Group Project Documentation
Basic Cross-Platform Application Programming with .NET

Gift E-commerce Application

Prepared by Group 6

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Revision History

Name	Date	Reason For Changes	Version
Team 6	July 19, 2023	Last updated version.	1.0.0

1. Project Introduction

1.1 Product Perspective

The Gift e-commerce application is a Windows Form application that serves as an online storefront for a gift shop. It allows customers to conveniently browse, select, and purchase from a wide range of options. The application integrates with a backend system for user management, order processing, and statistical handling. It offers features like account creation, order tracking, and notifications for customers, while providing administrative functions for the gift shop staff. The goal is to provide a seamless and engaging user experience, streamline the gift shopping process, and enhance customer satisfaction.

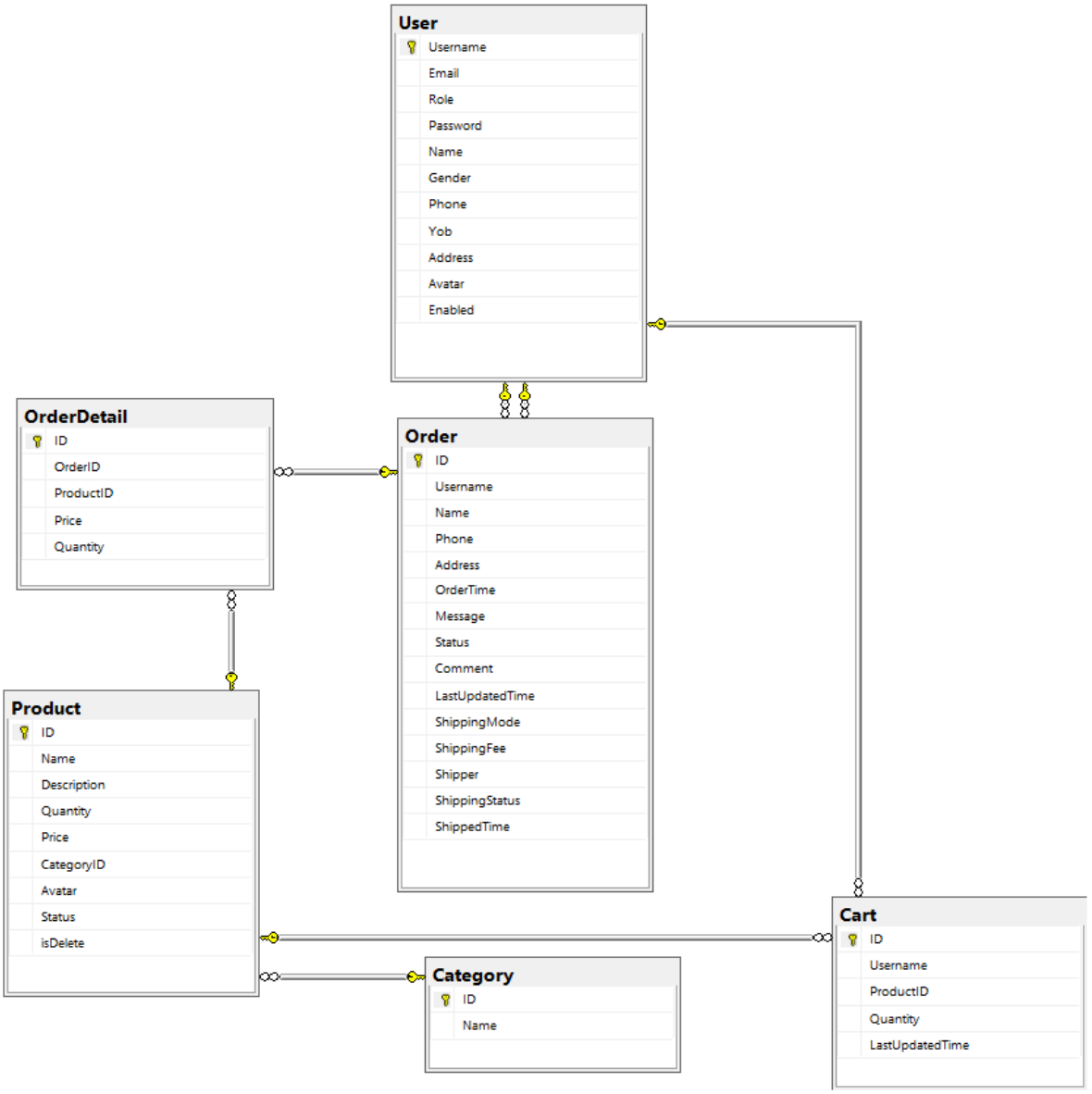
1.2 User Classes and Characteristics

Customers: They are the primary users of the application and expect a user-friendly interface. They may have varying levels of technical expertise and prefer features like saved preferences, order tracking, and personalised notifications.

Staff: These users have administrative privileges and are responsible for managing the backend system. They have tools for tasks such as updating product information, managing orders, and processing orders.

Admin: Their tasks include user management, view statistics of the shop.

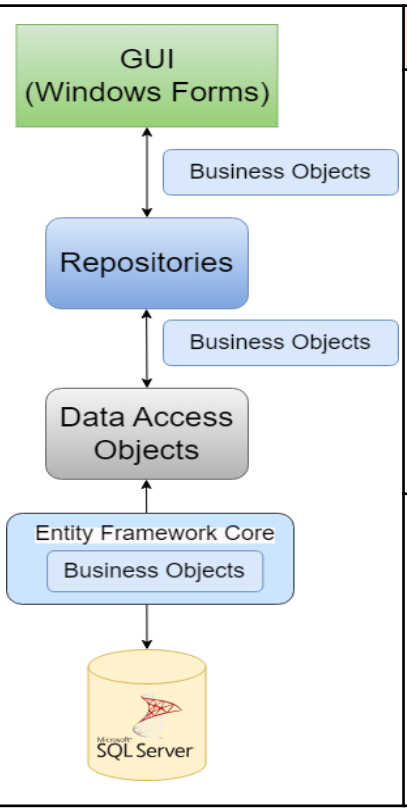
2. Database Design



No	Package	Description
01	***User***	*contains users' information* *Primary keys: email*
02	***Order***	*contains information about orders.* *Primary keys: id* *Foreign keys:* *-Username*
03	***OrderDetail***	*contains information about order details.* *Primary keys: id* *Foreign keys:* *-OrderId*

		-ProductId
04	***Product***	*-contains information about the product.* *-Primary keys: id* *-Foreign keys* *-CategoryID*
05	***Category***	*contains a product category list.* *Primary keys: id*
06	***Cart***	*contains customer's product in cart information.* *Primary keys:* *ID* *Foreign keys:* *-Username* *-ProductID*

3. System Architecture



No	Component	Description
01	***BusinessObjects***	*BusinessObjects can be employed to handle the business logic and data processing of the application.* *It acts as an intermediary between the presentation layer and the data access layer, encapsulating the business rules and operations.* *BusinessObjects can be utilised to perform tasks such as data validation, calculations, aggregations, and applying business rules to the retrieved data.*
02	***DataAccessObjects***	*The Data Access Layer (DAL) is responsible for managing the interaction between the application and the data storage systems.* *It consists of the DataAccessObjects that encapsulate the details of data access and provide a consistent interface for accessing the data.*

	03	***Repositories***	*Repositories act as a bridge between the BLL and the underlying data storage.* *They provide methods for querying, updating, and deleting data, as well as managing relationships and performing complex data operations.* *The repositories abstract the complexities of the data storage technology and provide a simplified interface for the BLL to interact with the data*

4. Implementation

4.1. Deployment Considerations

Target Operating System: Identify the target operating system(s) for deployment, such as Windows 10, Windows Server, or other supported versions. Ensure that the application is compatible with the selected operating system(s).

Hardware Requirements: Determine the minimum hardware requirements for running the application, including processor, memory, and storage specifications. Communicate these requirements to end-users or system administrators.

Installation Package: Create an installation package for the application using tools like Visual Studio Installer or third-party packaging solutions. The package should include all necessary files, dependencies, and prerequisites required for the application to run successfully.

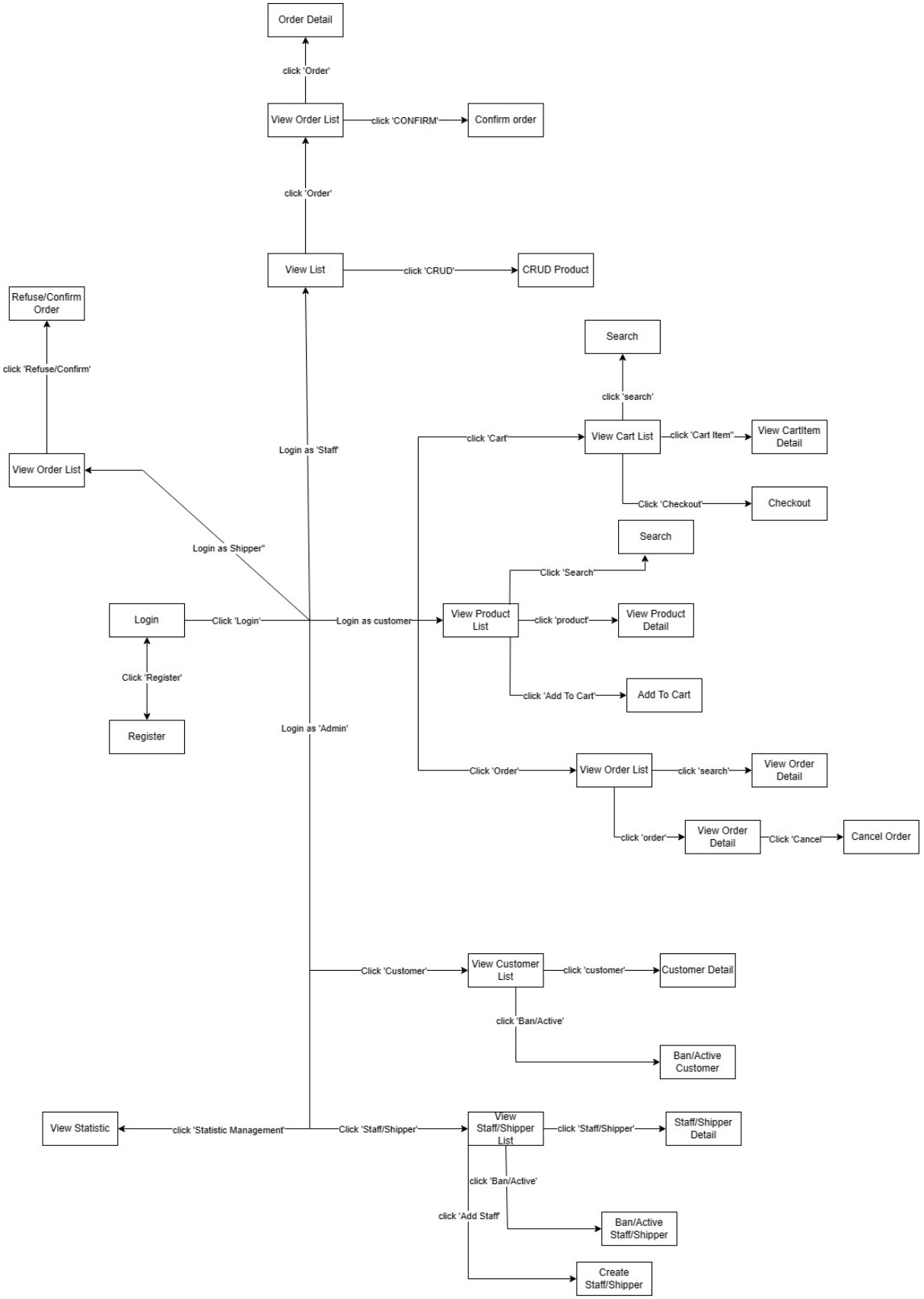
Prerequisites and Dependencies: Identify any additional software components or frameworks (such as .NET Core runtime) that are required for the application to function properly. Include these dependencies in the installation package or provide clear instructions for users to install them separately.

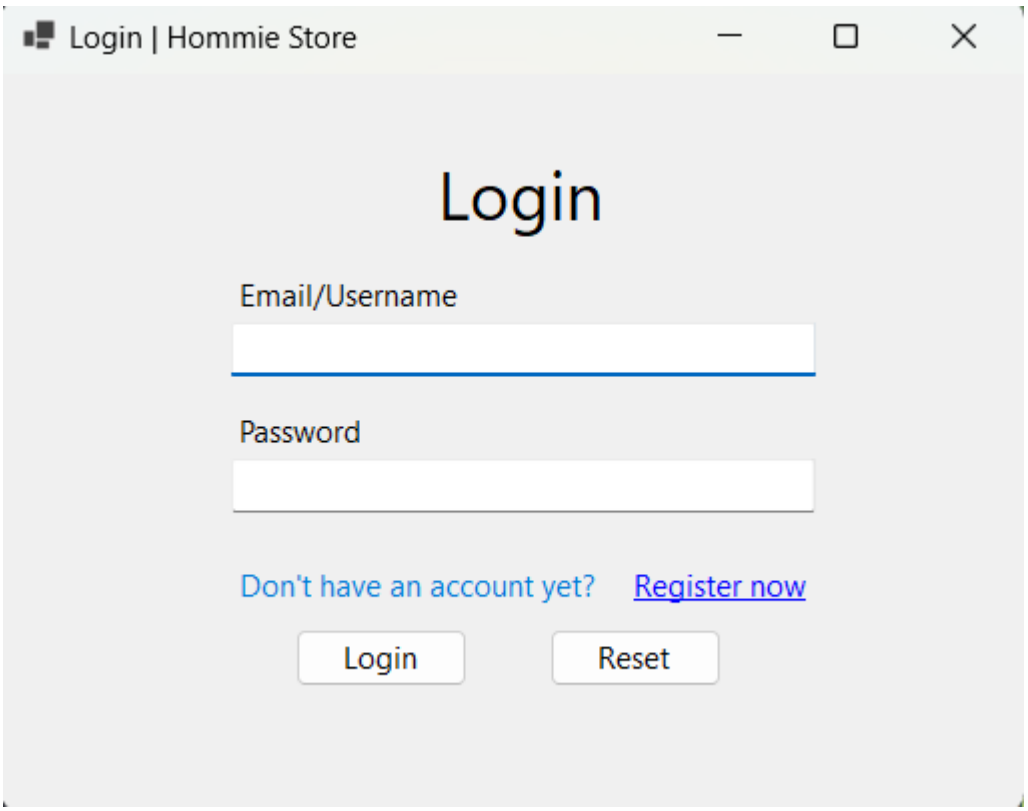
Configuration Settings: Define and document any configuration settings required the application, such as database connection strings, API keys, other environment-specific variables. Consider using configuration files or registry settings to manage these configurations during deployment.

Testing and Quality Assurance: Conduct thorough testing of the application before deployment to identify and fix any bugs issues. Perform functional testing, compatibility testing, and performance testing to ensure the application meets the desired quality standards.

Rollback Plan: Prepare a rollback plan in case any issues arise during the deployment process. This plan should outline steps to revert to the previous version of the application or restore the system to its previous state.

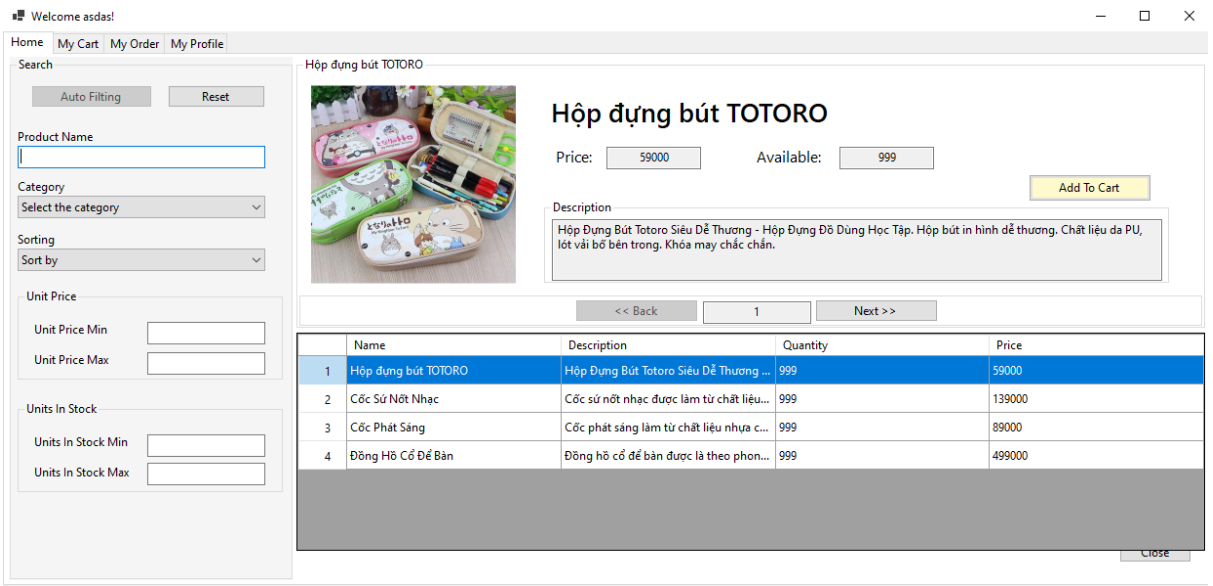
4.2. Screenshots and explanations



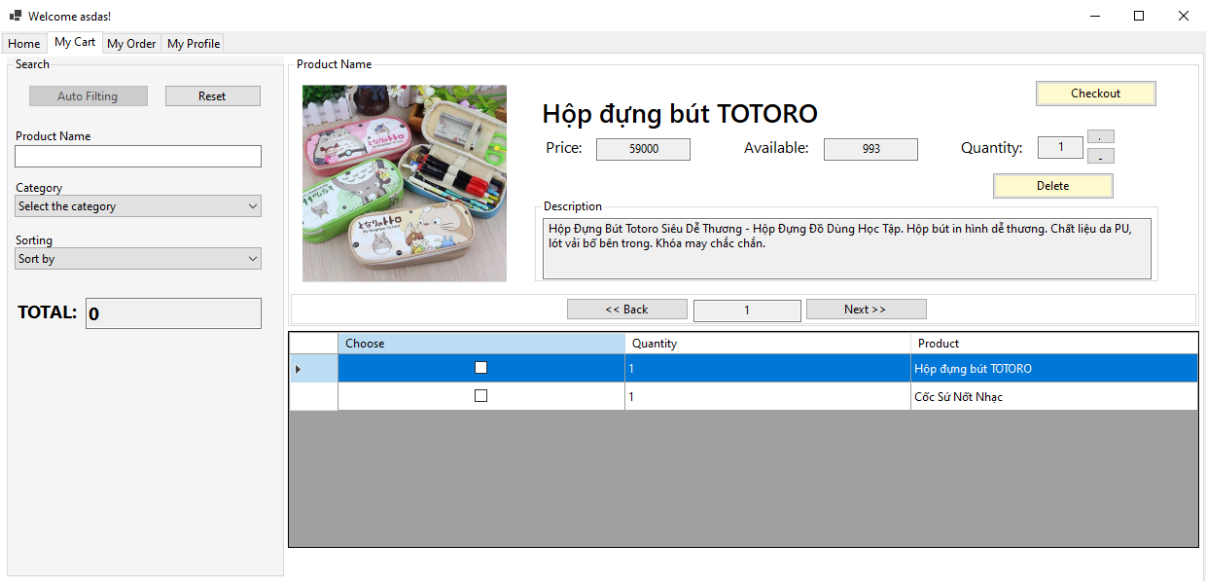


CUSTOMER

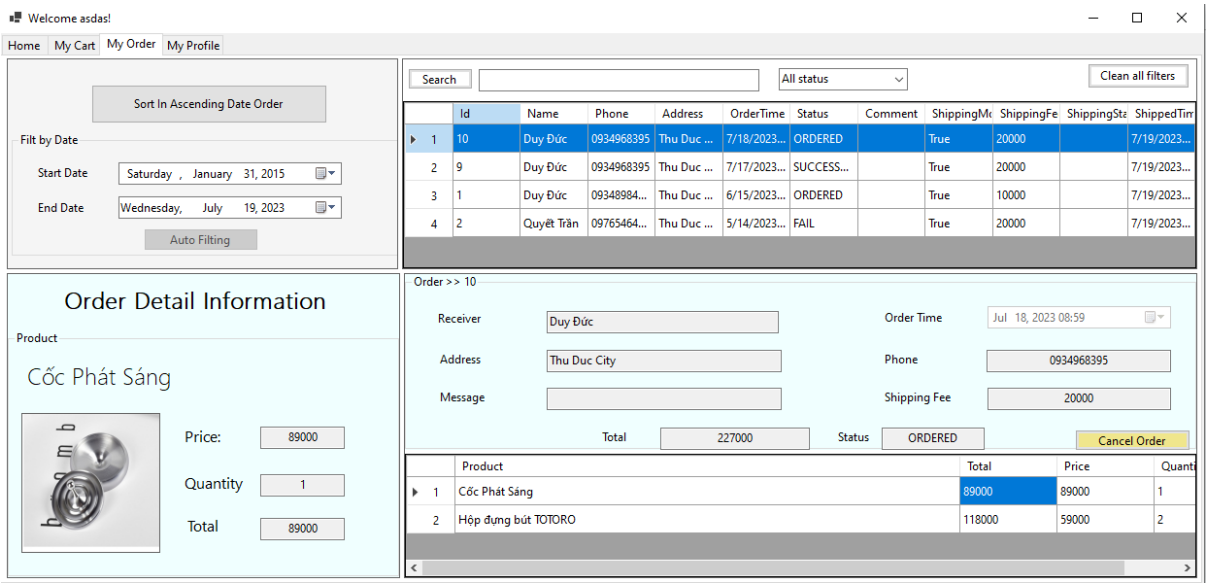
Home



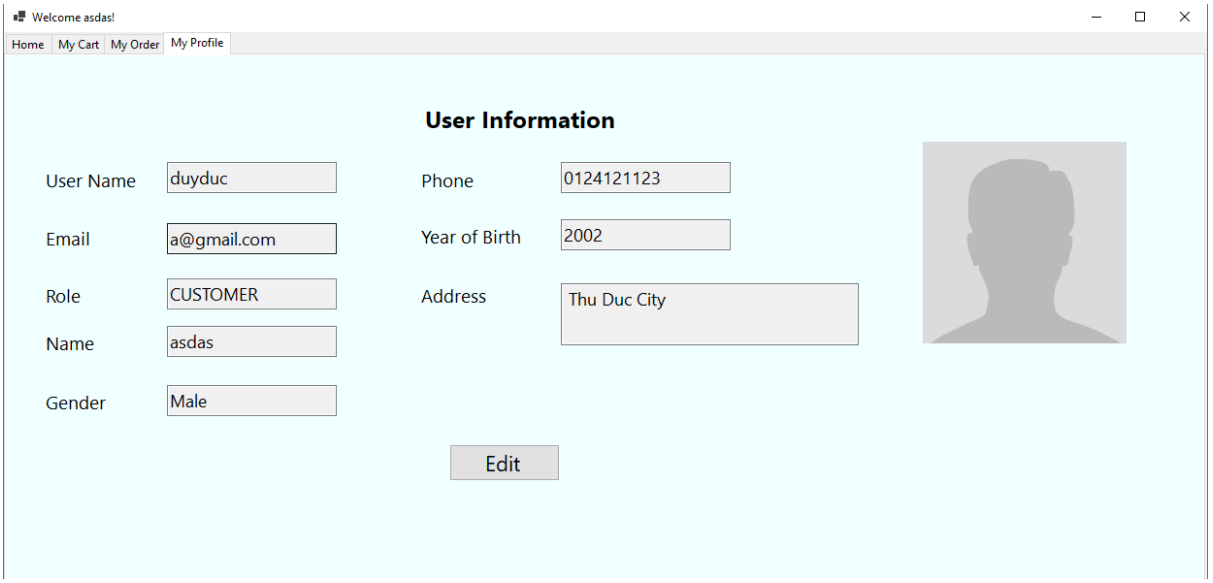
Cart


Welcome asdas!
Home
My Cart
My Order
My Profile
Search
Auto Filting
Reset
Product Name
Category
Select the category
Sorting
Sort by
TOTAL: 0
Product Name
Hộp đựng bút TOTORO
Checkout
Price: 59000
Available: 993
Quantity: 1
Delete
Description
Hộp Đựng Bút Totoro Siêu Dễ Thương - Hộp Đựng Đồ Dùng Học Tập. Hộp bút in hình dễ thương. Chất liệu da PU, lót vải bố bên trong. Khóa may chắc chắn.
<< Back
1
Next >>
Choose
Quantity
Product
1
Hộp đựng bút TOTORO
1
Cốc Sứ Nốt Nhạc

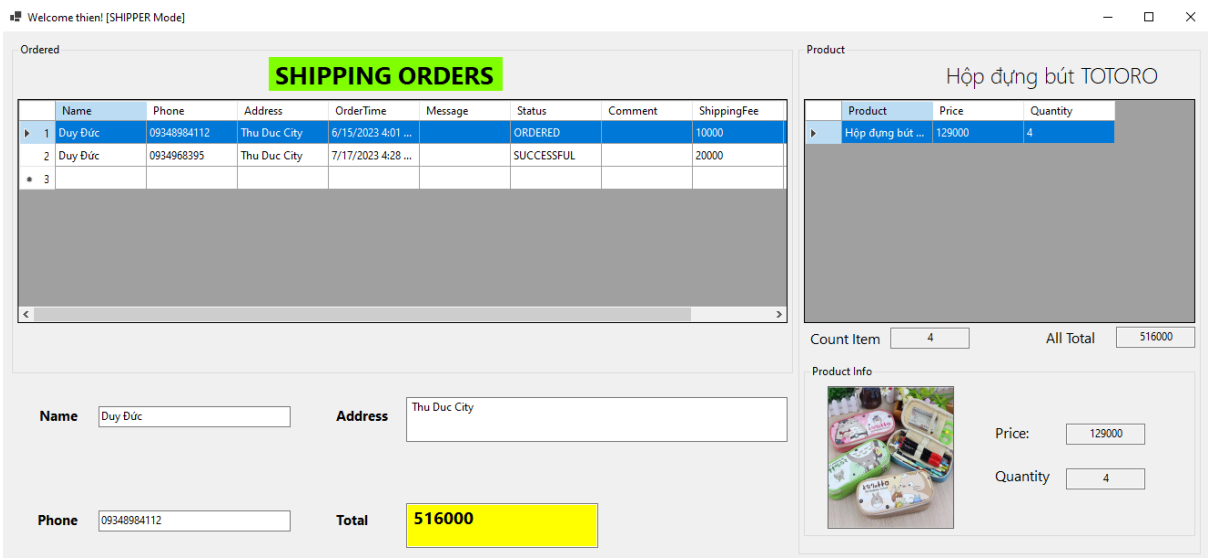
Order


Welcome asdas!
Home
My Cart
My Order
My Profile
Sort In Ascending Date Order
Filt by Date
Start Date
Saturday , January 31, 2015
End Date
Wednesday, July 19, 2023
Auto Filting
Search
All status
Clean all filters
Id
Name
Phone
Address
OrderTime
Status
Comment
ShippingMe
ShippingFe
ShippingSta
ShippedTim
1 10 Duy Đức 0934968395 Thu Duc ... 7/18/2023... ORDERED True 20000 7/19/2023...
2 9 Duy Đức 0934968395 Thu Duc ... 7/17/2023... SUCCESS... True 20000 7/19/2023...
3 1 Duy Đức 09348984... Thu Duc ... 6/15/2023... ORDERED True 10000 7/19/2023...
4 2 Quyết Trần 09765464... Thu Duc ... 5/14/2023... FAIL True 20000 7/19/2023...
Order Detail Information
Product
Cốc Phát Sáng
Price: 89000
Quantity 1
Total 89000
Order >> 10
Receiver Duy Đức
Address Thu Duc City
Message
Order Time Jul 18, 2023 08:59
Phone 0934968395
Shipping Fee 20000
Total 227000
Status ORDERED
Cancel Order
Product
Total
Price
Quanti
1 Cốc Phát Sáng 89000 89000 1
2 Hộp đựng bút TOTORO 118000 59000 2

Profile

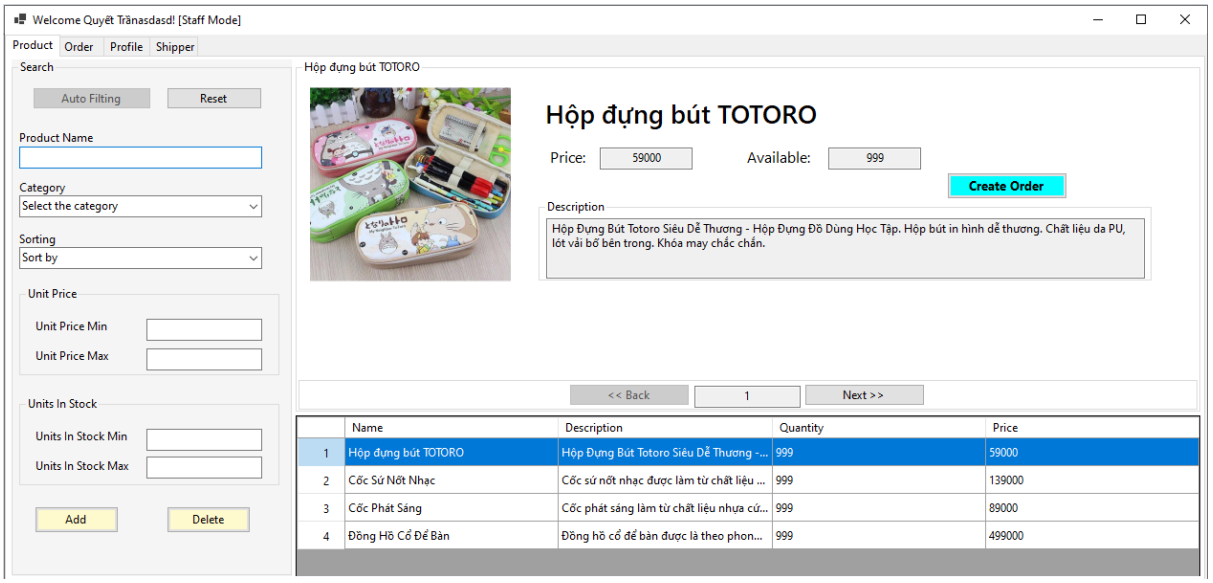


SHIPPER

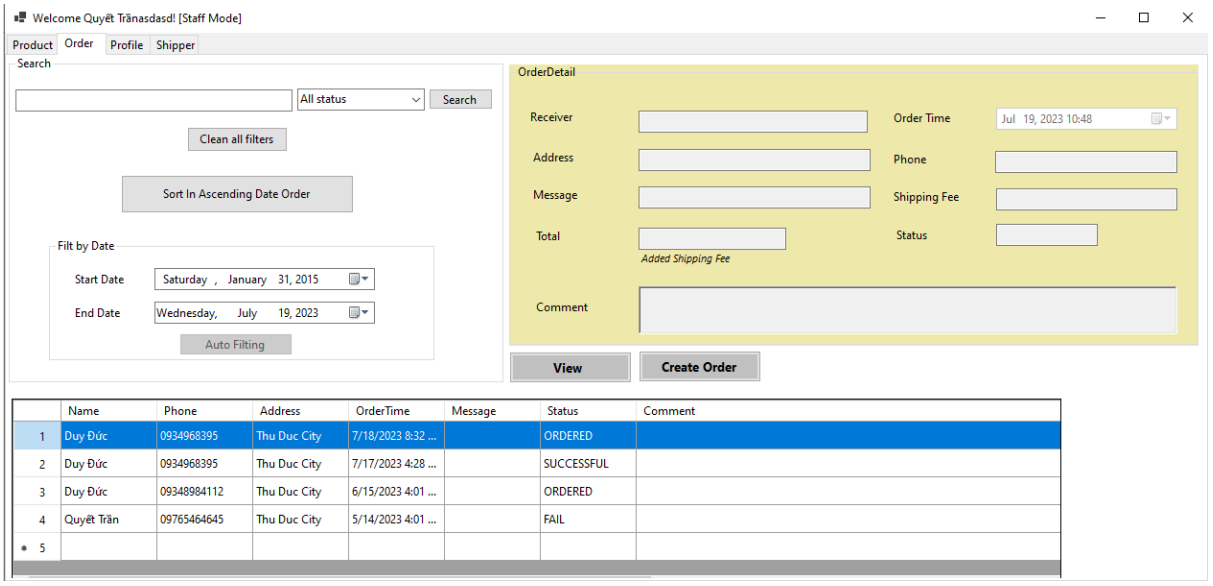


STAFF

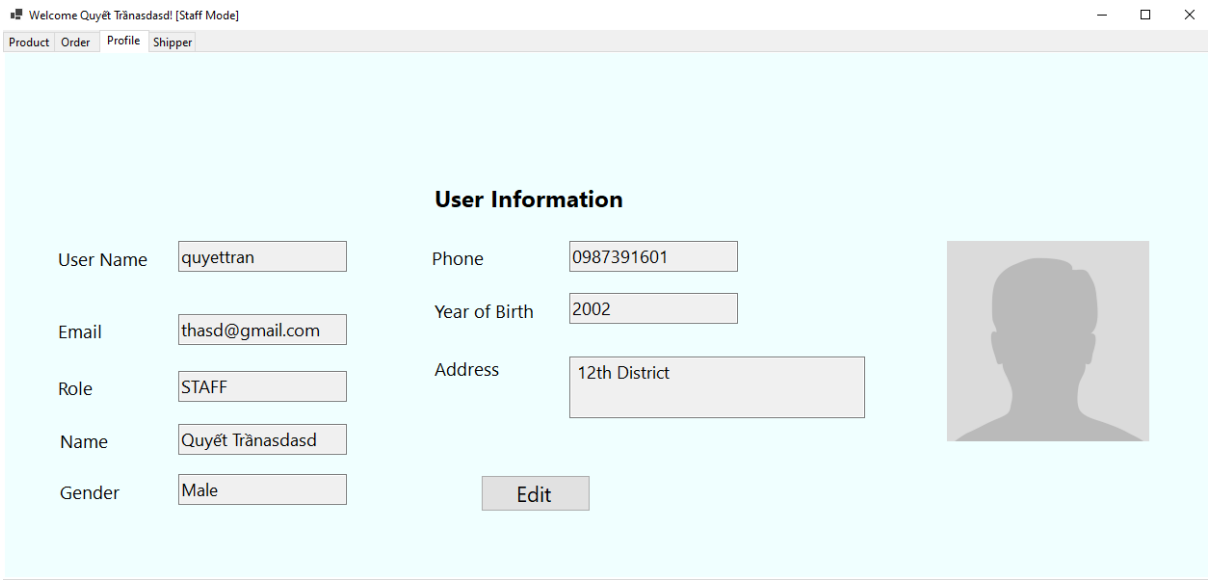
Home



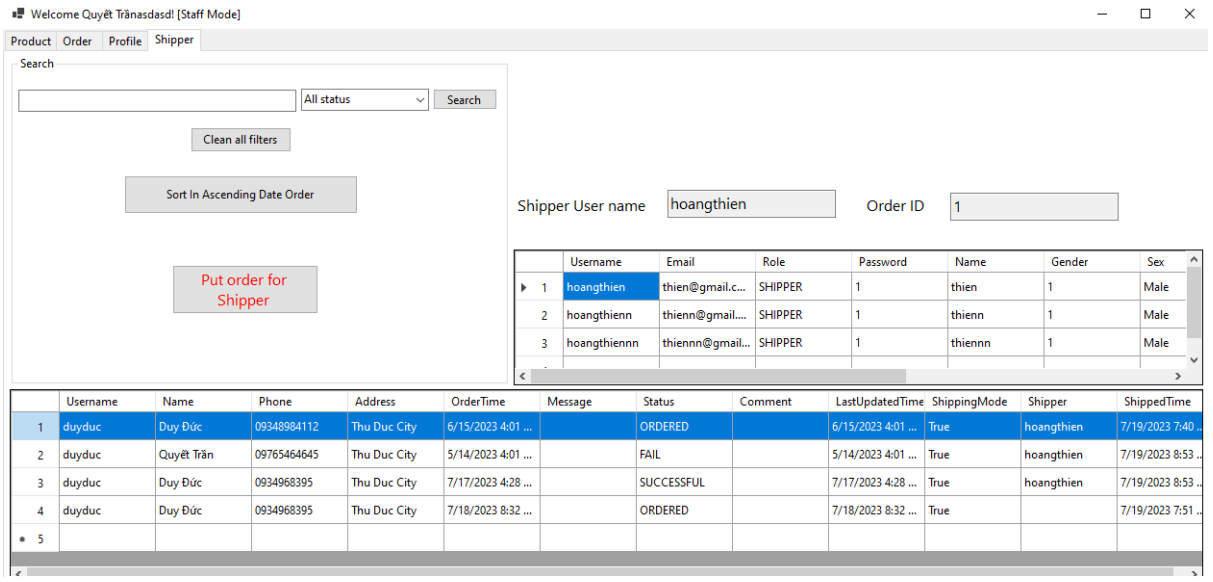
Order



Profile

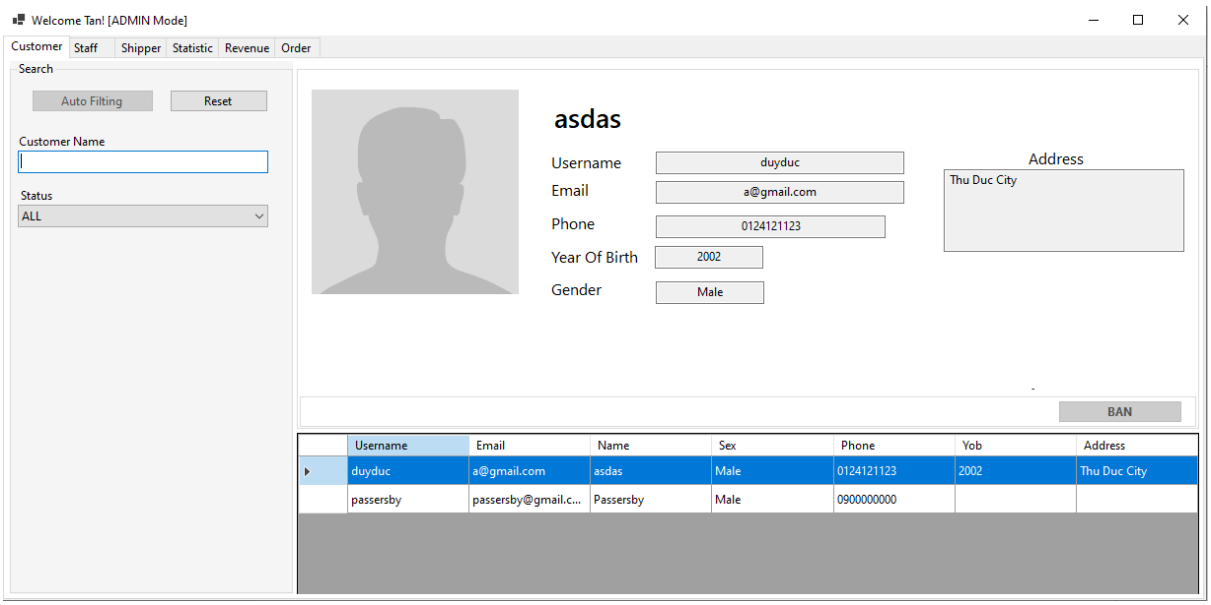

Welcome Quyết Trănasdasd! [Staff Mode]
Product
Order
Profile
Shipper
User Information
User Name
quyettran
Email
thasd@gmail.com
Role
STAFF
Name
Quyết Trănasdasd
Gender
Male
Phone
0987391601
Year of Birth
2002
Address
12th District
Edit

Shipper

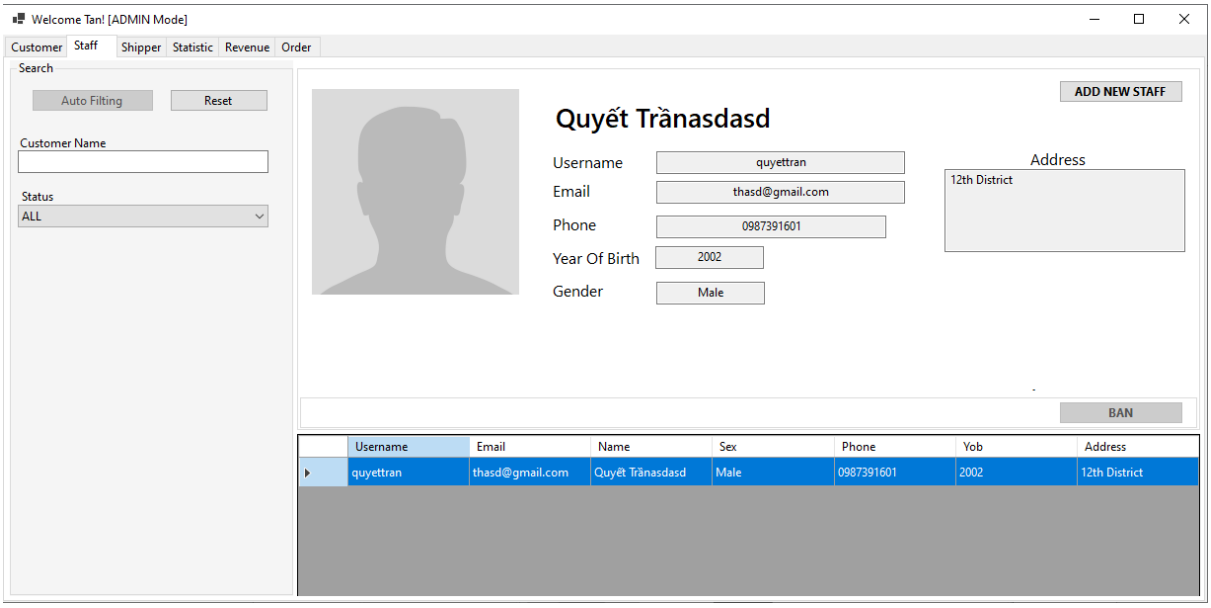

Welcome Quyết Trănasdasd! [Staff Mode]
Product
Order
Profile
Shipper
Search
All status
Search
Clean all filters
Sort In Ascending Date Order
Put order for Shipper
Shipper User name
hoangthien
Order ID
1
Username Email Role Password Name Gender Sex
1 hoangthien thien@gmail.c... SHIPPER 1 thien 1 Male
2 hoangthienn thienn@gmail.... SHIPPER 1 thienn 1 Male
3 hoangthiennn thiennn@gmail... SHIPPER 1 thiennn 1 Male
Username Name Phone Address OrderTime Message Status Comment LastUpdatedTime ShippingMode Shipper ShippedTime
1 duyduc Duy Đức 09348984112 Thu Duc City 6/15/2023 4:01 ... ORDERED 6/15/2023 4:01 ... True hoangthien 7/19/2023 7:40 ...
2 duyduc Quyết Trăn 09765464645 Thu Duc City 5/14/2023 4:01 ... FAIL 5/14/2023 4:01 ... True hoangthien 7/19/2023 8:53 ...
3 duyduc Duy Đức 0934968395 Thu Duc City 7/17/2023 4:28 ... SUCCESSFUL 7/17/2023 4:28 ... True hoangthien 7/19/2023 8:53 ...
4 duyduc Duy Đức 0934968395 Thu Duc City 7/18/2023 8:32 ... ORDERED 7/18/2023 8:32 ... True 7/19/2023 7:51 ...
5

ADMIN

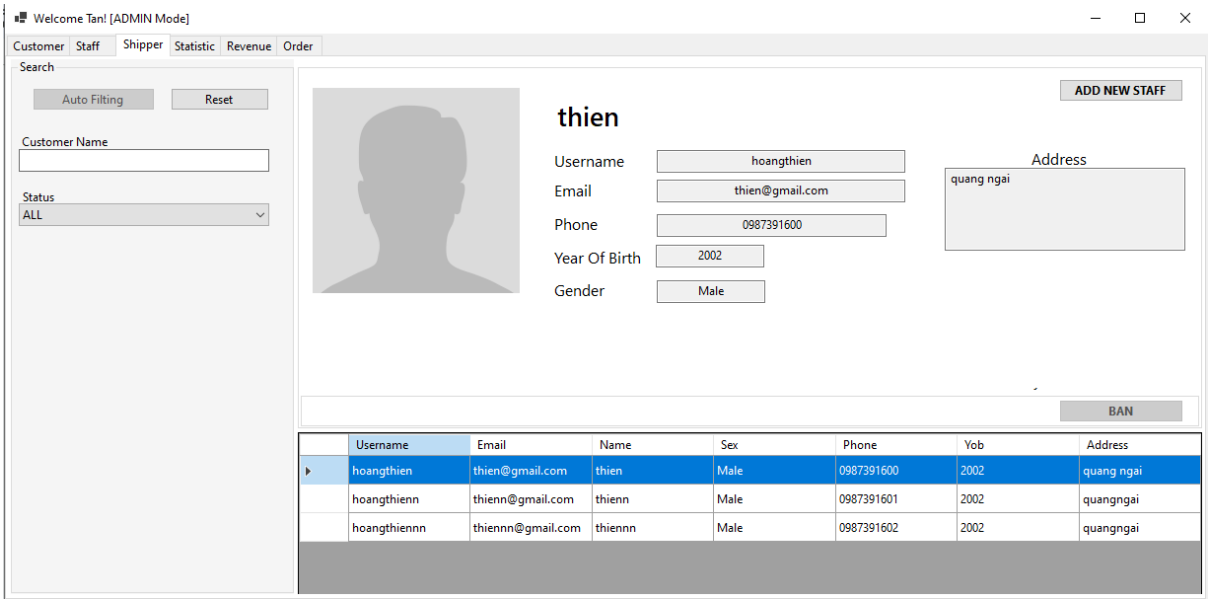
Customer



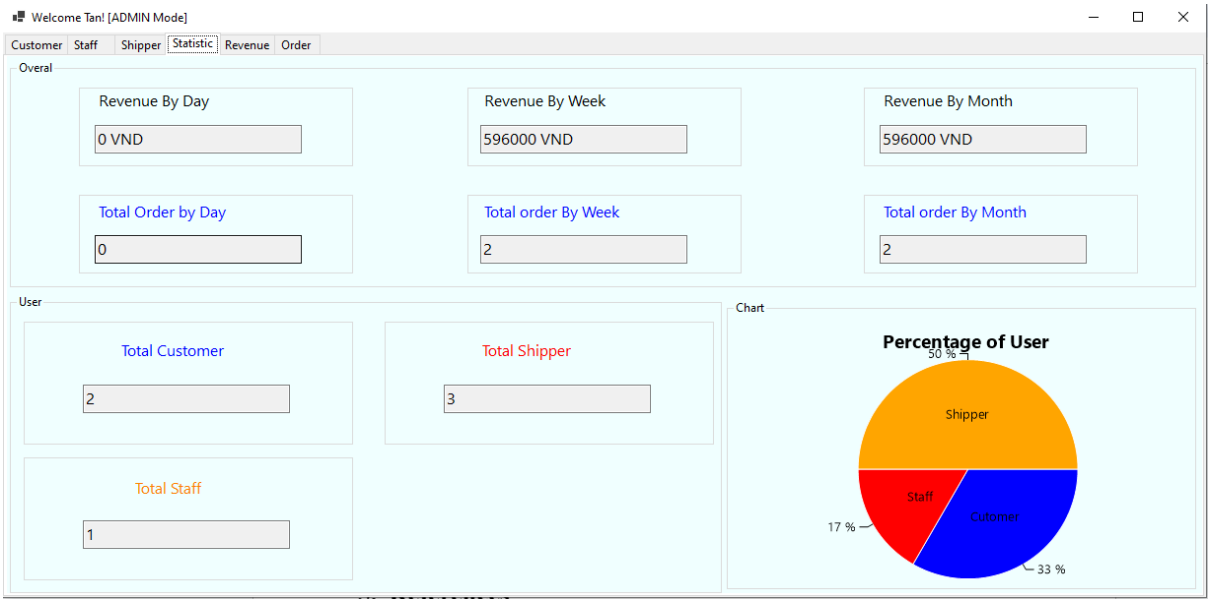
Staff



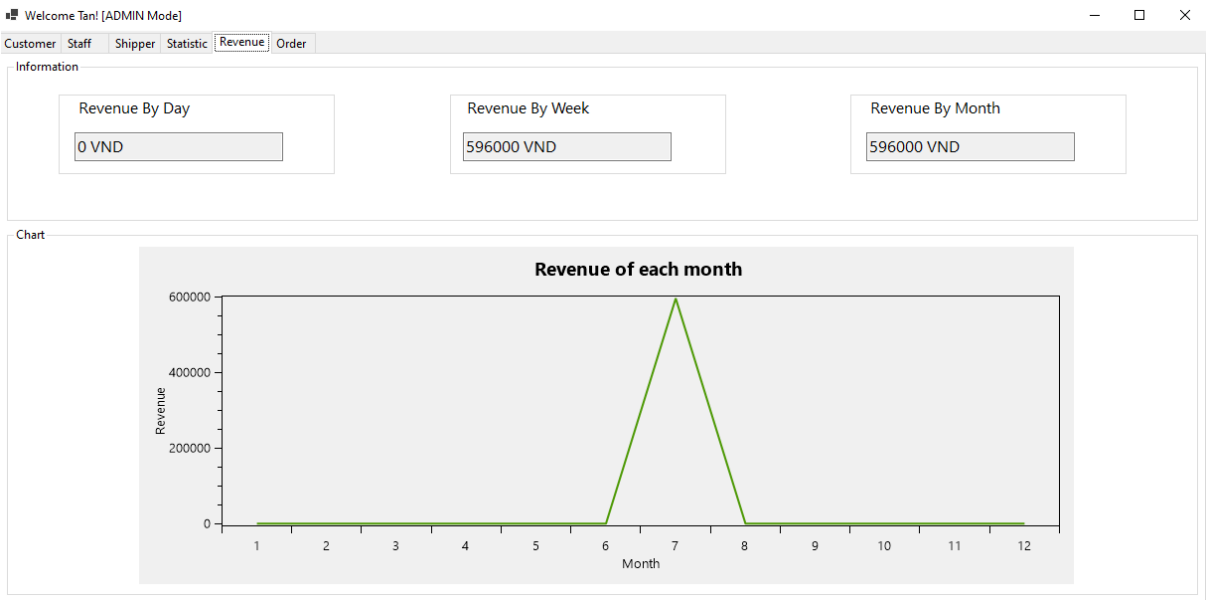
Shipper



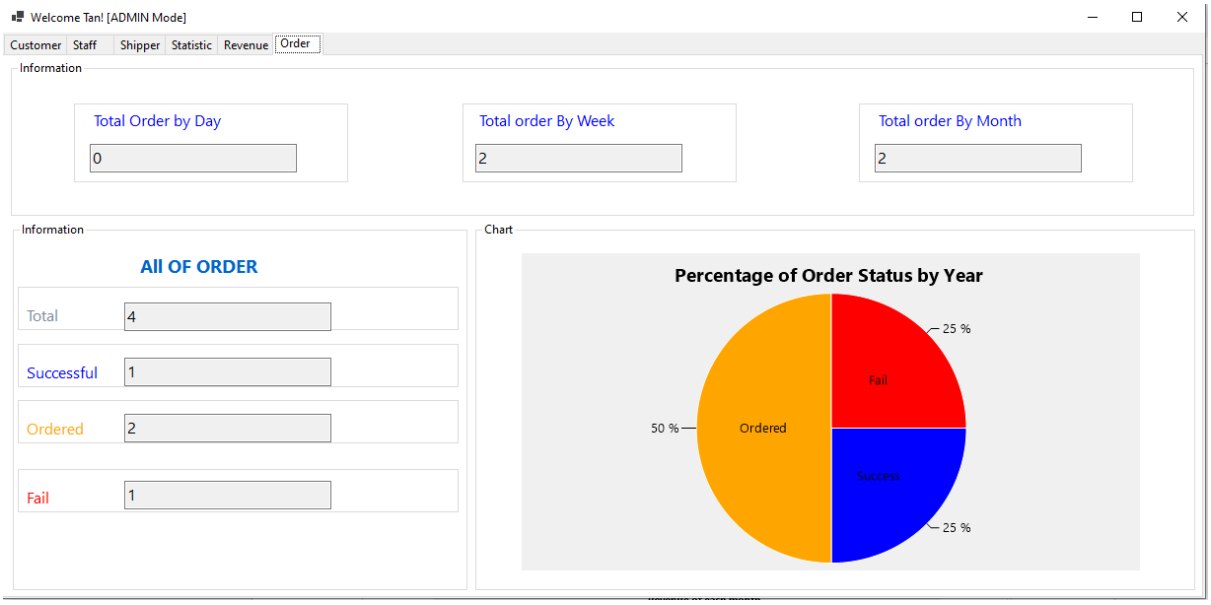
Statistic



Revenue



Order



5. References