Management System for Imtek Graphics Diploma in Computer System Design

Final Project 2023

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National Institute of Business Management Colombo 07

Management System for Imtek Graphics

Diploma in Computer System Design

The Project is submitted in partial fulfillment of requirements of the diploma of computer system design of national institute of business management.

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Declaration

"The project is submitted in partial fulfillment of the requirement of the diploma of computer system design of National Institute of Business Management."

Declaration

"I certify that this project does not incorporate without acknowledgement, any material previously

submitted for a Diploma in any institution and to the best of my knowledge and belief, it does not

contain any material previously published or written by another person or myself except where

due reference is made in the text. I also hereby give consent for my project report, if accepted, to

be made available for photocopying and for interlibrary loans, and for the title and summary to be

made available to outside organizations"

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Preamble

Abstract

Nowadays ICT become reality and usage of ICT become very much popular and there is tremendous increase of ICT all over the world for education purposes. The student management system is easy to useful featured and flexible.

Our proposed management system for imtek graphics will eliminate all the monthly interventions and increase the speed of the whole process.

The system include several sections. The requirements of data consistency, data integrity, data security are ensured base on the requirement analysis of this project. The database structure is designed and related functions of this system are also designed. The information, automation, standardization of the management system can be satisfied by the project. The system will work very well and solve the manual operation problems of management system effectively.

List of keyword			
Imtek Graphics			
Admin			
Designer			
Customer			
Stock Keeper			
Assistant			
Cashier			
Supplier			

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List of Acronyms and Abbreviations

NIBM - National Institute of Business Management

DCSD – Diploma in Computer System Design

PDF – Portable Document Format

UI – User Interface

SQL – Structured Query Language

IDE – Integrated Development Studio

UML – Unified Modeling Language

PK – Primary Key

FK – Foreign Key

Acknowledgment

It is a great pleasure to remind those who helped us in preparing this project and those who guided us to achieve this target. With the guidance of the course director we were able to complete the project by gaining information which would help us in the future of our careers.

On each step completed, we were able to gain experience in those fields by investigating thoroughly on those fields. Researches were done to improve our knowledge based on those investigations and researches.

On such a great achievement it is our due responsibility to thank the once who have helped in this achievement.

The course director of Diploma in computer system design. Mr. Keshan Narangoda gave us his fullest cooperation and support to build up this project with proper guidance first and foremost thanks must be given to him.

The help from all these personals helped us in achieving, learning and experience from this project.

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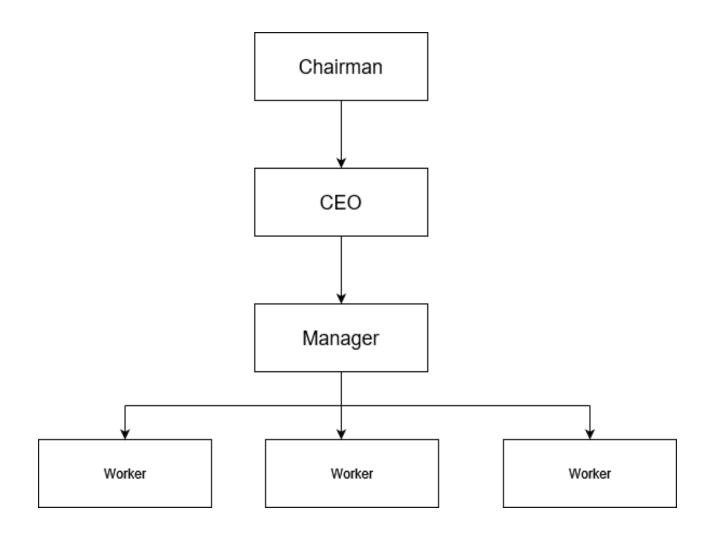
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Chapter 1: Introduction

1.1 Introduction of the Organization

- Imtek Graphics is a leading company in Maharagama that designs and supplies printed garments for the textile industry. Mr. Ranjith Wijesinghe founded this company in 2005. This company consists of the graphic designing sector and the printing sector.
- Mr. Ranjith Wijesinghe is the head of the company. He manages all the sectors in the company and is responsible for all decision-making in the company.
- Mrs.Rajitha Shamini is in charge of all of the company's accountants as well as the marketing department.
- This company has four employees who are in charge of providing high-quality sublimation printing services.
- We propose a project to develop an efficient management system customized to the unique requirements of this sublimation printing company. This system will improve current operations and challenges while developing the foundation for more efficient and expandable business processes. We believe in improving productivity, reducing operational obstacles, and improving overall decision-making by implementing this management system.

1.2 Organization Structure



1.3 Current Operation in Organization

This company currently operates with manual processes and disjointed software solutions. There are some areas of operation that include order management, production scheduling, inventory tracking, quality control, and customer communication. These processes are often time-consuming, prone to errors, and lack real-time visibility.

The current operation begins with the customer providing ideas for the designers to design the sample with all of the adjustments. Once the final design is approved and complete, it is sent to be printed, which consists of two parts: taking printouts based on the order quantity and then finally sending to the pressing where the fabric is printed with the design. After inspecting the quality of the garments, they are delivered to the customer along with an invoice detailing the specific order details and amount.

1.4 Problem Definition

- Inefficiency: Manual data entry and communication result in inefficiencies and errors that impact order fulfillment and customer satisfaction.
- Lack of Coordination: Disconnected systems hinder communication between departments, leading to production delays and misalignment of resources.
- Inventory Issues: Difficulty in tracking raw materials and finished goods can lead to stockouts or overstock situations, affecting production planning.
- Quality Control: Inadequate quality control mechanisms result in inconsistencies in print quality, leading to customer complaints.
- Data Accessibility: The absence of real-time data access makes it challenging to make informed decisions, monitor progress, and identify areas for improvement.

1.5 Project Objectives

Efficiency Improvement: Streamline operations to reduce manual efforts and errors, leading to increased efficiency and reduced costs.

Enhanced Coordination: Implement a unified management system that facilitates seamless communication and collaboration among departments.

Inventory Optimization: Develop an inventory tracking system to maintain optimal stock levels and minimize production disruptions.

Quality Assurance: Introduce quality control measures to ensure consistent and high-quality prints.

Real-time Insights: Create a dashboard for real-time data access, enabling better decision-making and performance monitoring.

1.6 Proposed Solution

Implementation of a System: customized for the designing and the sublimation printing needs which will automate order management, production scheduling, and inventory tracking.

Communication Portal: Develop an internal communication portal to facilitate communication and collaboration, ensuring timely updates and efficient resource allocation.

Inventory Management System: Implement an inventory management system solution to monitor raw material and finished goods levels, providing accurate demand forecasting and reducing stock-related issues.

Quality Control Processes: Establish standardized quality control procedures, including regular testing, inspections, and employee training, to ensure consistent print quality.

Real-time Dashboard: Create a user-friendly, real-time dashboard that provides key performance indicators, allowing management to make informed decisions and track progress.

Functional Requirements

• Login(admin, employees, customers)

Admin, employees, and customers can log into the system using username and password.

• Logout(admin, employees, customers)

Admin, employees, and customers can logout from the system.

• Register new employees and customers

Admin can register new employees and customers for the system using the employee details and customer details.

• Register attendances of employees

Admin and employees can record the details of the attendance.

• Password recovery

If any user forgets their password, they can recover the password by using their E-mail.

• Record the proceedings of orders and add new orders

Admins and employees can adjust records of orders and add new orders to the system.

• Record of payment of each order.

Admins can record the order details with the amount sent to the customer and proceed to payment.

• Record the salary details of the employees

Admin can record the salary details at the end of each month.

• Generate order details report

Admins and employees can generate order details report and updates of the particular order to customers.

• Generate invoice for the customer

Admin can generate the invoice for a particular order amount with details to the customer.

• Generate income reports

At the end of each month, admins can generate income reports which can be only viewed by the admins.

Dashboard for viewing the progress and portal for communication
 Customers can view the progress of a particular order and the portal helps the customer communicate the information when necessary.

Non-functional Requirements

In this system, user authentication is an important factor, each user will log in using a unique username and password assigned by the company's administrators. The access will then be efficient, and the system will be safe.

The system will be user-friendly, with simple interfaces for entering information into the appropriate forms. The system will be well-planned with few errors, will secure every essential detail, and will be easy to maintain.

Benefits

- Increased Efficiency: Automation and streamlined processes will lead to reduced labor costs and improved productivity.
- Improved Communication: Enhanced collaboration will result in quicker decision-making and resource optimization.
- Inventory Optimization: Better inventory management will minimize stock-related issues and reduce carrying costs.
- Quality Assurance: Consistent print quality will boost customer satisfaction and reduce rework.
- Real-time Insights: Access to real-time data will enable data-driven decision-making and performance monitoring.

1.7 Chapter Summary

This project proposal outlines our plan to create a management system tailored to the Imtek graphics sublimation printing company's specific needs. By focusing on the identified challenges through the implementation of a system, communication portal, inventory management system, quality control measures, and a real-time dashboard, we aim to improve operational efficiency, communication, inventory management, print quality, and decision-making. We believe that this project will set the stage for sustainable growth and competitive advantage in the sublimation printing industry.

Chapter 2: Methodology

2.1 Introduction

In this chapter, we'll discuss the data collection method(s), software process model and the Software development tool that we going to create the system.

2.2 Data Collection Method(s)

- Meet the Mr.Ranjith Wijesinghe and get the details regarding the order.(Customer details, Order details etc.).
- Talk with the designer to know about their design.
- Questioning them for more details.
- Know their satisfaction and problems.

2.3 Software Process Model

To implement this project, we have used the waterfall method, which is continuous model that has been used project development flows smoothly to create different types of software downward through phases of software development requirements. Analysis, UI design, software implementation, project validation, and software maintenance.

The project is divided into five different phases which are project planning, requirement collection, project implementation, interface design, implementation, system testing, maintenance, and system upgrade. Proposed Management system starts with project planning by determining the system, objectives, and users.

Objectives of the project. After this, extensive research was done to determine how to design a useful system, as well as a review of the current system. Then, the design is with the beginning prototyped the system and then refined it based on their suggestions. Phases of analysis, design and implementation are iterative until users and designers finally agree on the system specification. At this point, the project can move to the final implementation phase.

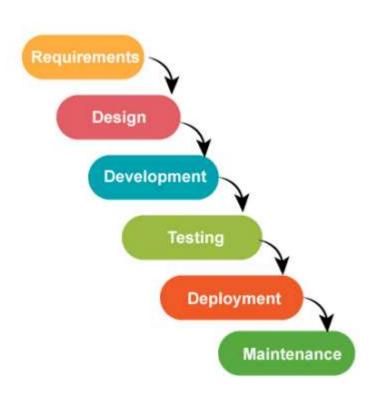


Figure 1:waterfall methods

2.4 Software Development Tools

• Microsoft Visual Studio



Visual Studio is an integrated development environment from Microsoft. It is used to develop computer programs, as well as websites, web apps, web services and mobile apps.

• Microsoft SQL Server



Microsoft SQL Server is a relational database management system developed by Microsoft. As a database server, it is a software product with the primary function of storing and retrieving data as requested by other software applications—which may run either on the same

computer or on another computer across a network.

Microsoft Azure



Microsoft Azure, often referred to as Azure is a cloud computing service operated by Microsoft for application management via Microsoft-managed data centers. It provides software as a service, platform as a service and infrastructure as a service and supports many different programming languages, tools, and frameworks, Including both Microsoft-specific and third-party software and systems.

Metro Framework

Microsoft Design Language, previously known as Metro, is a design language created by Microsoft. This design language is focused on typography and simplified icons, absence of clutter, increased content to chrome ratio, and basic geometric shapes.

2.5 Testing Strategies

- Software testing, I the process of assessing and confirming that a software application or product performs as intended. Testing has advantages such as bug prevention, lower development costs, and better performance.
- We used black box testing as the testing strategy in our software, black box testing is a method of software testing that looks only at the software's functioning without looking at its coding or internal structure. In this method, the tester chooses a function, provides an input value to test its functionality, and determines whether the function produces the desired results. Software's functioning without looking at its coding or internal structure. IN this method, the tester chooses a function, provides an input value to test its functionality, and determines whether the function produces the desired results.



2.6 Implementation Plan

• When implementing this system, we use the parallel running method. In this method, both systems old and new systems are used simultaneously. The advantages of this method are providing a fallback when the new system fails and offering the greatest security and ultimately testing the new system. The disadvantages are high cost because we need to run both a manual system and a computerized system simultaneously and the new system may not get a fair trial.



2.7 Chapter Summary

- The main goal should be to solve the problems the manual method is currently facing.
- To build the project, we used the waterfall model, black box testing as the testing approach, and the software development tools.

Chapter 3: Analysis

3.1 Introduction

This chapter contents use case diagram of current system, use case diagram of proposed system, class diagram of proposed system, sequence diagrams for proposed system, ER diagram of the proposed system.

3.2 UML Diagram

Use Case Diagram of Current System

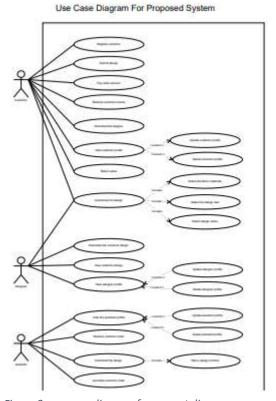


Figure 2: use case diagram for current diagram

Use Case Diagram of Proposed Management System

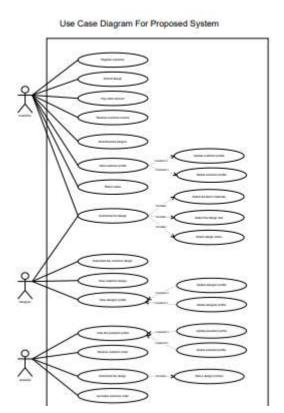


Figure 3: use case diagram for proposed management system

Class Diagram of Proposed System.

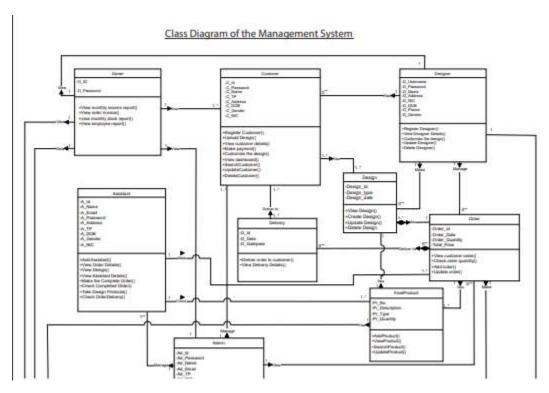


Figure 4: class diagram

Sequence Diagrams (Each Use case) for Proposed System.

Sequence diagram for login Login class Login UI Database Enter username & password Click login Enter username & plassword Click login Validate username & password Validate username & password validate success Account verified Account verified Redirect to cashier dashboard Redirect to admin dashboard Redirect to assistant dashboard Redirect to designer dashboard Redirect to customer dashboard Else Account verified failed Account verified failed Display login failed Complete Display login failed Display login failed Display login failed Dsplay login failed $\langle \times \times \times \times \rangle$

Figure 5: sequence login

Sequence diagram for signup Signup class Signup UI Database Customer Designer Assistant Admin Cashier Enter user details Click signup Transfer user details Transfer user details Account verified Account verified User created successful ✓-----User created successful User created successful User created successful User created successful $\times \times \times \times$

Figure 6: sequence signup

Sequence diagram for Register the Customer

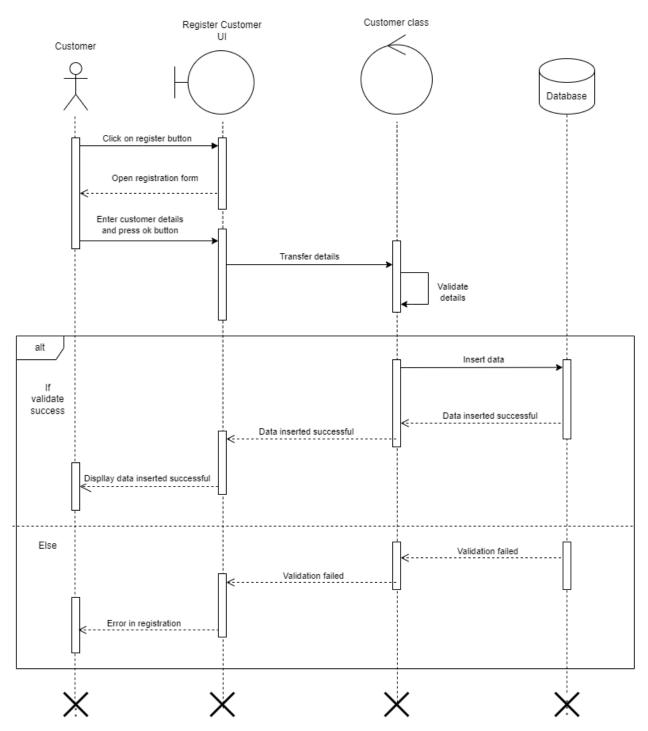


Figure 7: sequence register the customer

Sequence diagram for Submit the design

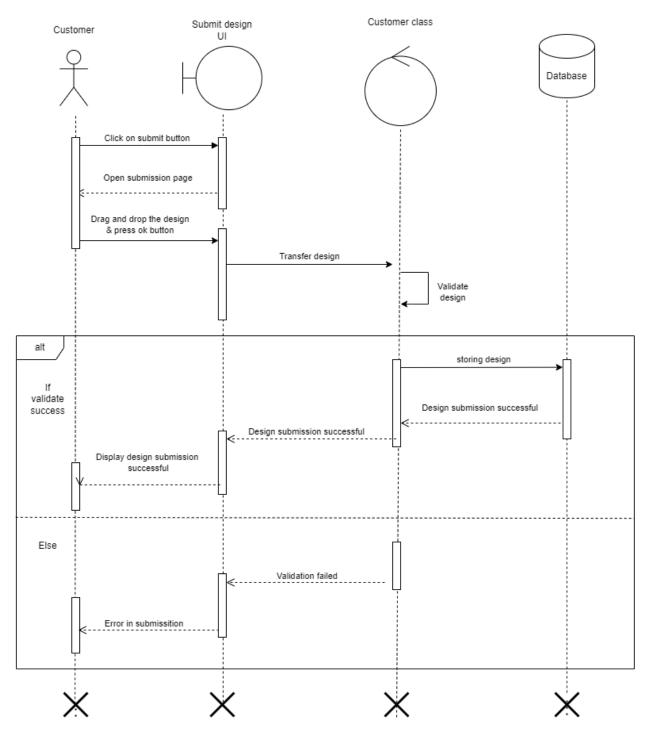


Figure 8sequence submit the design

Sequence diagram for pay order amount

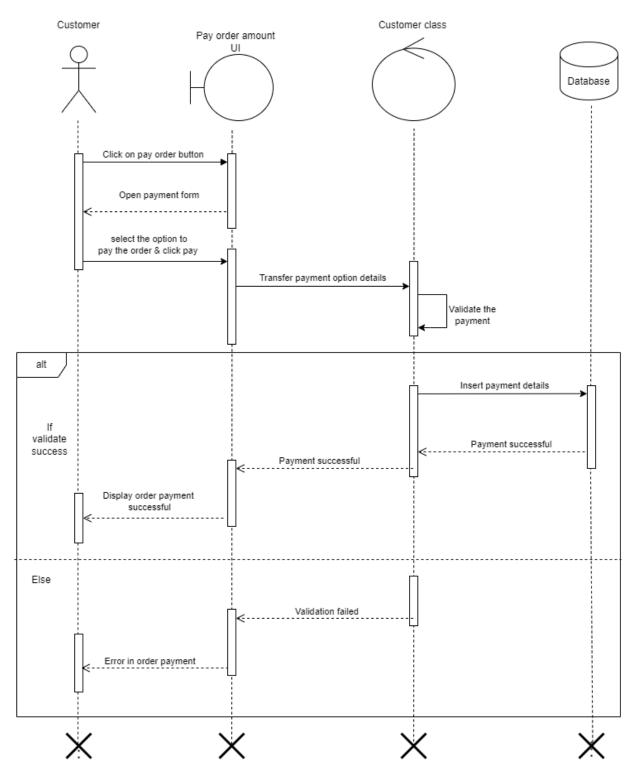


Figure 9: sequence pay order amount

Sequence diagram for Receive customer invoice

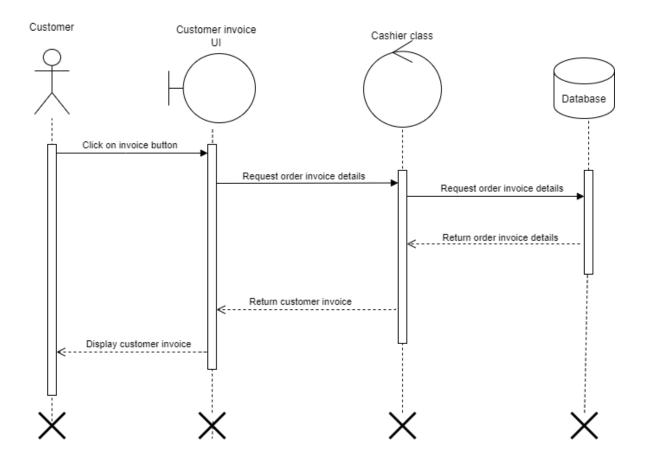


Figure 10: sequence receive customer invoice

Sequence diagram for view customer profile

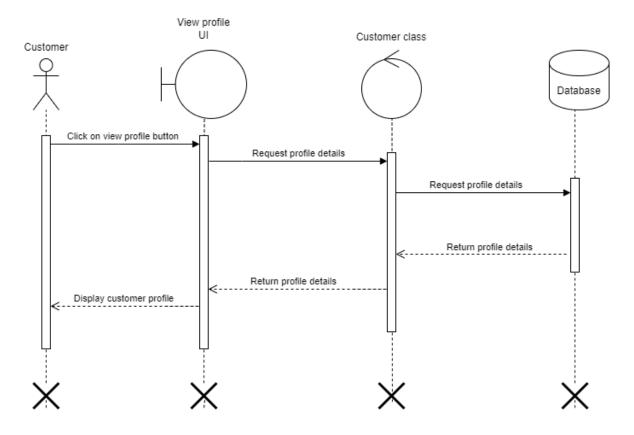


Figure 11: sequence view customer profile

Sequence diagram for update customer profile

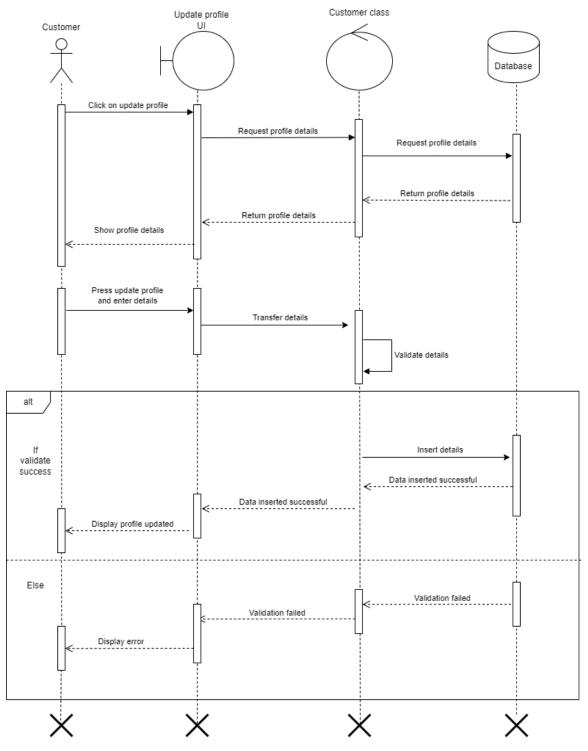


Figure 12: sequence update customer profile

Sequence diagram for delete customer profile

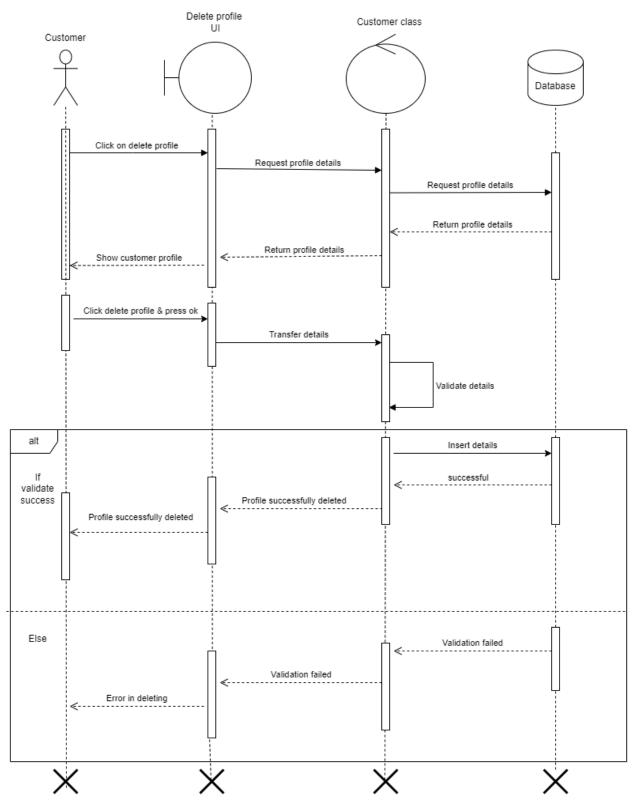


Figure 13: sequence delete customer profile

Sequence diagram for Customize the design

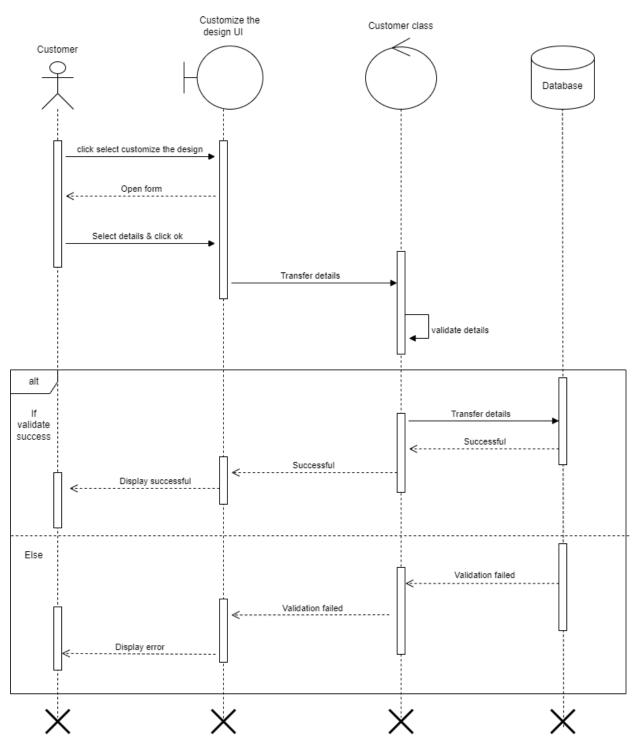


Figure 14: sequence customize the design

Sequence diagram for Select the fabric materials

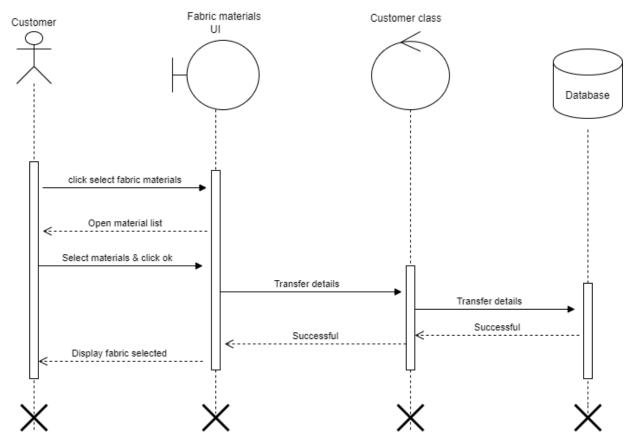


Figure 15: sequence select the fabric materials

Sequence diagram for select the design size

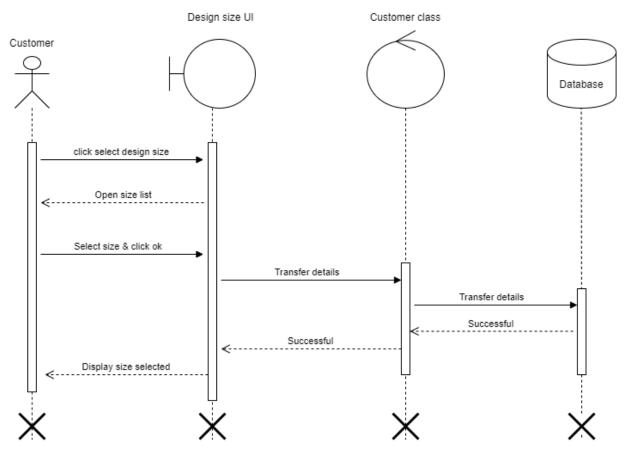


Figure 16: sequence select the design size

Sequence diagram for select design color

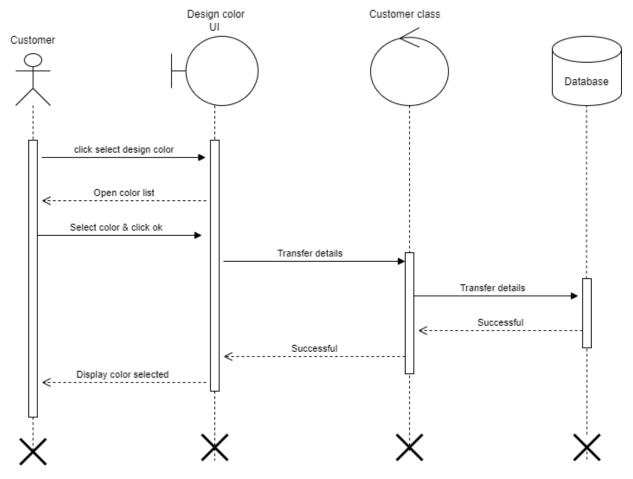


Figure 17: sequence select design color

Sequence diagram for view customer design

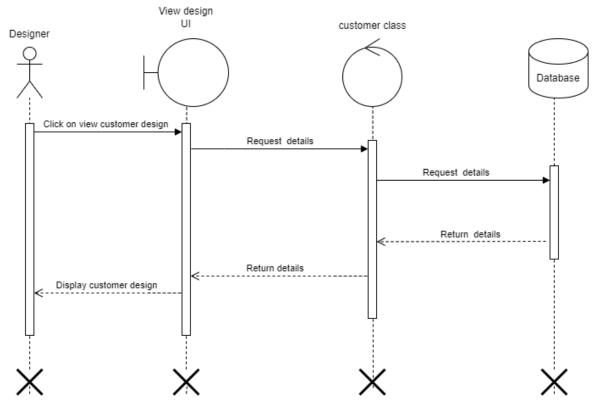


Figure 18: sequence view customer design

Sequence diagram for view designer profile

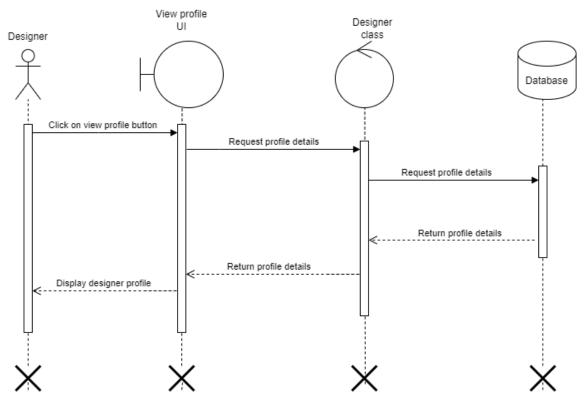


Figure 19: sequence view designer profile

Sequence diagram for update designer profile

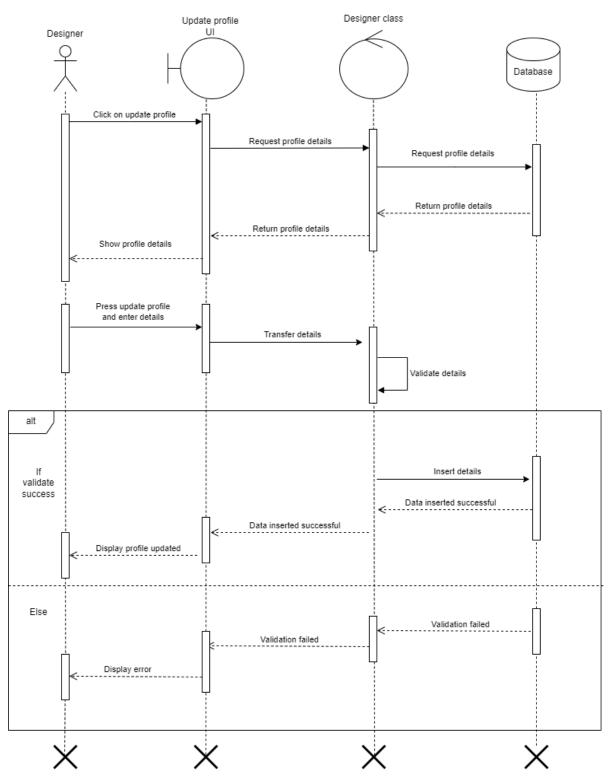


Figure 20: sequence update designer profile

Sequence diagram for delete designer profile

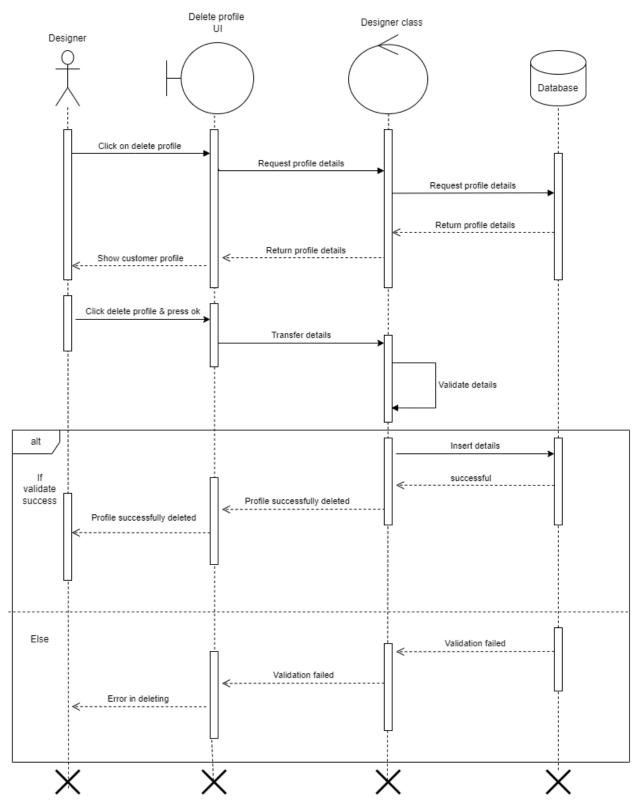


Figure 21: sequence delete designer profile

Sequence diagram for view the assistant profile

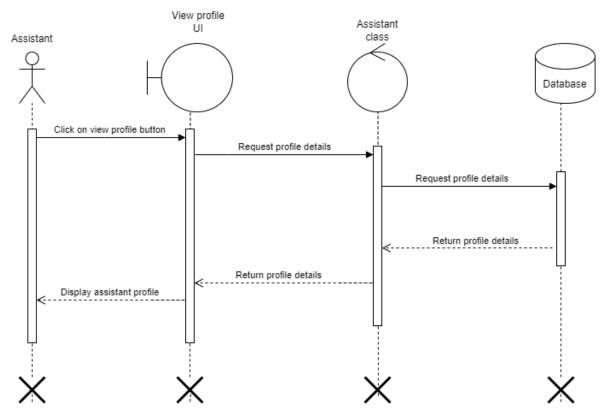


Figure 22: sequence view the assistant profile

Sequence diagram for update assistant profile

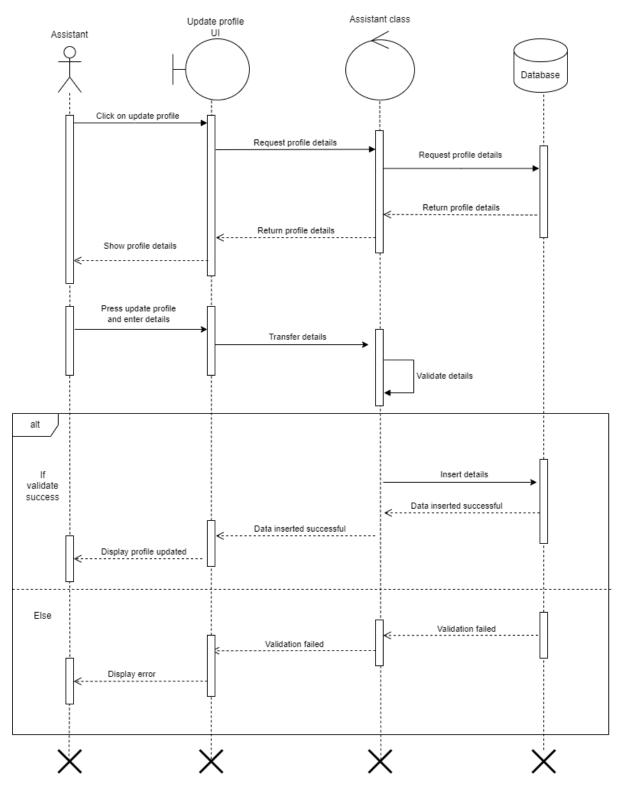


Figure 23: sequence update assistant profile

Sequence diagram for delete assistant profile

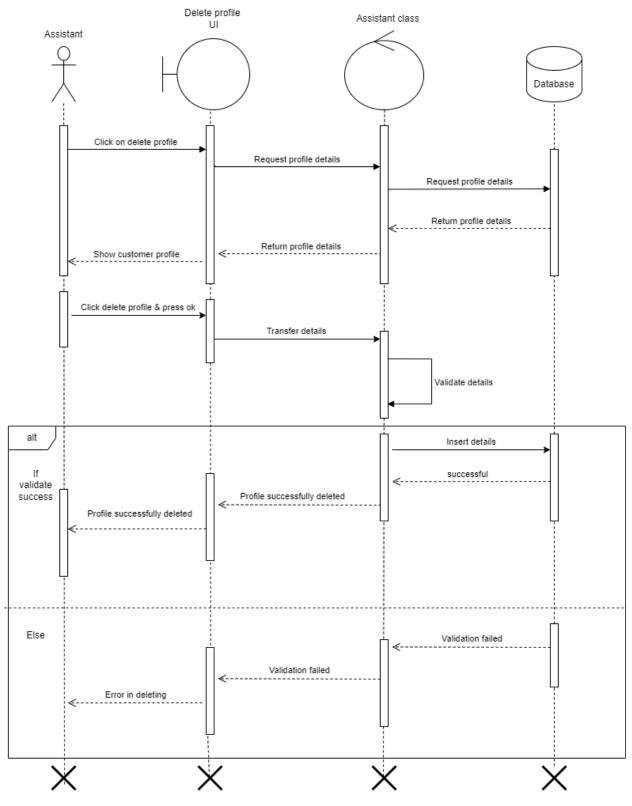


Figure 24: sequence delete assistant profile

Sequence diagram for receive customer order

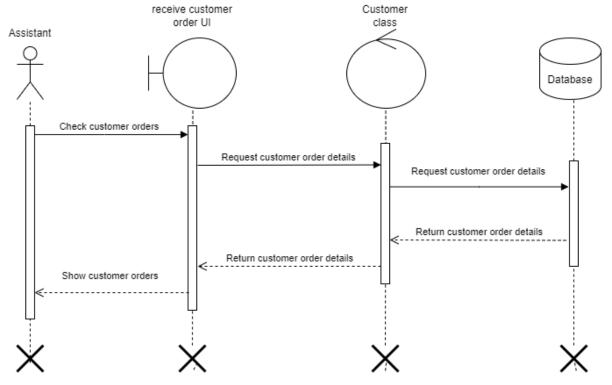


Figure 25: sequence receive customer order

Sequence diagram for generate customer order

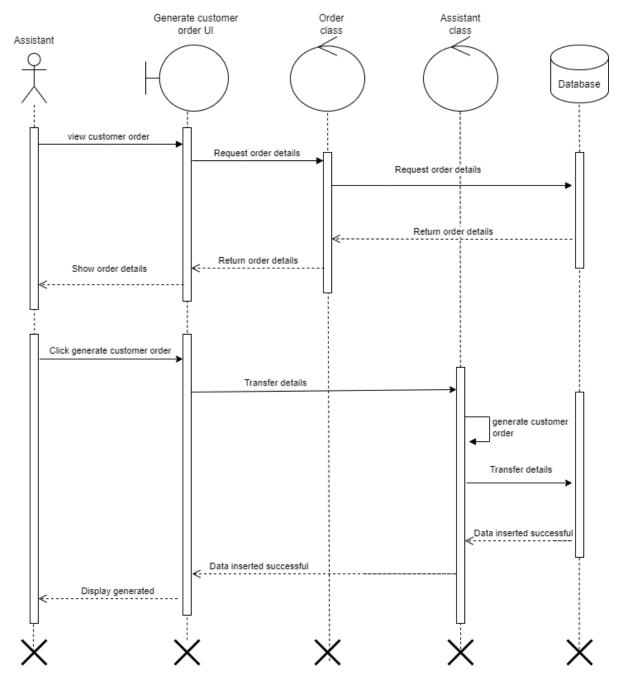


Figure 26: sequence generate customer order

Sequence diagram for add Customer

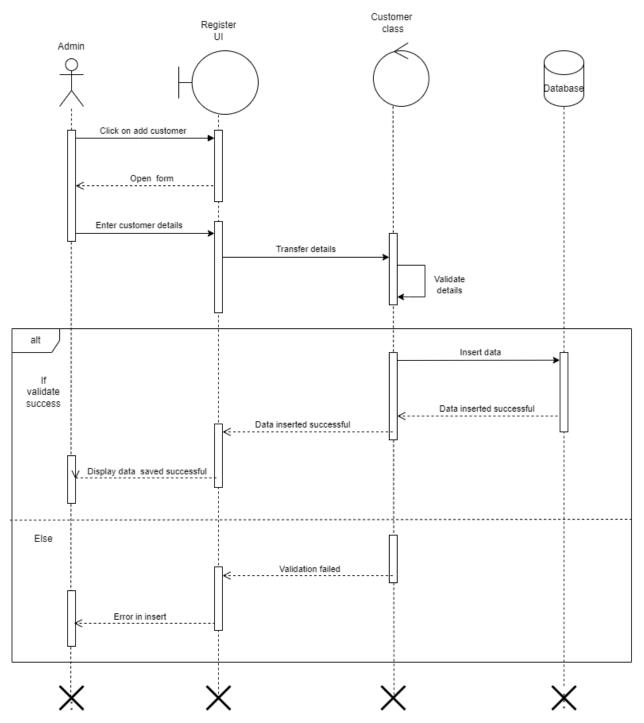


Figure 27: sequence add customer

Sequence diagram for register assistant

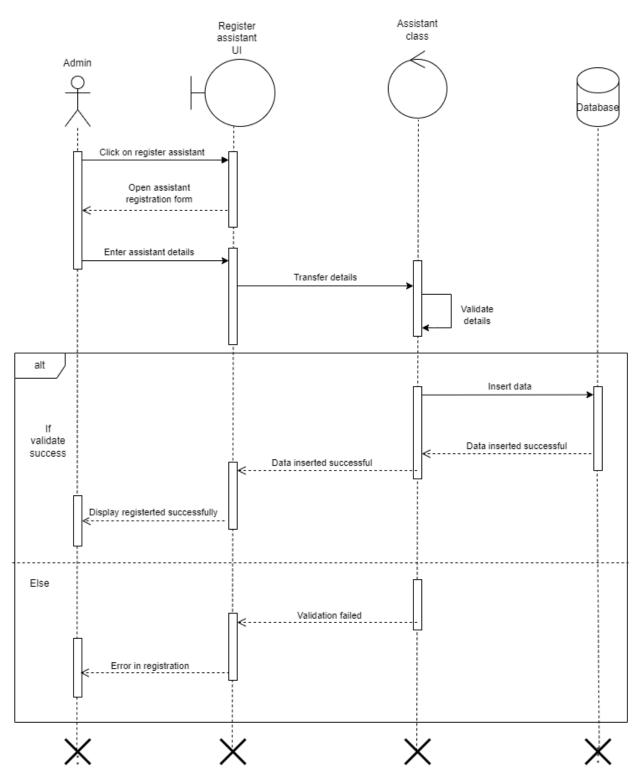


Figure 28: sequence register assistant

Sequence diagram for register designer

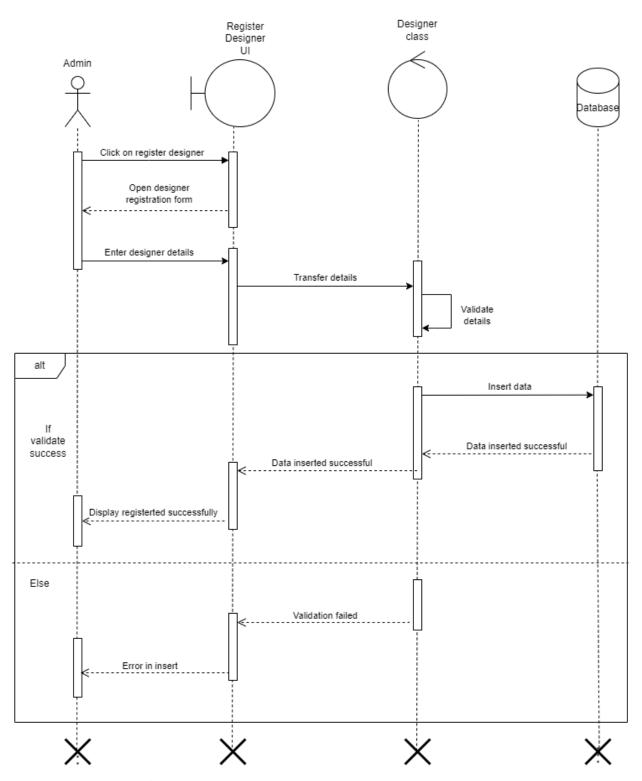


Figure 29: sequence register designer

Sequence diagram for register cashier

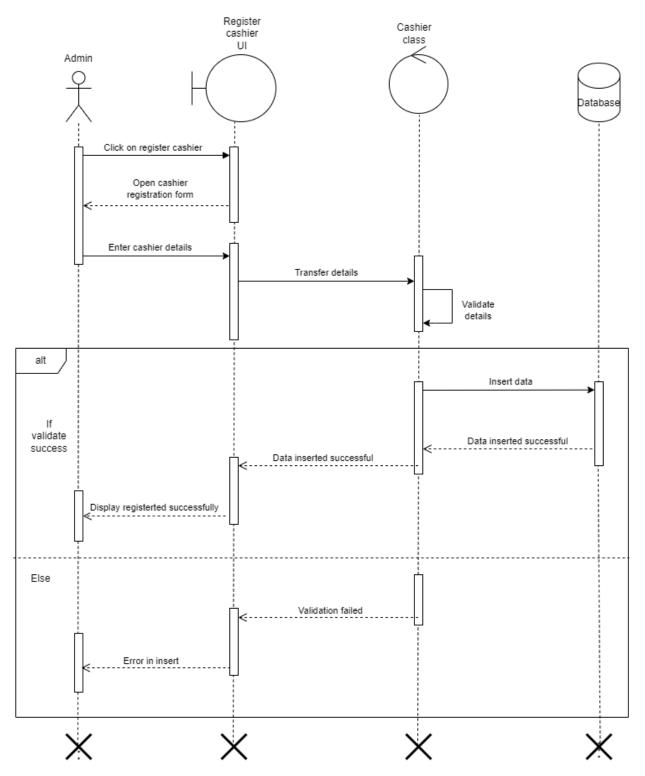


Figure 30: sequence register cashier

Sequence diagram for generate monthly income report

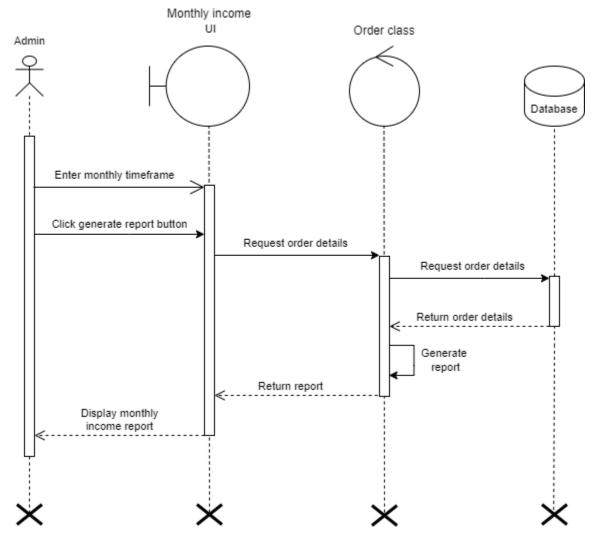


Figure 31: sequence generate monthly income report

Sequence diagram for place purchase order

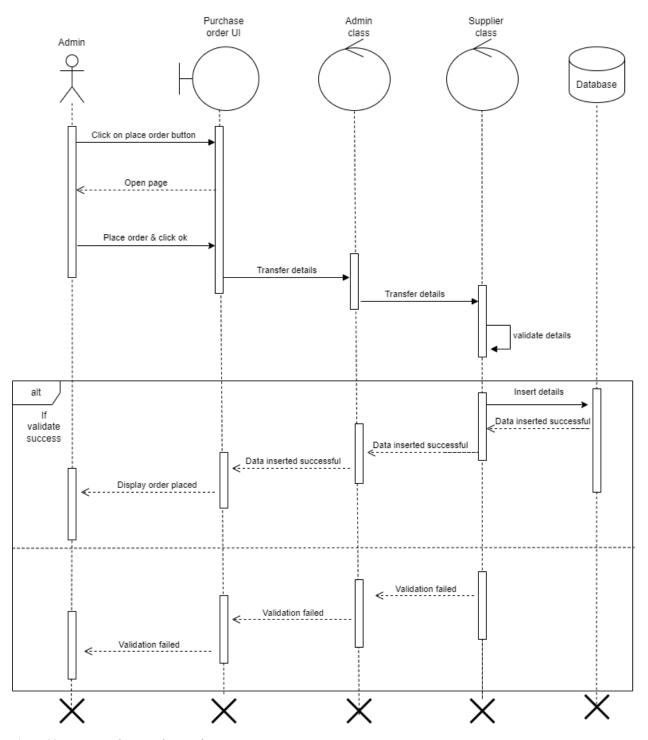


Figure 32: sequence place purchase order

Sequence diagram for check order

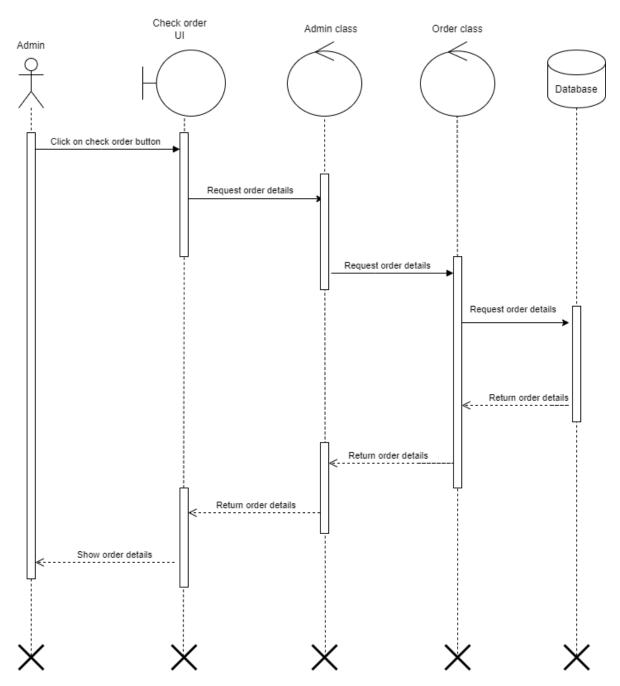


Figure 33: sequence check order

Sequence diagram for register supplier

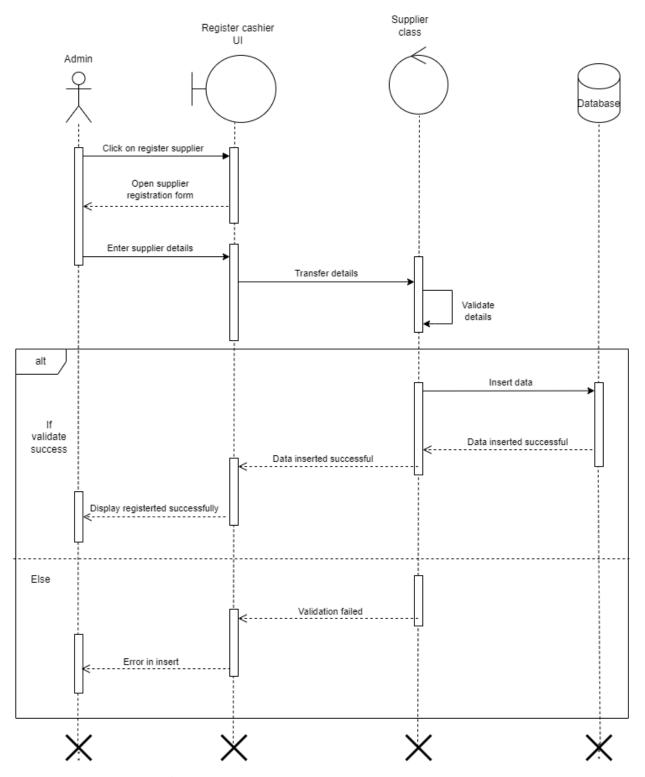


Figure 34: sequence register supplier

Sequence diagram for search supplier details

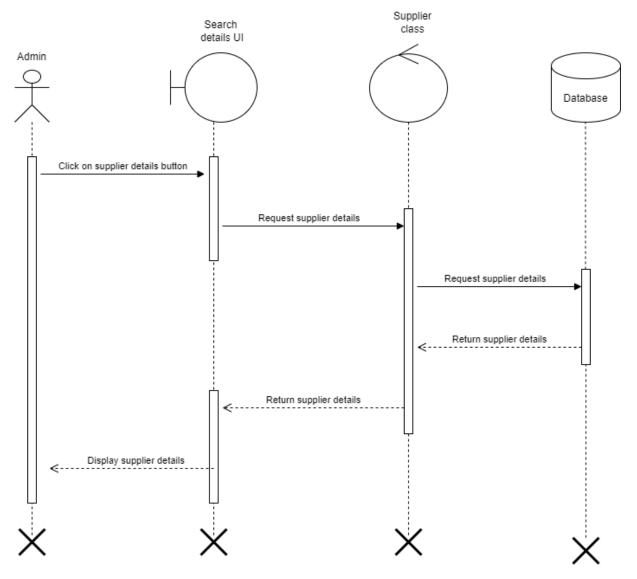


Figure 35: sequence search supplier details

Sequence diagram for pay order materials

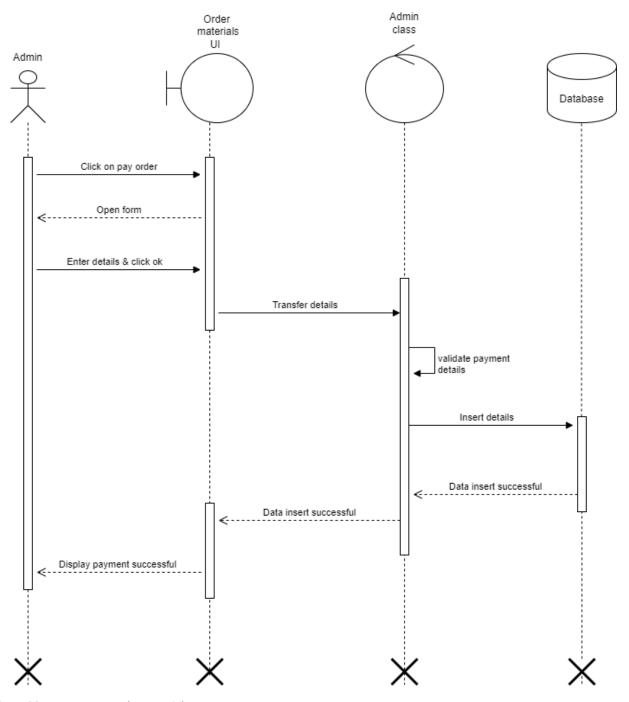


Figure 36: sequence pay order materials

Sequence diagram for generate GRN

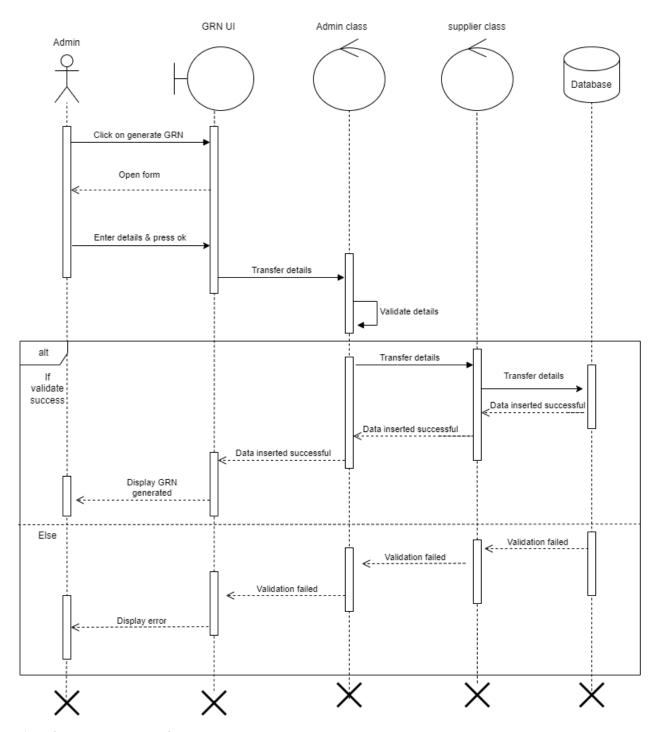


Figure 37: sequence generate GRN

Sequence diagram for send message alert to the customer

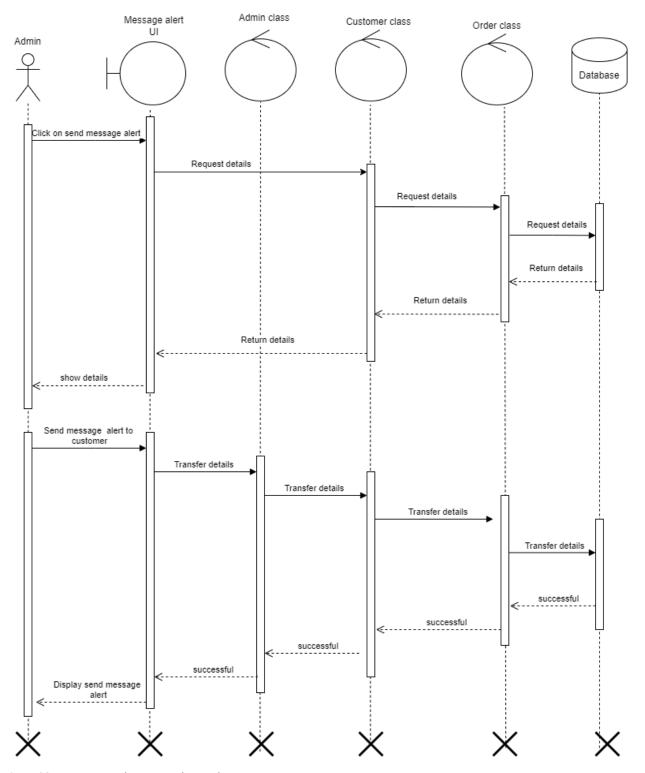


Figure 38: sequence send message alert to the customer

Sequence diagram for generate monthly material stock report

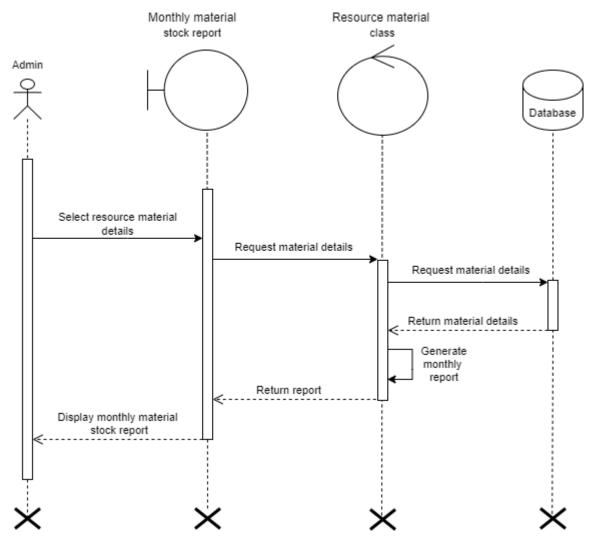


Figure 39: sequence generate monthly material stock report

Sequence diagram for generate monthly sales report

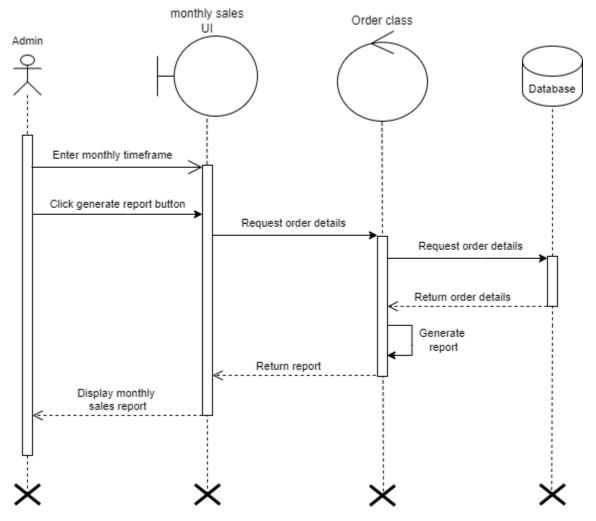


Figure 40: sequence generate monthly sales report

Sequence diagram for generate monthly purchase order report

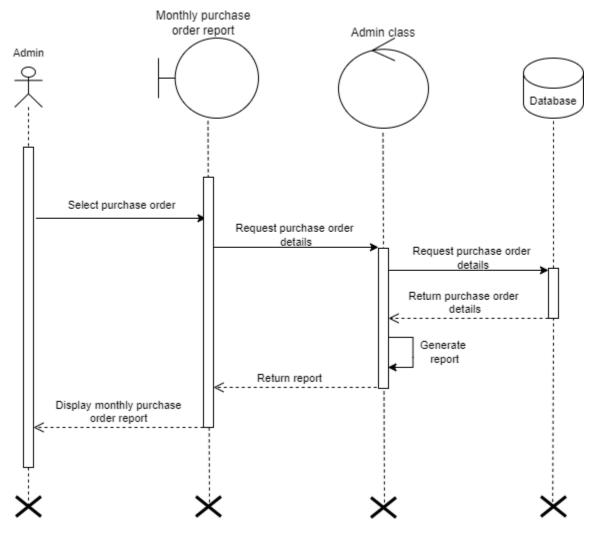


Figure 41: sequence generate monthly purchase order report

Sequence diagram for add items

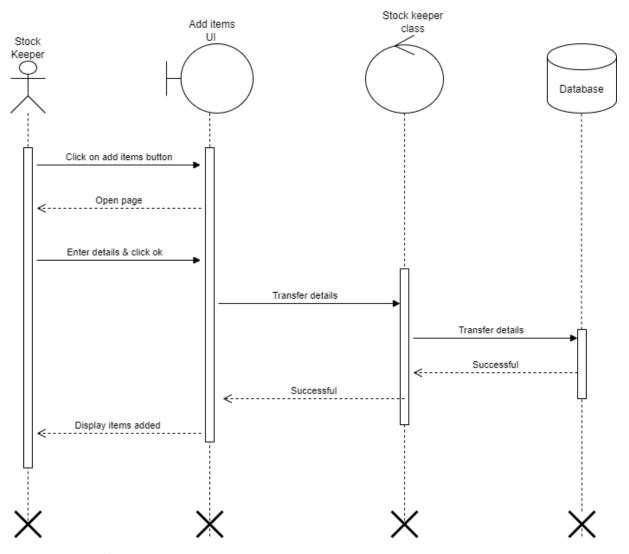


Figure 42: sequence add items

Sequence diagram for record material list

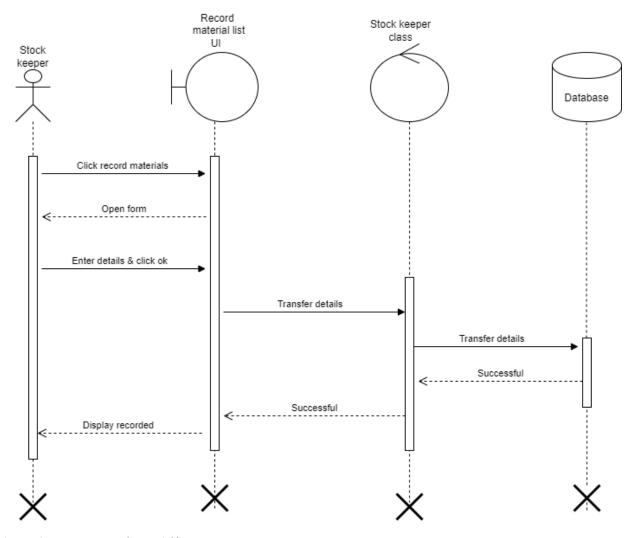


Figure 43: sequence record material list

Sequence diagram for generate weekly stock status report

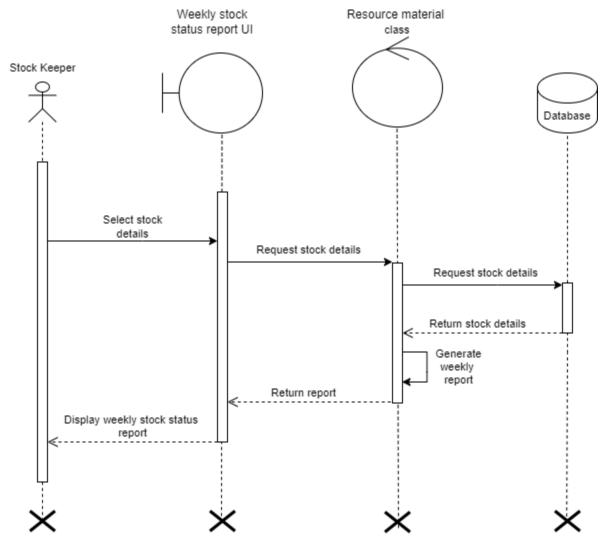


Figure 44: sequence generate weekly stock status report

Sequence diagram for record supplier invoice details

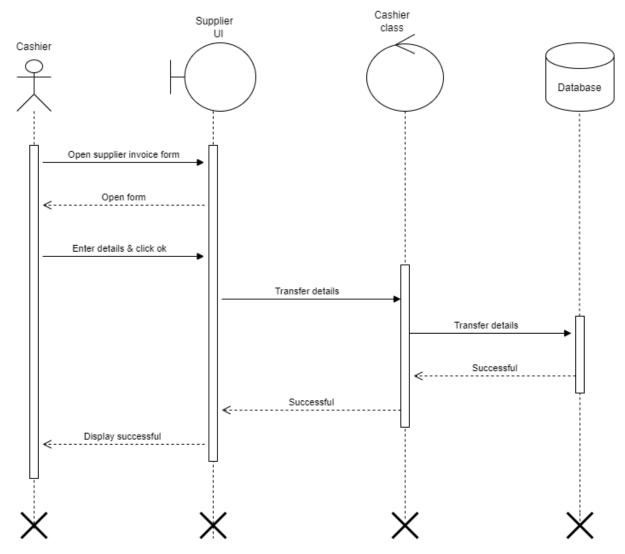


Figure 45: sequence record supplier invoice details

Sequence diagram for record purchase payment details

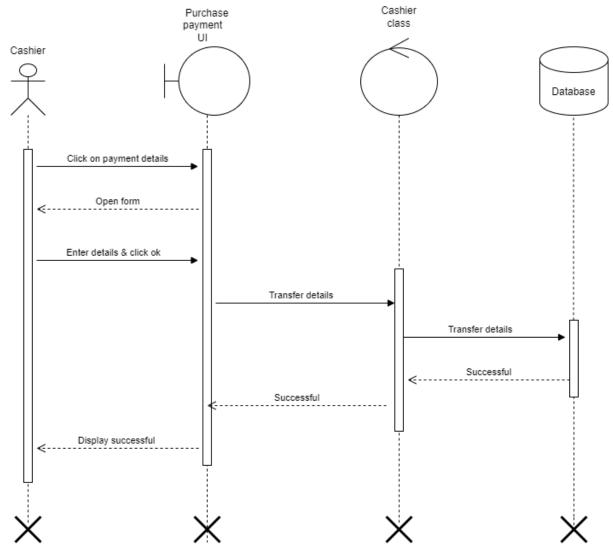


Figure 46: sequence record purchase payment details

Sequence diagram for record payment

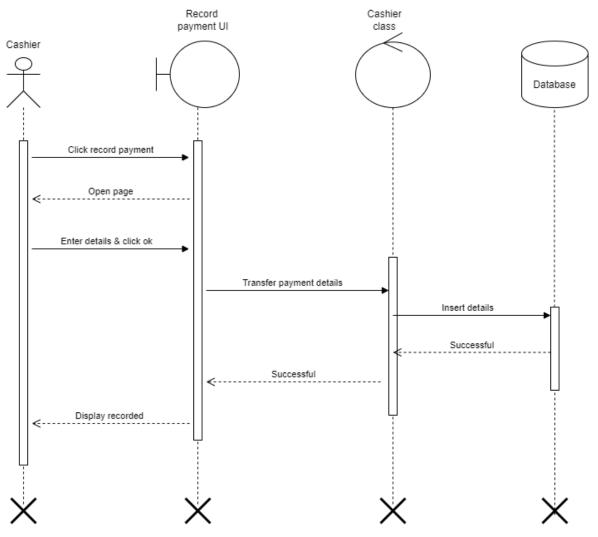


Figure 47: sequence record payment

3.3 ER Diagram of the Proposed System.

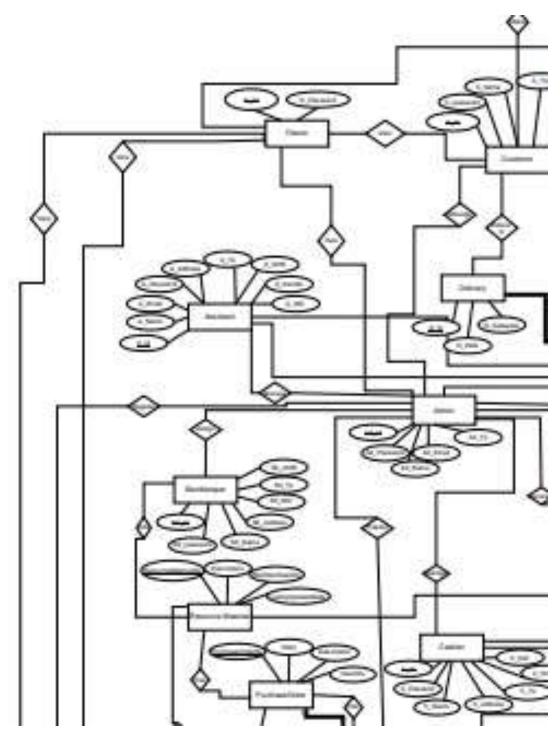


Figure 48: Er diagram

3.4 Chapter Summery

The analysis performed by our team is contained in this chapter. The use case diagrams of both the existing and proposed system for all actors, the class diagram, the sequence diagrams, and the ER diagram for the proposed system are all shown in the before mentioned chapter. Each user/actor in the proposed software system and the current manual system is fully described in the use case diagram separately. The classes and the functions of each class are described in the class diagram. The interaction between users, actors, and the system software is described in the sequence diagrams. The database design is shown in the ER diagram. When building the database, it is crucial. All of the aforementioned diagrams were created by members of our team under the supervision of our supervisor. You can understand the scope of our project using the above-shown diagrams.

Chapter 4: Solution Design

4.1 Introduction

Software design is a process that converts user requirements into a proper form, aiding the programmer in the creation and execution of software. The software design phase of software development comes after the analysis. This chapter explains how our Management System works and how user-friendly it is. This chapter also includes designs for database tables, interfaces and reports.

4.2 Interface Design

All the Graphical User Interfaces (GUI) are developed using C# on top of .NET framework version 4 and all reports are designed using Figma, a software application designed for creating professional-grade user interfaces. The client will need to have the .NET framework 4.0 or higher to run the system. To design forms, we have used bunifu, and NuGet package to provide a better user-friendly interface to the users.

Some of the user interfaces of the system are shown below.

Interface No: 01 Loading screen

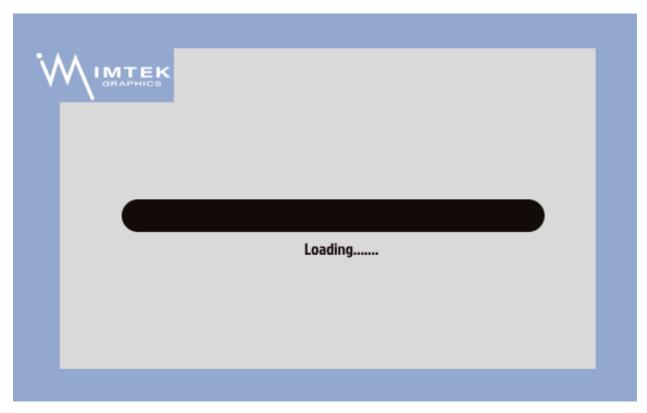


Figure 49Loading page

Interface No: 02 Login Options

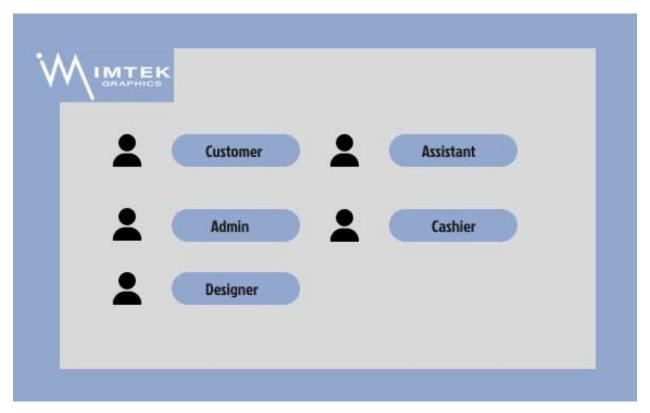


Figure 50: login options

Login Page



Figure 51: login page

Interface No: 04 Signup Page



Figure 52: signup page

Interface No: 05 Forget Password

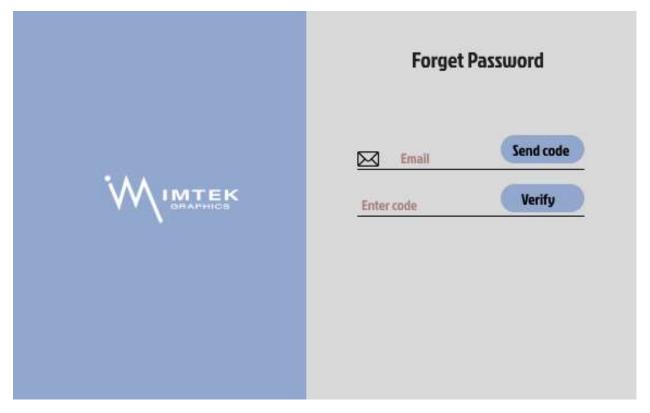


Figure 53: forget password

Reset Password Screen

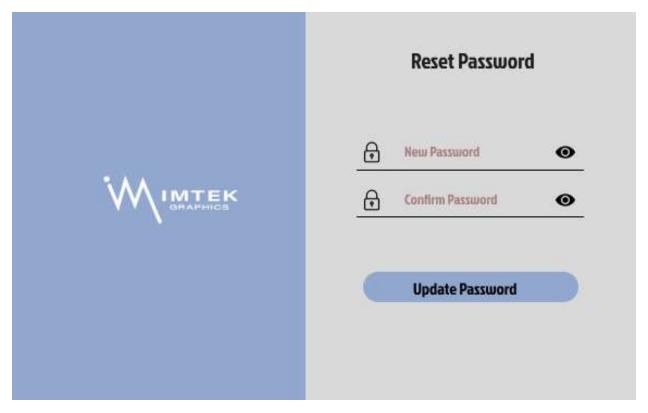


Figure 54: reset password

Interface No: 06
Admin Dashboard



Figure 55: admin dashboard

Cashier Dashboard



Figure 56: cashier dashboard

Assistant Dashboard



Figure 57: Assistant dashboard

Designer Dashboard



Figure 58: designer dashboard

Stock keeper Dashboard



Figure 59: stock keeper dashboard

Add Employee Screen

WIMT!	EK les						
	Employee ID						
	First Name						
	Last Name						
	Address						
	NIC						
	Date of Birth					⊞	
	Gender	0	Male	0	Female		
	Phone						
	Phone (optional)						
	Designation						
		Sa	ave			Clear	

Figure 60: add employee screen

Add Customer screen

*WIMTEK			
Customer ID			
First Name			
Last Name			
Address			
NIC			
Date of Birth			
Gender	○ Male	○ Female	
Phone			
Phone (optional)			
S	ave	Clear	

Figure 61: add customer

Interface No: 13 Add Supplier Screen



Figure 62: add supplier

Add Purchase order screen

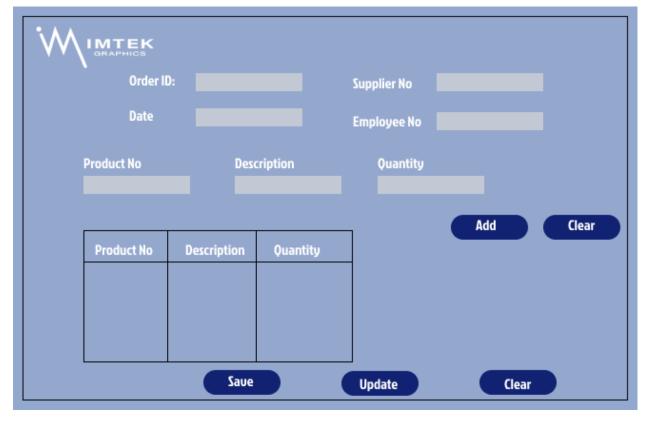


Figure 63: add purchase order

Interface No: 15 Add product order screen

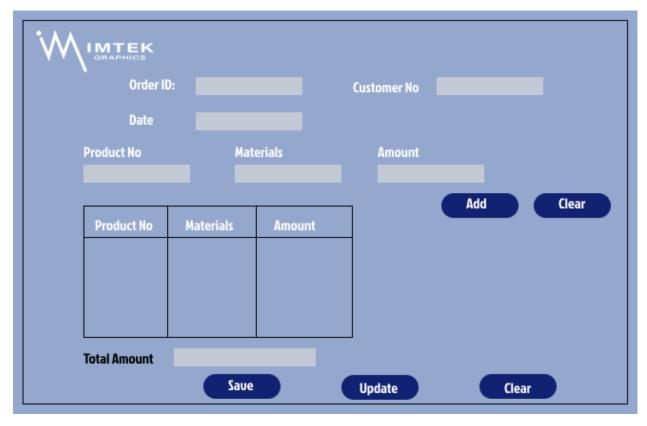


Figure 64: add product order screen

Search Employee screen

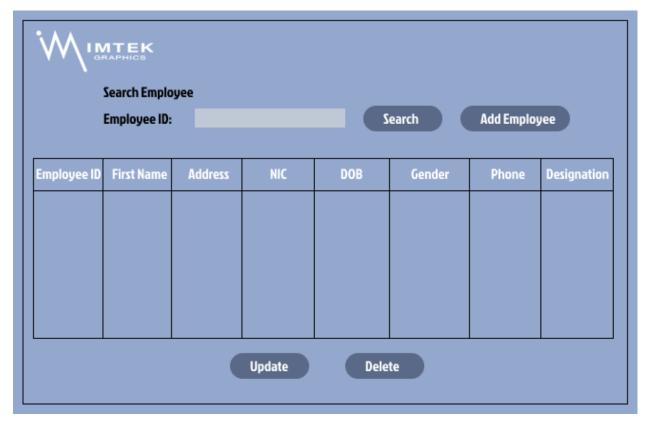


Figure 65: Search Employee

Search Customer Screen

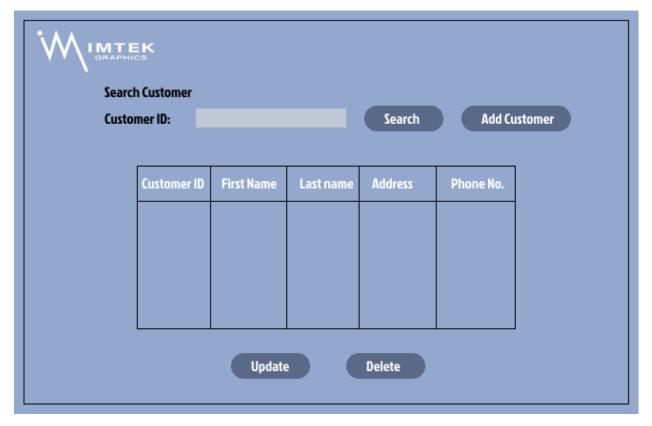


Figure 66: Search Customer Screen

Interface No: 18 Supplier Screen

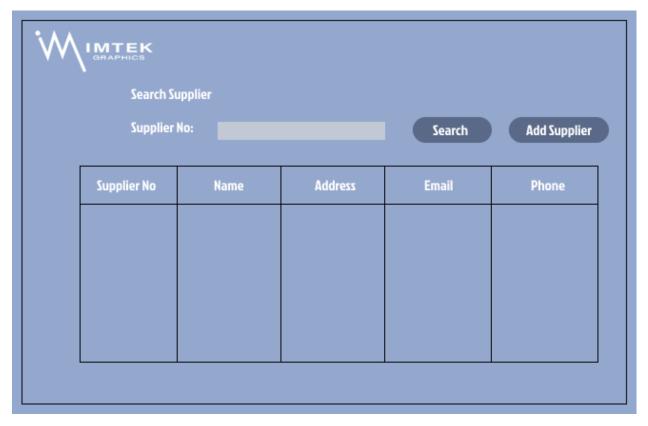


Figure 67:Supplier Screen

Monthly Income Report Dashboard



Figure 68:Monthly Income Report Dashboard

Interface No: 20

Search Supplier Order Screen

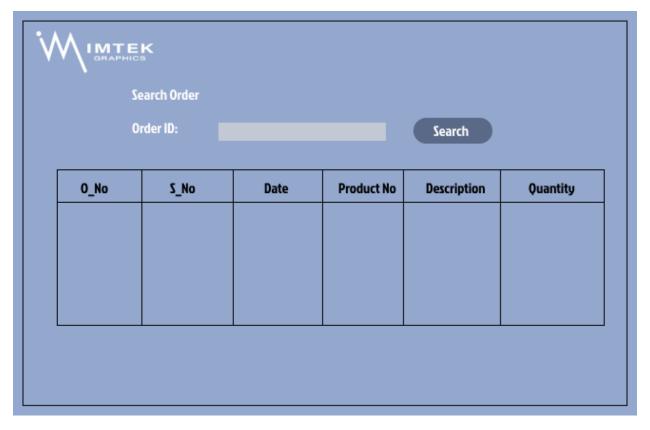


Figure 69:Search Supplier Order Screen

Interface No: 21 Add Supplier order Screen

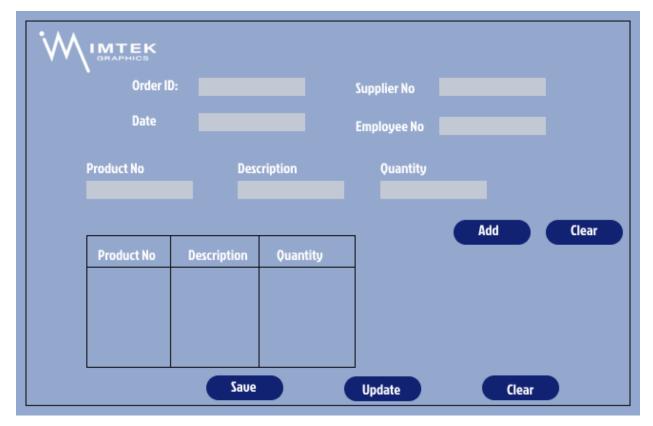


Figure 70:Add Supplier order Screen

Customer order screen

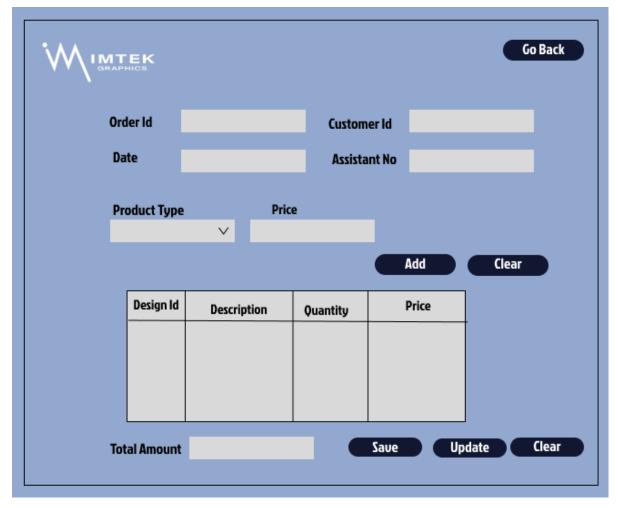


Figure 71:Customer order screen

Interface No: 23
Search customer order screen

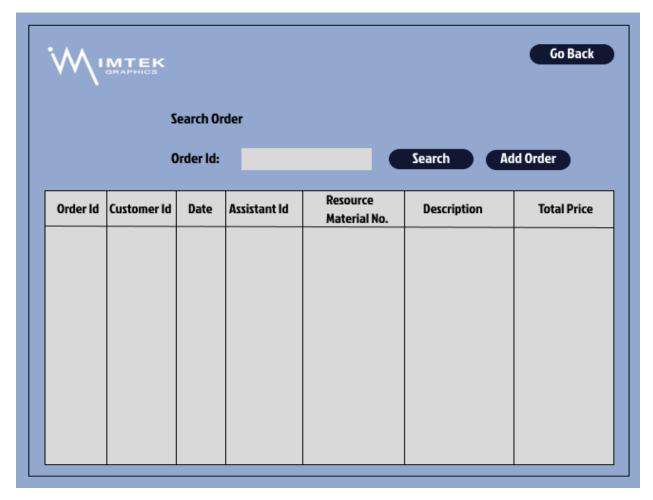


Figure 72:Search customer order screen

Interface No: 24
Search customer invoice screen

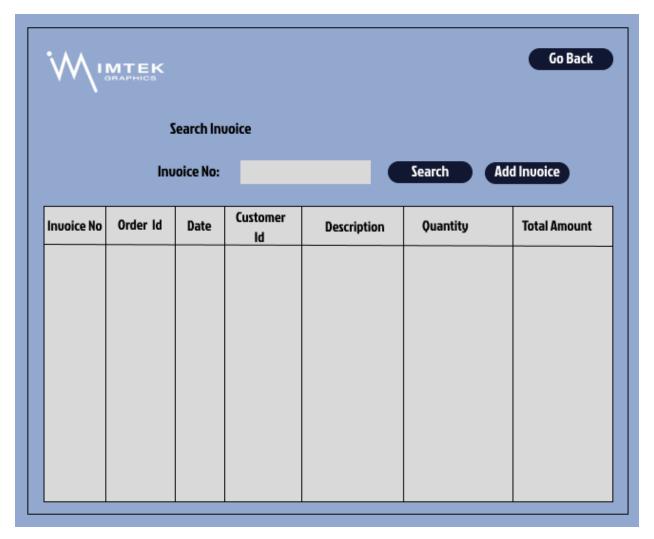


Figure 73:Search customer invoice screen

Interface No: 25

Monthly purchase order report screen

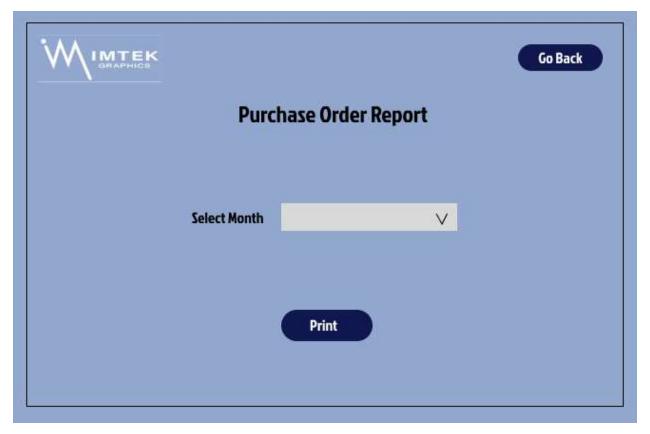


Figure 74:Monthly purchase order report screen

Interface No: 26
Invoice Screen



Figure 75:Invoice Screen

Interface No: 27
Search good receive notes screen



Figure 76:Search good receive notes screen

Good receive notes screen

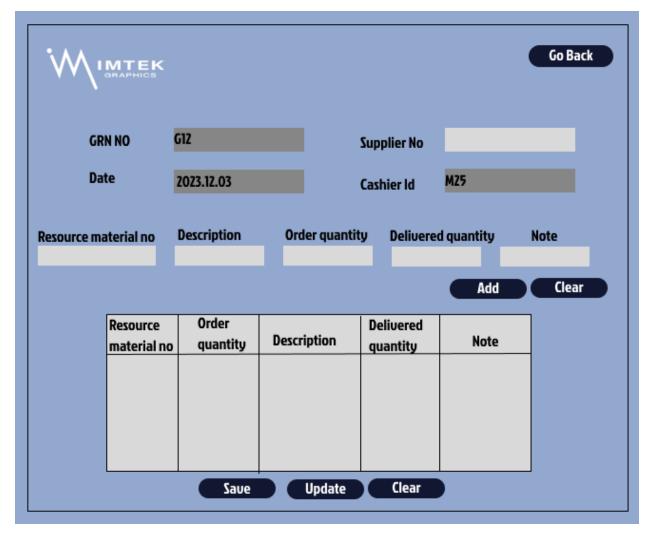


Figure 77:Good receive notes screen

Interface No: 29 Payment screen



Figure 78:Payment screen

Search resource material screen

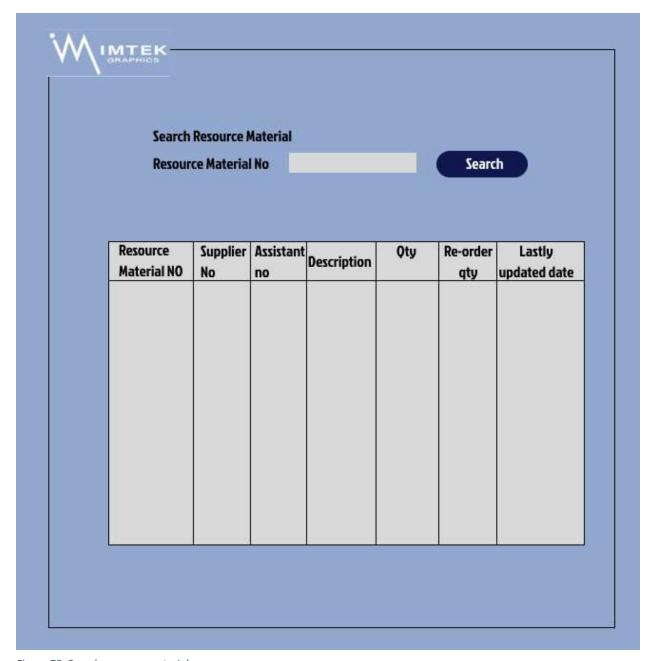


Figure 79: Search resource material screen

Resource material screen



Figure 80:Resource material screen

Report Dashboard



Figure 81:Report Dashboard

weekly stock status Report

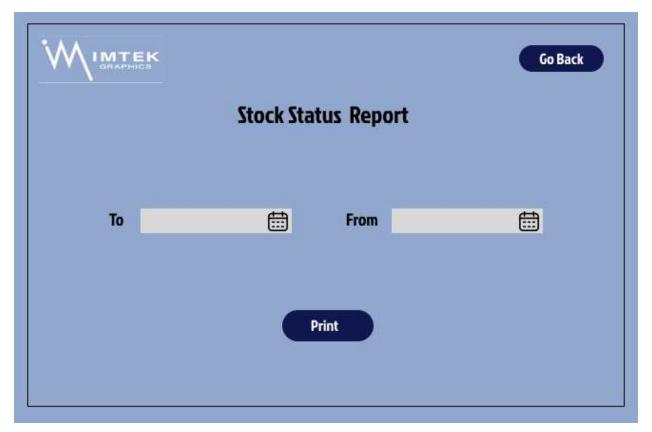


Figure 82: Monthly stock status Report

Interface No: 34

Monthly sales report



Figure 83: Monthly sales report

Interface No: 35 Customize Design Screen

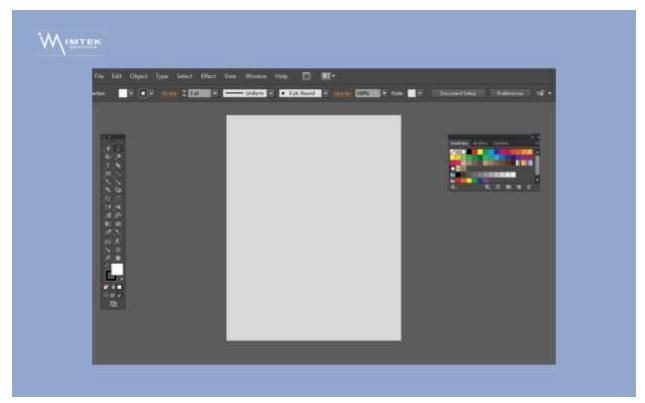


Figure 84:Customize Design Screen

Customer order invoice screen

Order ID Date		Customer ID Assistant ID	
Product No	Description	Product type	Amount
Product No	Description	Product type	Amount
Payment ID Total Amount			
Advanced Net Amount			
		Updat	te Cle

Figure 85: Customer order invoice screen

Interface No: 37 Message Box 1



Figure 86: message box 1

Interface No: 38

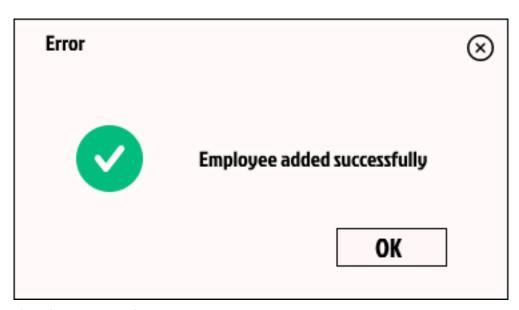


Figure 87: Message Box 2

Message Box 3



Figure 88:Message Box 3

Interface No: 40

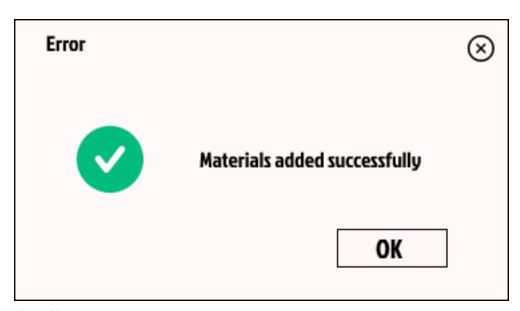


Figure 89:Message Box 4

Message Box 5

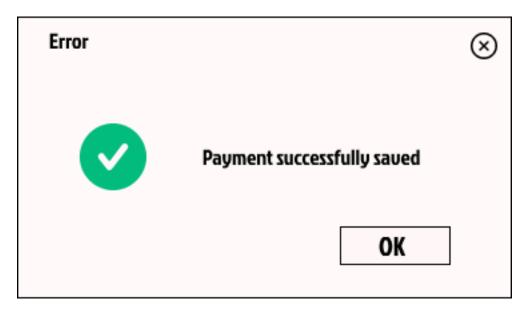


Figure 90:Message Box 5

Interface No: 42

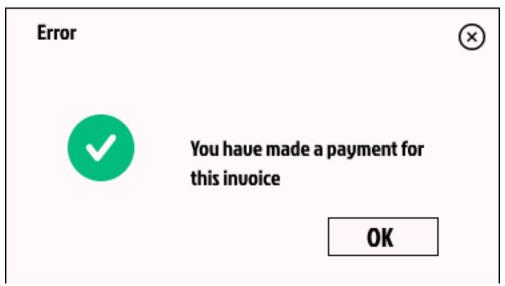


Figure 91:Message Box 6

Message Box 7



Figure 92:Message Box 7

Interface No: 44

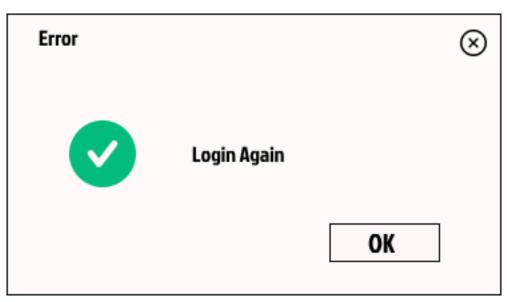


Figure 93:Message Box 8

Message Box 9

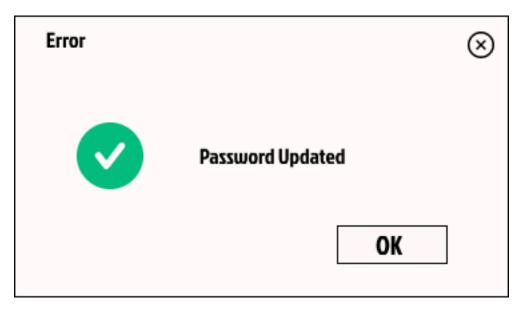


Figure 94:Message Box 9

Interface No: 46

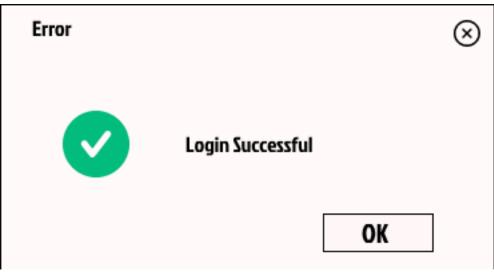


Figure 95:Message Box 10

Message Box 11

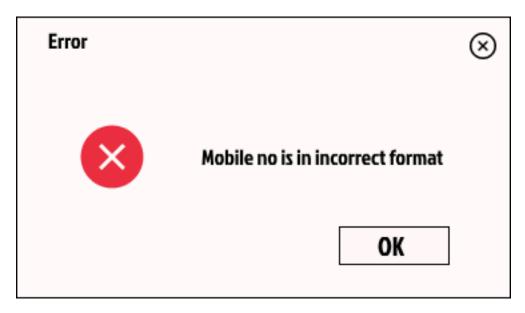


Figure 96:Message Box 11

Interface No: 48

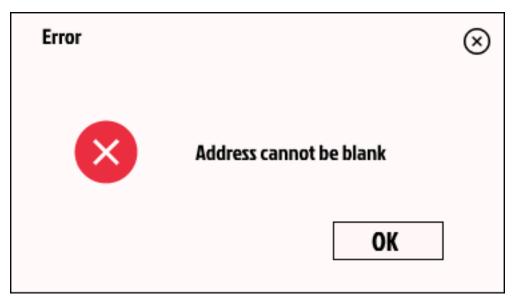


Figure 97:Message Box 12

Message Box 13

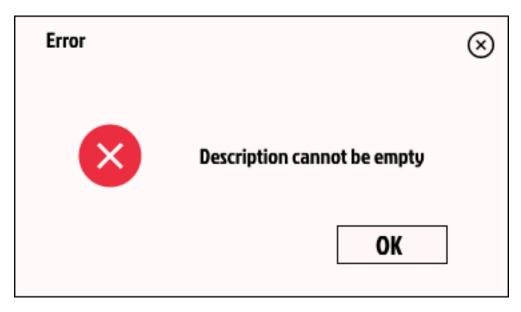


Figure 98:Message Box 13

Interface No: 50

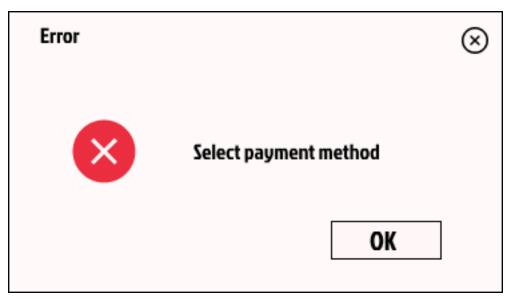


Figure 99:Message Box 14

Interface No: 51
Message Box 15



Figure 100:Message Box 15

Interface No: 52 Message Box 16

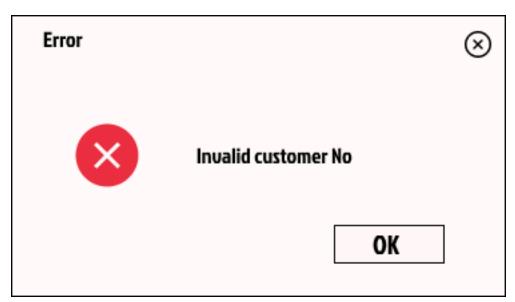


Figure 101:Message Box 16

Interface No: 53 Message Box 17

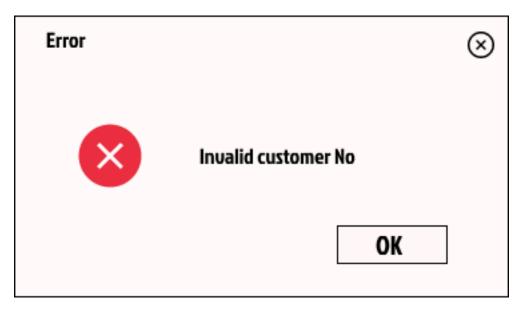


Figure 102:Message Box 17

Interface No: 54
Message Box 18

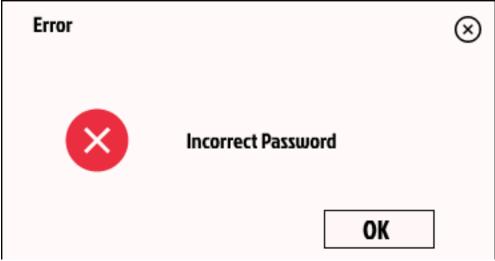


Figure 103:Message Box 18

Message Box 19

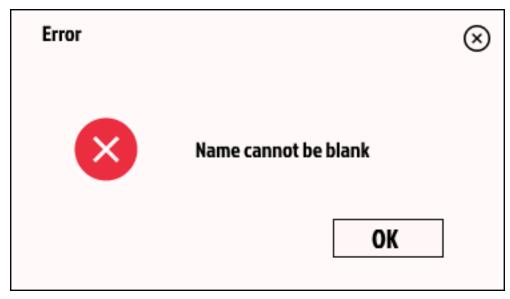


Figure 104:Message Box 19

Interface No: 56

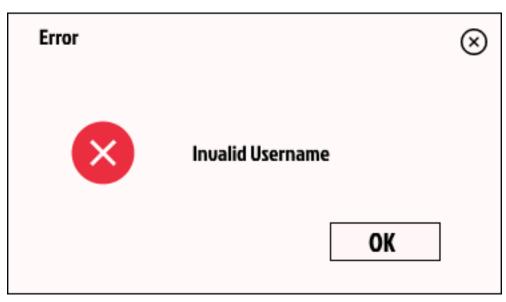


Figure 105:Message Box 20

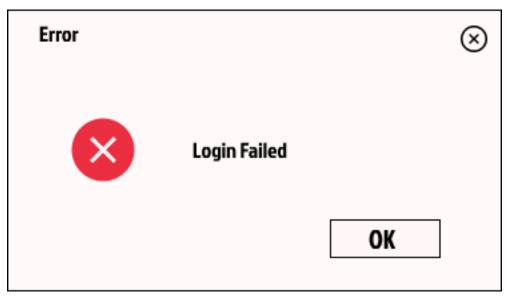


Figure 106:Message Box 21

4.3 Database Design

Table 01: Customer Table

Primary Key – Customer_Id

Field Type	Date Type	Field Size	Description
Cus_Id	Text	5	Customer Id
Cus_Name	Text	20	Customer Name
Cus_Password	Text	20	Customer Password
Cus_Tp	Number	10	Customer Telephone Number
Cus_DOB	Date	10	Customer Date of Birth
Cus_Gender	Text	5	Customer Gender
Cus_Address	Text	20	Customer Address
Cus_NIC	Number	10	Customer NIC
Record Size		100	

Table 02: Designer Table

Primary Key – Designer_Id

Field Type	Date Type	Field Size	Description
Designer_Id	Text	5	Designer Id
Designer_Name	Text	20	Designer Name
Designer_Password	Text	20	Designer Password
Designer_Tp	Number	10	Designer Telephone Number
Designer_DOB	Date	10	Designer Date of Birth
Designer_Gender	Text	5	Designer Gender
Designer_Address	Text	20	Designer Address
Designer_NIC	Number	10	Designer NIC
Record Size		100	

Table 03: Design Table

Primary Key – Design_Id

Foreign Key - Customer_Id,Designer_Id

Field Type	Date Type	Field Size	Description
Des_Id	Text	5	Design Id
Des_type	Text	10	Design Type
Des_date	Date	10	Design Date
Cus_Id	Text	5	Customer Id
Designer_Id	Text	5	Designer Id
Record Size	•	35	

Table 04: Customer Order Table

Primary Key – Order_Id

 $For eign\ Key-Assistant_Id, Customer_Id, Admin_Id, Design_Id$

Field Type	Date Type	Field Size	Description
Order_Id	Text	5	Order Id
Order_Date	Date	10	Order date
Total_price	Number	20	Total price
Description	Text	10	Description
Admin_Id	Text	5	Admin Id
Cus_Id	Text	5	Customer Id
Ass_Id	Text	5	Assistant Id
Des_Id	Text	5	Design Id
Record Size	_	55	

Table 05: Design Order Details Table

Primary Key – Design_Id,Order_Id

Foreign Key - Design_Id,Order_Id

Field Type	Date Type	Field Size	Description
Design_Id	Text	5	Design Id
Order_Id	Text	5	Order Id
Qty	Number	5	Quantity
Record Size		15	

Table 06: Delivery Table

Primary Key – Delivery_Id

Foreign Key – Customer_Id,Admin_Id

Field Type	Date Type	Field Size	Description
Dev_Id	Text	5	Delivery Id
Dev_Date	Text	10	Delivery date
Dev_Gatepass	Text	20	Delivery gatepass
Cus_Id	Text	5	Customer Id
Admin_Id	Text	5	Admin Id
Record Size	_	45	

Table 07: Assistant Table

Primary Key – Assistant_Id

Field Type	Date Type	Field Size	Description
Ass_Id	Text	5	Assistant Id
Ass_Name	Text	20	Assistant Name
Ass_Email	Text	20	Assistant email
Ass_Password	Text	20	Assistant Password
Ass_Tp	Number	10	Assistant Telephone Number
Ass_DOB	Date	10	Assistant Date of Birth
Ass_Gender	Text	5	Assistant Gender
Ass_Address	Text	20	Assistant Address
Ass_NIC	Number	10	Assistant NIC
Record Size	·	120	

Table 08: Admin Table

Primary Key – Admin_Id

Field Type	Date Type	Field Size	Description
Admin_Id	Text	5	Admin Id
Admin_Name	Text	20	Admin Name
Admin_Password	Text	10	Admin Password
Admin_Tp	Number	10	Admin Telephone Number
Admin_Email	Text	20	Admin email
Record Size		65	

Table 09: Resource Material Table

Primary Key – ResourceMaterial_No

Foreign Key – Admin_Id,Supplier_Id

Field Type	Date Type	Field Size	Description
ResourceMaterial_No	Text	5	Resource material No
Reorder_Qty	Text	10	Reorder quantity
Lastly_Update_Date	Date	10	Lastly update date
Admin_Id	Text	5	Admin Id
Supplier_Id	Text	5	Supplier Id
Record Size	•	35	

Table 10: Purchase Order Table

Primary Key – PurchaseOrder_No

Foreign Key – Admin_Id,Supplier_Id

Field Type	Date Type	Field Size	Description
PurchaseOrder_No	Text	5	Purchase order No
Date	Date	10	Date
Admin_Id	Text	5	Admin Id
Supplier_Id	Text	5	Supplier Id
Record Size		25	

Table 11: Resource Purchase order details Table

Primary Key-ResourcMaterial_No,PurchaseOrder_No

Foreign Key - Resource_Material_No,Purchase_Order_No

Field Type	Date Type	Field Size	Description
Resource_Material_No	Text	5	Resource material No
PurchaseOrder_No	Text	5	Purchase No
Description	Text	10	Description
Qty	Number	10	Quantity
Record Size		30	

Table 12: Cashier Table

Primary Key - Cashier_Id

Field Type	Date Type	Field Size	Description
Cashier_Id	Text	5	Cashier Id
Cashier_Name	Text	20	Cashier Name
Cashier_Password	Text	20	Cashier Password
Cashier_Tp	Number	10	Cashier Telephone Number
Cashier_Email	Text	20	Cashier email
Cashier_Address	Text	20	Cashier Address
Cus_NIC	Number	10	Cashier NIC
Record Size		105	

Table 13: Supplier Invoice Table

Primary Key – SupInv_No

Foreign Key – Cashier_Id,Supplier_Id

Field Type	Date Type	Field Size	Description
SupInv_No	Text	5	Supplier invoice No
SupInv_Date	Date	10	Supplier invoice date
Description	Text	20	Description
Total_Amount	Number	10	Total amount
Cashier_Id	Text	5	Cashier Id
Supplier_Id	Text	5	Supplier Id
Record Size		65	

Table 14: Final Product Table

Primary Key - Pro_No

Foreign $Key - Admin_Id$, $Order_Id$

Field Type	Date Type	Field Size	Description
Pro_Id	Text	5	Final Product Id
Pro_Description	Text	20	Final product description
Qty	Text	10	Quantity
Pro_Type	Text	20	Final product type
Admin_Id	Text	5	Admin Id
Order_Id	Text	5	Order Id
Record Size		55	

Table 15: Customer Invoice Table

Primary Key – Invoice_No

Foreign Key -Admin_Id,Order_Id

Field Type	Date Type	Field Size	Description
Invoice_No	Text	5	Invoice Id
Invoice_Date	Date	10	Invoice date
Invoice_Amount	Number	20	Invoice amount
Quantity	Text	10	Quantity
Description	Text	20	Description
Admin_Id	Text	5	Admin Id
Order_Id	Text	5	Order Id
Record Size		45	

Table 16: Customer Payment Table

 $Primary\ Key-Payment_Id$

Foreign Key -Admin_Id,Order_Id,Customer_Id

Field Type	Date Type	Field Size	Description
Payment_Id	Text	5	Payment Id
Payment_Method	Text	10	Payment method
Payment_Date	Date	5	Payment date
Total_Amount	Number	10	Total amount
Advanced_Amount	Number	10	Advanced amount
Net_Amount	Number	10	Net amount
Admin_Id	Text	5	Admin Id
Order_Id	Text	5	Order Id
Customer_Id	Text	5	Customer Id
Record Size		65	

Table 17: GRN Table

Primary Key – GRN_No

Field Type	Date Type	Field Size	Description
GRN_No	Text	5	GRN No
Date	Date	10	Date
Order_Qty	Text	10	Order quantity
Deliver_Qty	Text	10	Deliver quantity
Note	Text	20	Note
Supplier_Id	Text	5	Supplier_Id
Admin_Id	Text	5	Admin_Id
Record Size		65	

Table 18: Supplier Table

Primary Key - Supplier_No

Field Type	Date Type	Field Size	Description
Supplier_No	Text	5	Supplier No
Supplier_Name	Text	20	Supplier Name
Supplier_Tp	Number	10	Supplier Telephone Number
Supplier_Email	Text	20	Supplier email
Supplier_Address	Text	20	Supplier Address
Record Size		75	

Table 19: Supplier Payment Table

Primary Key – Supay_Id

Foreign Key -Cashier_Id,SupplierInv_Id,Supplier_Id

Field Type	Date Type	Field Size	Description
Supay_Id	Text	5	Supplier Payment Id
Payment_Method	Text	10	Payment method
Payment_Date	Date	5	Payment date
Total_Amount	Number	10	Total amount
Advanced_Amount	Number	10	Advanced amount
Net_Amount	Number	10	Net amount
Cashier_Id	Text	5	Admin Id
SupplierInv_Id	Text	5	Order Id
Supplier_Id	Text	5	Customer Id
Record Size		65	

Table 20: Material final product details Table

 $Primary\ Key-Resource Material_No,\ Product_No$

Foreign Key- ResourceMaterial_No, Product_No

Field Type	Date Type	Field Size	Description
ResourceMaterial_No	Text	5	Resource material No
Product_No	Text	5	Final product No
Qty	Number	10	Quantity
Record Size		20	

Table 21: Resource supplier invoice details Table

Primary Key – Resource_Material_No, Invoice_No

Foreign Key- Resource_Material_No, Invoice_No

Field Type	Date Type	Field Size	Description
Resource_Material_No	Text	5	Resource material No
Invoice_No	Text	5	Final product No
Description	Text	20	Description
Qty	Number	10	Quantity
Record Size		40	

4.4 Report Layout Design

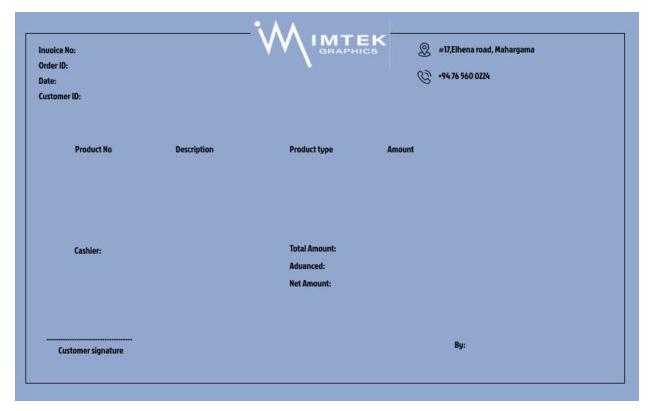
Report No: 01

Report Name: Monthly income Report

	MONTHLY IN	COME REPOR	et 🔃
From: 2023/09/ Invoice No: I_1126		To: 2023/1	0/27
Product Name	Description	Quantity	Amount (Rs.)
	To	tal income Amount	
tal Income Amount	received in month -		
Signature			Date

Report No: 02

Report Name: Product Order Invoice



Report No: 03

Report Name: Monthly Purchase Order Report

		Monthly Pur	chase Order Repor	t - January	
To	otal Amount (Rs.)		Total Orders	Total	Ordered Items
	185,000		28		32
Order ID	Product No	Description	Order Date	Quantity	Amount (Rs.)
0111	YIZ3	Yellow	2023/01/06	1.5L	25,000
0112	R256	Red	2023/01/10	1.5L	25,000
0113	BIZ34	Blue	2023/01/12	1.5L	25,000
0114	B324	Black	2023/01/14	1.5L	25,000
0115	G123	Gold	2023/01/15	1.5L	25,000
0116	PiZ34	Pink	2023/01/20	1.5L	25,000
0117	PRZ8	Paper roll	2023/01/24	100M	10,000
0118	0423	Orange	2023/01/28	1.5L	25,000
		Total Amou	nt		185,000

Report No: 04

Report Name: Monthly Sales Report

	• IMTEK GRAPHICS									
	Monthly Sales Report - January									
	Total Amount (Rs.)		Total Sold Product							
	1,145,000		745							
FProduct No	Description	Units S	iold	Selling Price (Rs.)	Sales Ar	mount (Rs.)				
FP101	Tshirts	50		1500	75	,000				
FP10Z	Frock	25		1200	30),000				
FP103	Bottom	50		2000	10	0,000				
FP104	Tshirts	100		1500	15	0,000				
FP105	Pants	50		1300	65	5,000				
FP106	Bottom	25		2000	50	0,000				
FP107	Tshirts	200		1500	30	00,000				
FP108	Tshirts	250		1500	37	5,000				
	Total Sales Amount					5,000				
Signature				<u></u>	Date					

Report No: 05

Report Name: Weekly Stock Status Report

Weekly Stock Status Report								
	To: 20	23/01/08		To: 2023/01/15				
		Material No	Description	Qty in stock				
		T001	Tshirts	100				
		F001	Frock	50				
		B001	Bottom	50				
		P001	Pants	100				
		Total Materials		300				
	Signature				Date			

Chapter 5: Conclusion

In this project we design tools for management system and development, implementation and database management of Imtek Graphics. We illustrate alternative design techniques and components. We also focus to make a good relationship between institute and student to make as the performance of the performance of the students during the institute and helps to create an environment in constant communication among student parent teacher and institute.

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