MANAHEARTZ CREATION COMPUTER-BASED MANAGEMENT SYSTEM

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BACKGROUND OF THE CLIENT

MANAHEARTZ CREATIONS

Manaheartz Creations is an online shop founded by Arisa Ishikawa, a 2 nd year college student from Columban College, back in November of 2017. The business manufactures and sells an expanding array of handmade customized items such as keychains, key caps, pendants, and bracelets. Her items are available countrywide in the Philippines.

Purpose of the Project

Manaheartz Creations needs a means to manage all types of data that are required to run the business such as customer details, product information, orders, and shipping details, etc. This project will serve as the means for the client to manage customer details, edit product information, track orders, keep the product inventory updated, make order reservations for customers, and much more to be used in the business. This will help the client keep the shop updated as well as track all incoming and ongoing orders.

Overview of the project

The primary characteristic of this project is its capacity to accept user or client input and store the data for later use. This will be accomplished via user-filled form that will be saved in a secured database and the data will be classified into the appropriate data sets to facilitate sorting and querying. The project will also include a page displaying Customer Details, Product Information, and Order List. In addition, the user will be able to search for keywords to find the specific information they require.

Project Objectives

Provide a centralized database for the client that will contain all data related to the business.

The product should not have bugs or glitches that will affect the business and the client in a negative way.

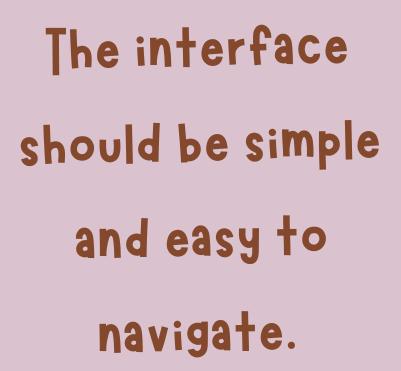**The database should be secured to prevent breaches and leakage of data containing customer information.**

Project Objectives

It should be efficient, responsive, and should not slow down regardless of the amount of data it contains.

The interface should be simple and easy to navigate.

Project Objectives

Provide a centralized database for the client that will contain all data related to the business.

The product should not have bugs or glitches that will affect the business and the client in a negative way.

To present a database system that will allow the client to have a better data management.
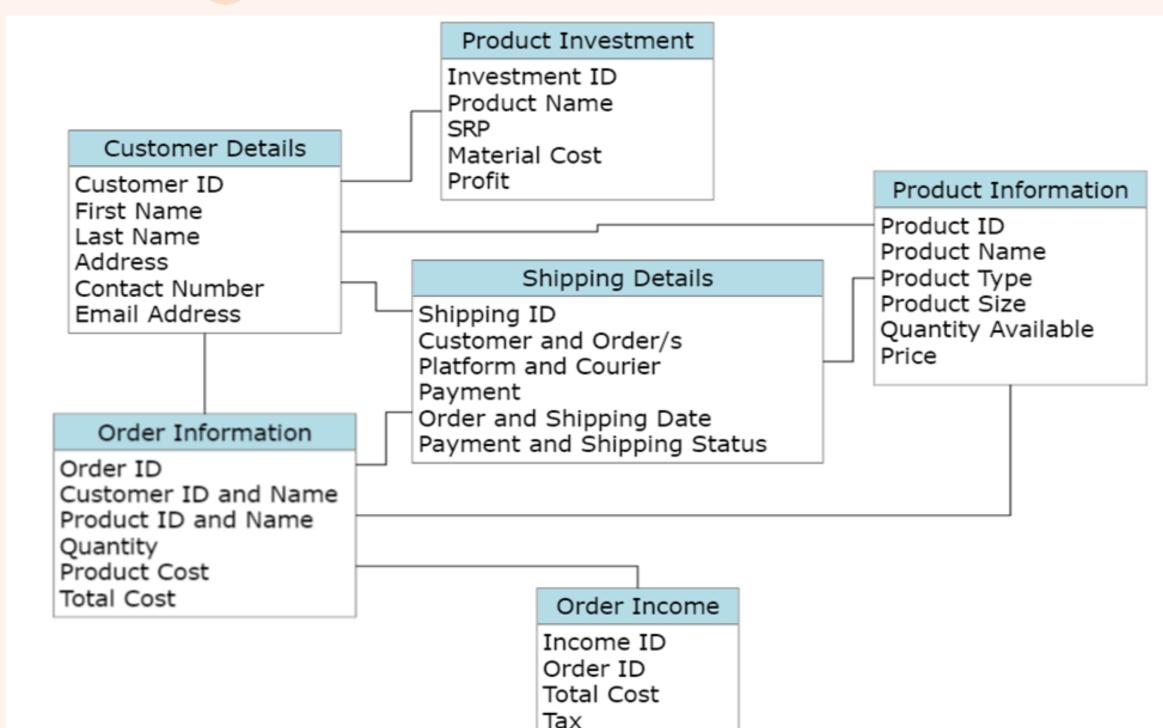
Product Perspective

The Computer Based Management System of Manaheartz Creation is divided into six parts. Customer Details, Product Information, Order Information, Shipping Details, Order Income, and Product Information. These modules are required in making the system functional and working to be used by the user.

User Class and Characteristics

Product Investment

Investment ID
Product Name
SRP
Material Cost
Profit

Customer Details

Customer ID
First Name
Last Name
Address
Contact Number
Email Address

Product Information

Product ID
Product Name
Product Type
Product Size
Quantity Available
Price

Shipping Details

Shipping ID
Customer and Order/s
Platform and Courier
Payment
Order and Shipping Date
Payment and Shipping Status

Order Information

Order ID
Customer ID and Name
Product ID and Name
Quantity
Product Cost
Total Cost

Order Income

Income ID
Order ID
Total Cost
Tax
Income

Sequence Diagram

Customer	Product Details	Order Information	Customer Information	Shipping Information

Customer → Product Details:
- See Product Details
- Product Name
- Product Type
- Product Size
- Price
- Quantity Available

Product Details → Order Information:
- Proceed to Order Information
- Pick Product
- Pick Product Size
- Pick Quantity
- Show Order Details
- Show Total Price
- Return (Optional)

Order Information → Customer Information:
- Proceed To Customer Details
- Enter First Name
- Enter Last Name
- Enter Address
- Enter Contact Number
- Enter Email Address (Optional)
- Show Customer Details
- Return (Optional)

Customer Information → Shipping Information:
- Proceed To Shipping Information
- Pick Platform and Courier
- Pick Payment Option
- Show possible Shipping Date
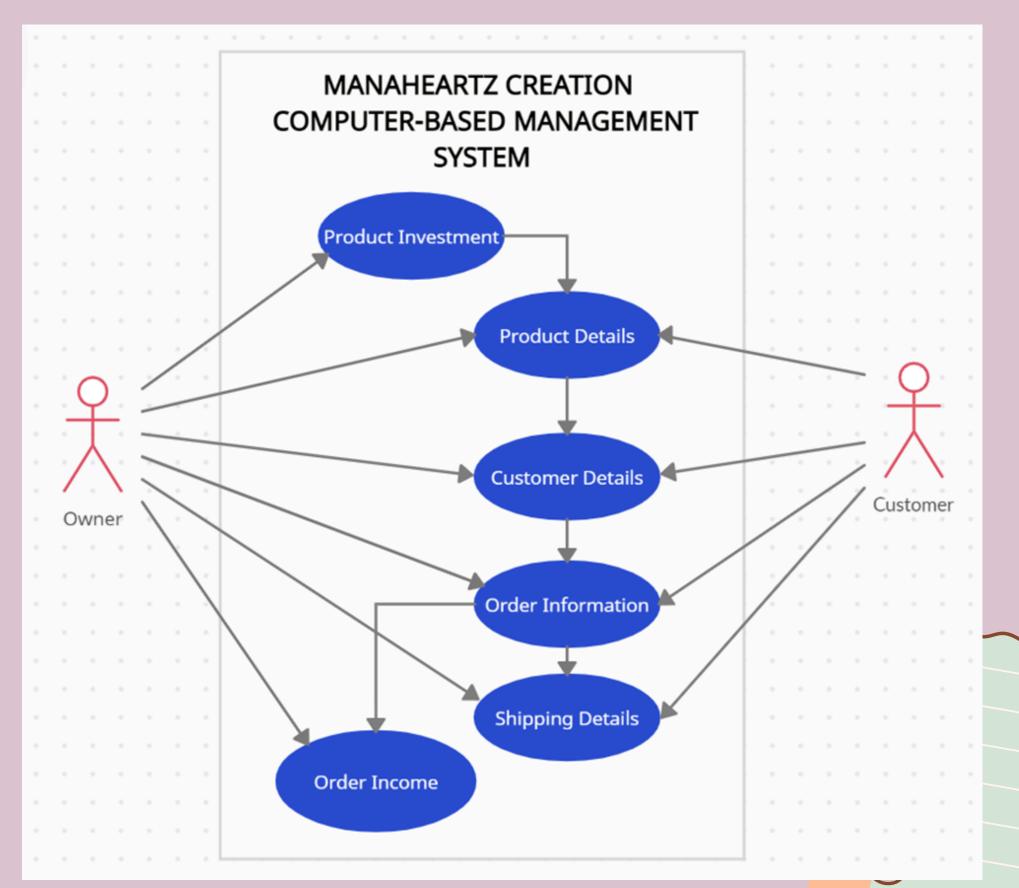- Show Payment and Shipping Details
- Return (Optional)
- Cancel Order
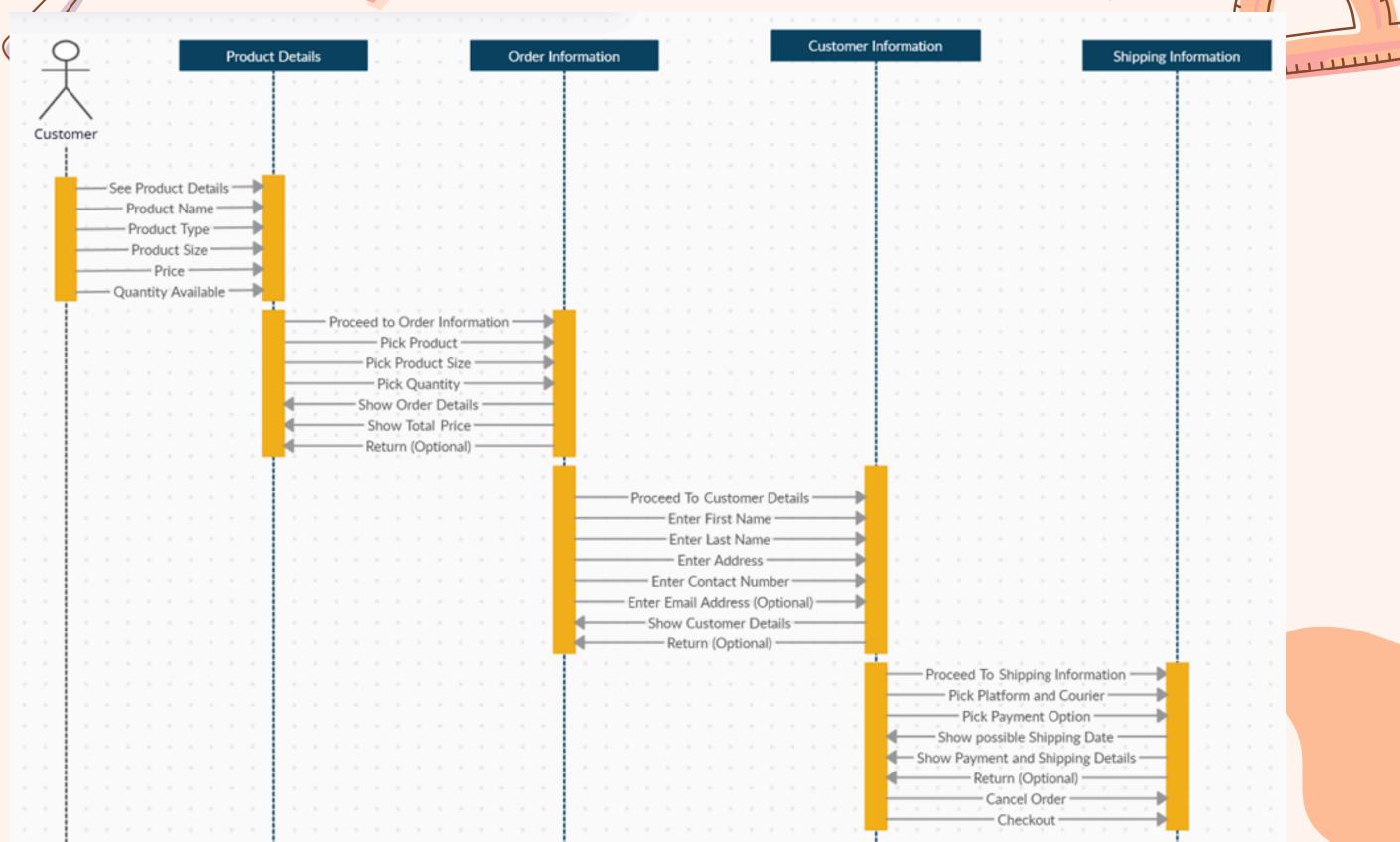- Checkout

Function Requirements

The overall theme or design of the system must be related to the atmosphere of the shop.

The customers must be able search, locate, and see the details of each and all products inside the system.

The customers must be able to order and/or request products in the system.

The customers must be able to pay according to the possible payment options of the system (cash, credit card, gcash, etc.)

The system must allow the administrator or the shop owner to access, view and/or edit most of the information in the system.

Non-Function Requirements

The system must accept information as fast as 0.1 to 0.2 seconds when running.

The system must display product information to the customer in less than 3-5 seconds.

The system must display information to the administrator or the owner such as product stock, product order and request, customer information as quick as 4-10 seconds.

The system must be available of use for the customers whenever the shop is open.

The system must always be available for use by the administrator.

The system must be compatible with low-to-high end PCs.

There should be minimal to none with regards to the system maintenance of the final product of the system.

The system must be able to run on both laptop and computer.

Hardware Requirements for Development

	Recommended Specification
Processor	Intel® Core™ i5-10505 or better
Graphics card	GTX 1650 or better
Memory	8gb or higher

Hardware Requirements for the Deployment of the System

	Recommended Specification
Processor	Intel® Core™ i5-8600K or better
Graphics card	GTX 1050 Ti or better
Memory	4gb or higher

Software Requirements for Development

Operating System
Database Management Software
IDE
Documentation Software
Graphic design software

Recommended Specification
Windows 10 or better
MySQL
Visual Studio Code
Microsoft Office
Adobe Photoshop

Software Requirements for the Deployment of the System

Operating System
Database Management Software

Recommended Specification
Windows 10 or better
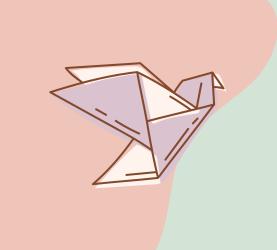**MySQL**

Security Requirements

Authentication and password management – The system must include the minimum requirement for secure creation, modification, and deletion of password/s that access the system.

Authorization and role management – The system should have a specific authorization for each personnel or administrator that access different parts of the system "who can access what".

Audit logging and analysis – The system must include a way to capture details about any access and events and configuration with regards to the system.

Network and data security – The system must have a strong network and data security that secures the confidentiality and accessibility of the data and network of the system.

Code integrity and validation testing – The system must include a way to check and control any corruption or malicious software that can access, modify, delete, or any possible interference with the system.

SYSTEM PROTOTYPE (DATABASE)

Main Menu

the Main Menu is the starting point where we can easily access all the other functions and forms that is in the system.

Main Menu!

What would you like to do?

Add, Modify, and View Records:

Customer Information

Customer Request

Order Information

Product Information

Shipping Information

Order Income

Product Investment

View Records List Only:

Customer Information List

Customer Request List

Order Information List

Orders Income List

Shipping Information List

Product Stock List

Add, Modify, and View Records:

Customer Information

Customer Request

Order Information

Product Information

Shipping Information

Order Income

Product Investment

1st Part of the Main Menu

ADD, MODIFY, AND VIEW RECORDS

Customer Information

Add, Modify, and View Records:

- Customer Information
- Customer Request
- Order Information
- Product Information
- Shipping Information
- Order Income
- Product Investment

The Customer Information stores all the information of the customers who are going to be buying and/or requesting products in the shop.

Customer Information

CustomerID   1

FirstName   Angelo

LastName   Santiago

Address   Pag-asa

ContactNumber   4892 374 2894

EmailAddress   phantom@gmail.com

Add Record   Main Menu

Customer Request
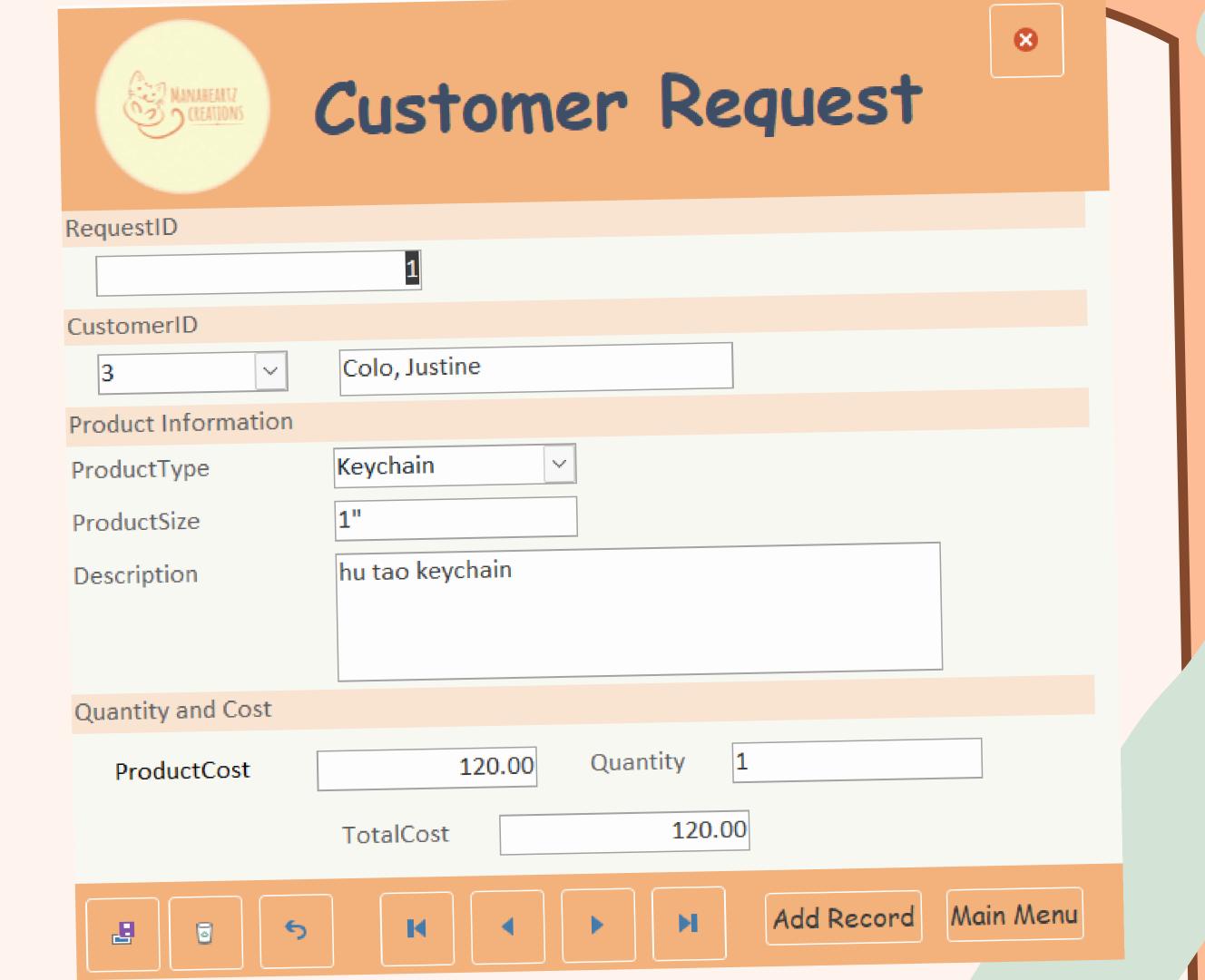
Add, Modify, and View Records:

- Customer Information
- Customer Request
- Order Information
- Product Information
- Shipping Information
- Order Income
- Product Investment

The Customer Request allows the user to store all the information regarding the requested products of the customers.

Customer Request

RequestID

1

CustomerID

3 | Colo, Justine

Product Information

ProductType   Keychain

ProductSize   1"

Description   hu tao keychain

Quantity and Cost

ProductCost   120.00   Quantity   1

TotalCost   120.00

Add Record | Main Menu

Add, Modify, and View Records:
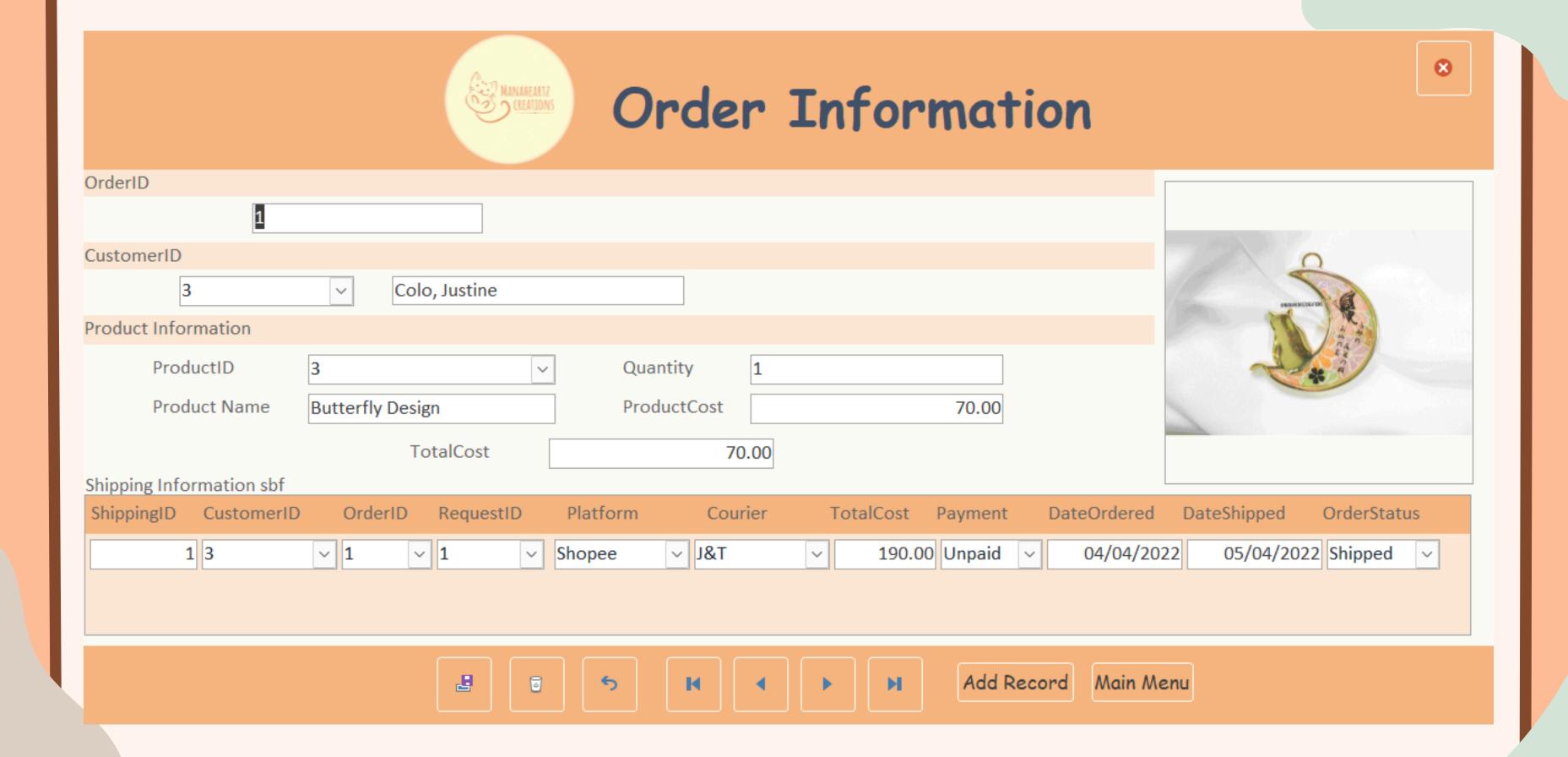
- Customer Information
- Customer Request
- Order Information
- Product Information
- Shipping Information
- Order Income
- Product Investment

Order Information

The Order Information stores all the ordered products by the customers.

Order Information

OrderID

1

CustomerID

3 | Colo, Justine

Product Information

ProductID: 3

Quantity: 1

Product Name: Butterfly Design

ProductCost: 70.00

TotalCost: 70.00

Shipping Information sbf

ShippingID	CustomerID	OrderID	RequestID	Platform	Courier	TotalCost	Payment	DateOrdered	DateShipped	OrderStatus
1	3	1	1	Shopee	J&T	190.00	Unpaid	04/04/2022	05/04/2022	Shipped

Add Record   Main Menu

Product Information

Add, Modify, and View Records:

- Customer Information
- Customer Request
- Order Information
- Product Information
- Shipping Information
- Order Income
- Product Investment

The Product Information allows the user to store all the information of the products to be or being sold in the online shop.

Product Information

ProductID

1

ProductName

Genshin Impact Vision Keychain

ProductType

Keychain

ProductSize

1"

Quantity

100

SRP

125.00

WholesalePrice

120.00

Add Record   Main Menu

Add, Modify, and View Records:

Customer Information

Customer Request

Order Information

Product Information

Shipping Information
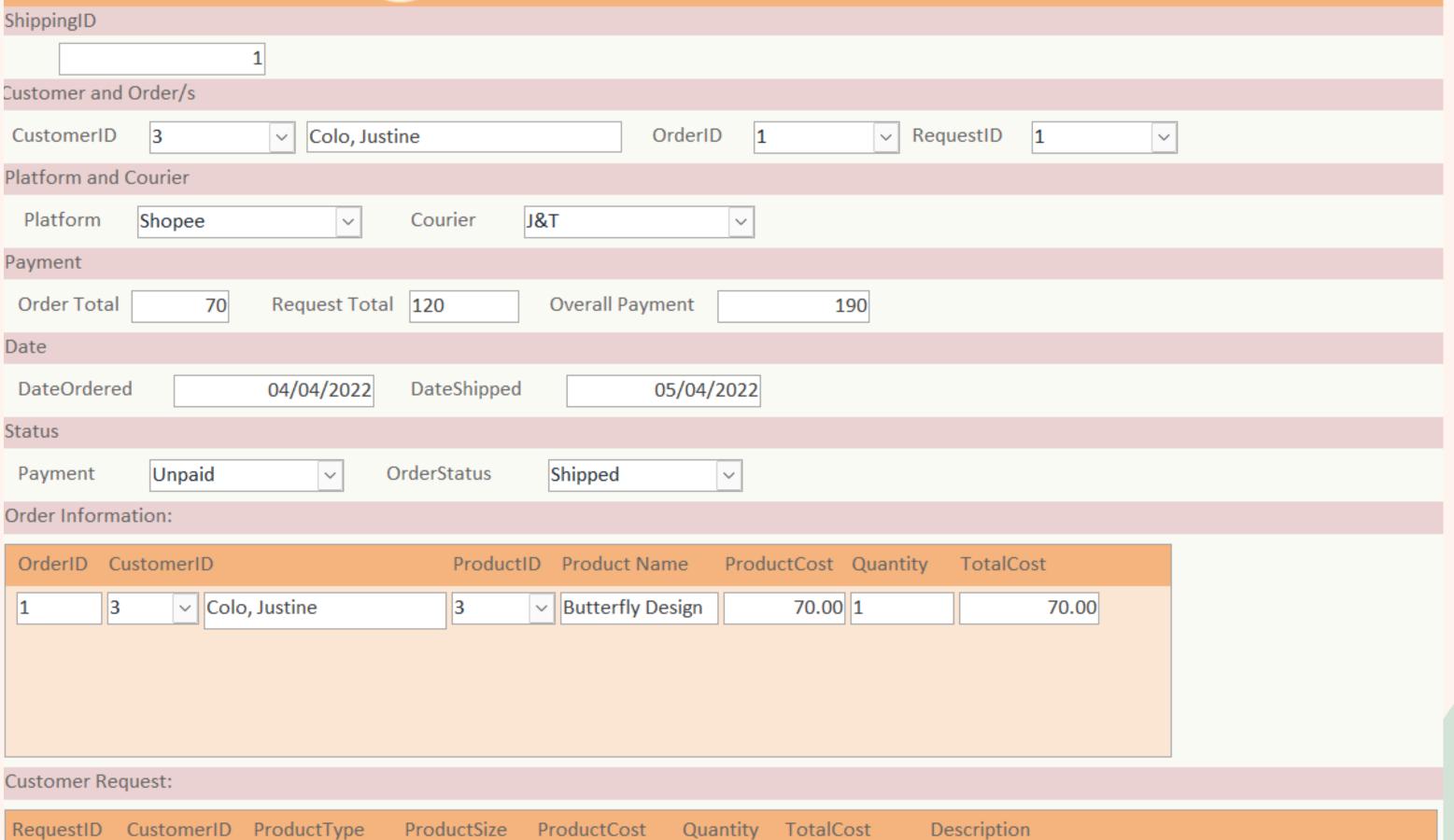
Order Income

Product Investment

Shipping Information

The Shipping Information contains all the information needed for preparing and shipping the requested and/or sold product/s.

Shipping Informatior

ShippingID

1

Customer and Order/s

CustomerID | 3 | Colo, Justine | OrderID | 1 | RequestID | 1

Platform and Courier

Platform | Shopee | Courier | J&T

Payment

Order Total | 70 | Request Total | 120 | Overall Payment | 190

Date

DateOrdered | 04/04/2022 | DateShipped | 05/04/2022

Status

Payment | Unpaid | OrderStatus | Shipped

Order Information:

OrderID	CustomerID		ProductID	Product Name	ProductCost	Quantity	TotalCost
1	3	Colo, Justine	3	Butterfly Design	70.00	1	70.00

Customer Request:

RequestID	CustomerID	ProductType	ProductSize	ProductCost	Quantity	TotalCost	Description
1	3	Keychain	1"	120.00	1	120.00	hu tao keychain

Order Income

Add, Modify, and View Records:

- Customer Information
- Customer Request
- Order Information
- Product Information
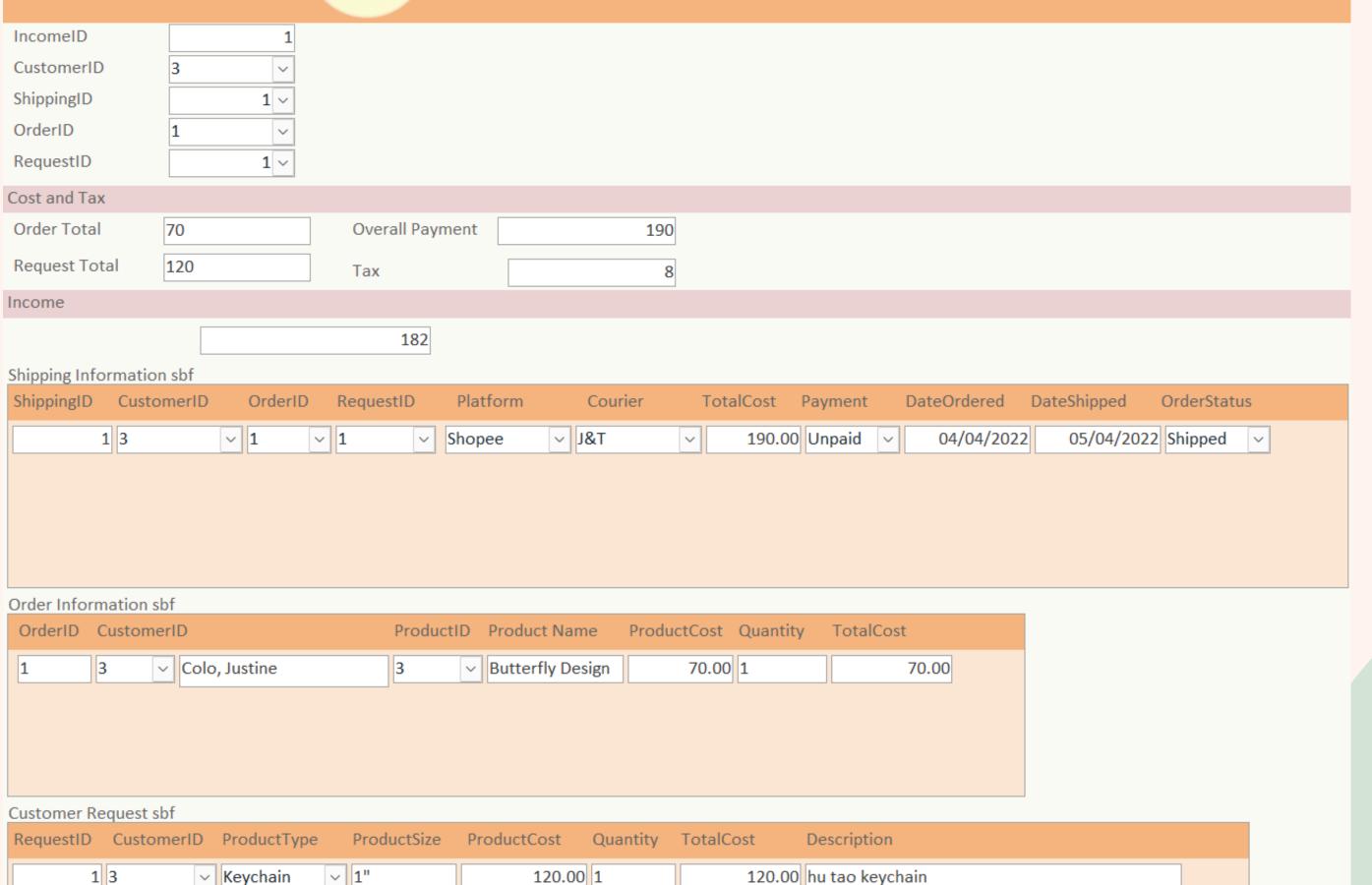- Shipping Information
- Order Income
- Product Investment

The Order Income stores all the data regarding the income made in an specific order.

Order Income

IncomeID | 1
CustomerID | 3
ShippingID | 1
OrderID | 1
RequestID | 1

Cost and Tax

Order Total | 70 | Overall Payment | 190
Request Total | 120 | Tax | 8

Income

182

Shipping Information sbf

ShippingID	CustomerID	OrderID	RequestID	Platform	Courier	TotalCost	Payment	DateOrdered	DateShipped	OrderStatus
1	3	1	1	Shopee	J&T	190.00	Unpaid	04/04/2022	05/04/2022	Shipped

Order Information sbf

OrderID	CustomerID		ProductID	Product Name	ProductCost	Quantity	TotalCost
1	3	Colo, Justine	3	Butterfly Design	70.00	1	70.00

Customer Request sbf

RequestID	CustomerID	ProductType	ProductSize	ProductCost	Quantity	TotalCost	Description
1	3	Keychain	1"	120.00	1	120.00	hu tao keychain

Product Investment

Add, Modify, and View Records:

- Customer Information
- Customer Request
- Order Information
- Product Information
- Shipping Information
- Order Income
- Product Investment

The Product Investment Information stores all the data regarding the amount needed to invest to a specific product.

Product Investment Information

InvestmentID

1

ProductName

Genshin Impact Vision Keychain

SRP

120.00

MaterialCost

40.00

Profit

80.00

Add Record   Main Menu

View Record List Only:

Customer Information List

Customer Request List

Order Information List

Orders Income List

Shipping Information List

Product Stock List

2nd Part of the Main Menu

VIEW RECORD LIST ONLY

Customer Information List

View Record List Only:

- Customer Information List
- Customer Request List
- Order Information List
- Orders Income List
- Shipping Information List
- Product Stock List

Customer Information List allows you to view all the information of the customers at once.

Customer Information List

CustomerID	FirstName	LastName	Address	ContactNumber	EmailAddress
1	Angelo	Santiago	Pag-asa	4892 374 2894	phantom@gmail.com
2	Asiah	Pangkatan	Kalayaan	9234 898 4324	mikazuki@gmail.com
3	Justine	Colo	Bataan	8923 472 4982	nekooo@gmail.com
4	Ishie	Llanes	East Tapinac	1526 378 9324	ishie@gmail.com
5	Zervi	Carpeso	West Tapinac	9248 645 3879	hi@gmail.com
6	Keon	Salonga	Bataan	9348 459 3729	ghost@gmail.com
7	Deniz		Gordon Heights	2983 983 1893	bamibami@gmail.com

Customer Request List

View Record List Only:

- Customer Information List
- Customer Request List
- Order Information List
- Orders Income List
- Shipping Information List
- Product Stock List

Customer Request List allows you to view all the request information of the customers at once.

Customer Request List

RequestID	CustomerID	ProductType	ProductSize	ProductCost	Quantity	TotalCost	Description
1	3	Keychain	1"	120.00	1	120.00	hu tao keychain
2	4	Bracelet	2"	150.00	3	450.00	venti bracelet

Order Information List

View Record List Only:

Customer Information List

Customer Request List

Order Information List

Orders Income List

Shipping Information List

Product Stock List

Order Information List allows you to view all the information of the orders all at once.

Order Information List

OrderID	CustomerID		ProductID		Product Name	ProductCost	Quantity	TotalCost
1	3	Colo, Justine	3		Butterfly Design	70.00	1	70.00
2	4	Llanes, Ishie	4		Deer in a Snow D	120.00	1	120.00
3	1	Santiago, Angelo	7		BTS Bookmark	110.00	2	220.00
4	2	Pangkatan, Asiah	5		Cute Aesthetic Ba	110.00	3	330.00
5	1	Santiago, Angelo	9		Galaxy Initial Lett	140.00	5	700.00
6	4	Llanes, Ishie	8		LALISA bookmark	130.00	1	130.00

Order Income List

View Record List Only:

- Customer Information List
- Customer Request List
- Order Information List
- Orders Income List
- Shipping Information List
- Product Stock List

Order Income List allows you to view all the income information of the sold products all at once, including the requested ones.

Orders Income List

IncomeID	CustomerID	ShippingID	OrderID	RequestID	TotalCost	Tax	Income
					190	8	232
1	3	1	1	1	700	10	290
2	4	2	2	2	330	10	290
3	2	3	4		920	20	880
4	1	4	3, 5				

Shipping Information List

View Record List Only:

- Customer Information List
- Customer Request List
- Order Information List
- Orders Income List
- Shipping Information List
- Product Stock List

Shipping Information List allows you to view all of the list of products being prepared, shipped and delivered.

Shipping Information List

ShippingID	CustomerID	OrderID	RequestID	Platform	Courier	TotalCost	Payment	DateOrdered	DateShipped	OrderStatus
1	3	1	1	Shopee	J&T	190.00	Unpaid	04/04/2022	05/04/2022	Shipped
2	4	2, 6	2	Shopee	Shopee Xpres	700.00	Paid	02/03/2022	04/03/2022	Delivered
2	4	2, 6	2	Shopee	Shopee Xpres	700.00	Paid	02/03/2022	04/03/2022	Delivered
3	2	4		Shopee	J&T	330.00	Paid	13/04/2022	14/04/2022	Delivered
4	1	3, 5		Lazada	LexPH	920.00	Paid	28/03/2022	30/03/2022	Delivered
4	1	3, 5		Lazada	LexPH	920.00	Paid	28/03/2022	30/03/2022	Delivered

Product Stock List

Customer Information List

Customer Request List

Order Information List

Orders Income List

Shipping Information List

Product Stock List

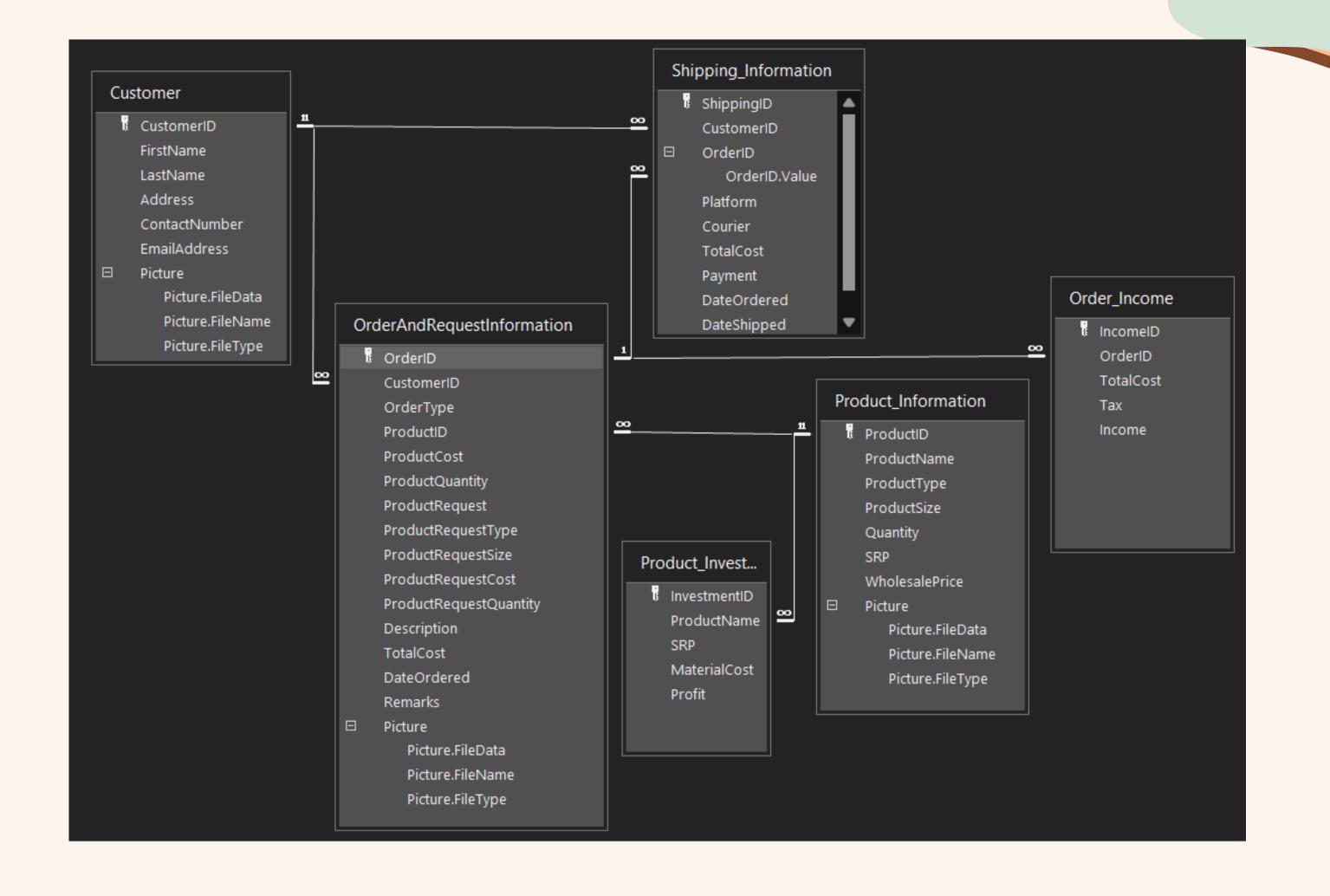Product Stock List allows you to view all of the stock of products that is in the system.

Product Stocks

Quantity	ProductID	ProductName	ProductType	ProductSize	SRP	WholesalePrice
100	8	LALISA bookmark	Bookmark	6"	130.00	120.00
100	7	BTS Bookmark	Bookmark	4"	110.00	100.00
100	2	Pressed Flower Necklace	Necklace	0.5"	150.00	145.00
100	1	Genshin Impact Vision Keychain	Keychain	1"	125.00	120.00
56	6	Gold Clock Charm	Keychain	1"	100.00	90.00
58	4	Deer in a Snow Dome Charm	Keychain	3"	120.00	110.00
67	5	Cute Aesthetic Bagcharm	Keychain	2"	110.00	100.00
967	9	Galaxy Initial Letter with Zodiac Si|	Keychain	4"	140.00	130.00
97	3	Butterfly Design	Keychain	2"	70.00	60.00

RELATIONSHIP OF THE MANAHEARTZ CREATION DATABASE SYSTEM

Thank You