp lánh. Ngọc lục bảo tượng trưng cho sự thịnh vượng, tài lộc và sức mạnh. Dây chuyển ngọc lục bảo thường có thiết kế tinh tế và đa dạng, từ những mắt ngọc lục bảo đơn giản cho đến những mẫu mã phức tạp với sự kết hợp các loại đá quý khác. Được đính kèm vào dây chuyển bằng các mắt xích hoặc khuyên, dây chuyển ngọc lục bảo tạo nên một điểm nhấn hoàn hảo và thể hiện sự thanh lịch và quý phái của người đeo.

Figure 18 Product Detail

e. Purchase Process

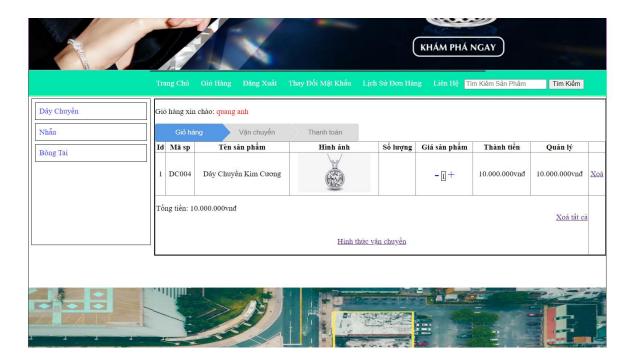


Figure 19 Shopping Cart

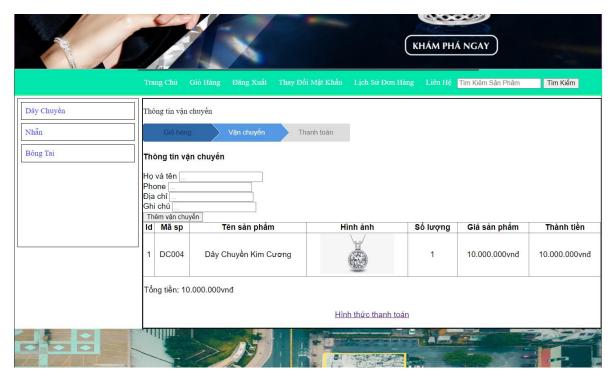


Figure 20 Enter Shipping Address

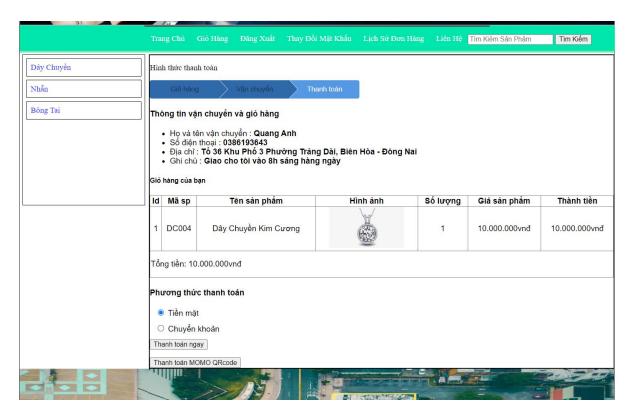


Figure 21 Choose Payment Method

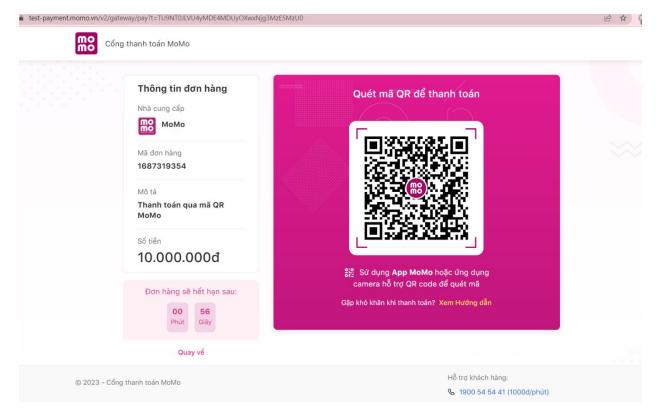


Figure 22 payment method: MoMo



Figure 23 Order Confirmation

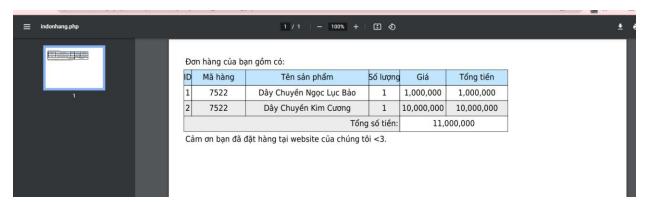


Figure 24 Printed Order

f. View Order History



Figure 25 View Customer Order History

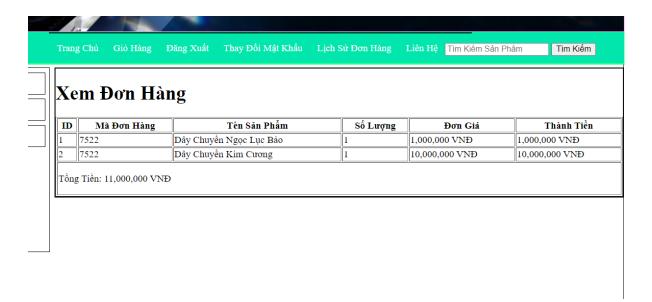


Figure 26 Customer View Order Detail

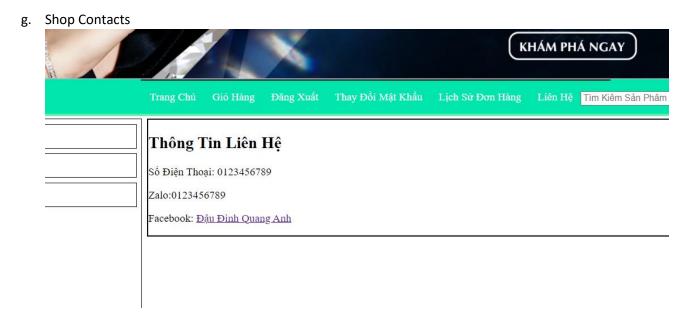


Figure 27 Shop Contact

Chapter 5: CONCLUSION

In conclusion, the development of the jewelry store management system has provided a solid foundation for efficiently managing inventory, sales, customers, and employees. Throughout the project, we have successfully implemented crucial features such as inventory management, customer management, sales recording, and report. These functionalities enable the jewelry store to maintain accurate inventory records, serve customers effectively, and monitor sales performance.

However, there are several areas where future improvements we would love to make in the future:

- Improve UI
- Apart from making reports on sales, we would love to generate reports for inventory tracking and customer relations.
- Integrate a full POS system.
- Improve stock tracking.
- Integrate supplier system.
- Have module for discount, promotion, return and warranty.
- Have module to manage employee.
- Have module to manage multiple physical stores.

References