Software Requirements Specification

for

Nekoya

Version 1.0.0

Prepared by

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Instructor:	DESI ARISANDI S.Kom., M.T.I.
Course:	Software Development
Date:	Monday, 30 May 2022

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1 Introduction

1.1 Purpose

The purpose of this document is to describe what our software will do and how it will be expected to perform. The software we are building is an e-commerce app that allows people to buy shoes straight from your phone.

This SRS is intended for our instructor to check, approve, and oversee the making of this SRS. It is also for the developers of this application to know the design of this application.

1.2 Scope

This application is an e-commerce app named Nekoya, that is gonna be used to buy various types of shoes. The purpose of this app is so people can buy various types of shoes using just one app. This application is aimed at people who want to see and buy shoes straight on their mobile devices.

The obvious benefits of using this instead of our E-Commerce website is that it’s more intuitive and looks better for people shopping using a mobile phone instead of a computer browser.

The Nekoya application is useful if you want to buy shoes because it’s easier to use the application and it can be done anywhere, anytime and directly in real time. The Nekoya application supports both iOS and Android platforms.

1.3 Overview

This SRS contains the purpose, description, and design of Nekoya application such as application functions, constraints, dependencies used by the application, and specification requirements.

This SRS is organized according to the IEEE Software Requirements Specification Template, and according to our Instructor’s provided template.

2 Overall Description

2.1 Product Perspective

This application is not considered a Self-Contained app because it is technically a frontend application that connects to our backend server which is where most of the processing occurs since the app mostly allows users to just see and buy shoes from our catalog. The owner of the store can also add items to the catalog by using the app.

The Backend of our application is running Node.Js which is hosted on the main server and connects to our application through the Internet. We use our APIs to send and receive data from the frontend mobile application to the main server such as to Login, Register, make Transactions, etc.

The Application that we’re building should run just fine in various mobile devices because we are using Flutter which allows the codebase to be developed into many different formats. It’s also lightweight enough that it should run in most modern smartphones that people use today.

The backend of our application should be able to run in any types of hardware. As long as it can run Node.Js, then it should be good enough to run the server.

2.2 Product Functions

- **Splash Screen :** Splash screen is used to display the logo of the Nekoya App
- **Home Screen :** Screen featuring a variety of our new and popular products, also with search functionality
- **Newsletter :** Function to get the latest update via email
- **Products List :** Show all available products
- **Product Details :** Show specific product details
- **Login :** Using credentials to access an account
- **Register :** Using credentials to create an account
- **Forgot Password :** Screen to reset an account’s password
- **Shopping Bag :** List of items to be purchased
- **Checkout :** A process for doing the transaction
- **Payment :** Process for the user to pay the items that has been purchased
- **Transactions List :** List of transactions
- **FAQ :** A list of questions and answers relating to a particular subject, especially one giving basic information for users of a website or application
- **About Us Page :** A reflection of the purpose and personality of the business
- **2-Factor Verification :** A function that can be enabled per account, to add more security by having the need to input an OTP number from Telegram everytime the user tries to login.
- **Search :** A function for user to search items from our catalog

- **Active Sessions :** A feature that allows users to see devices that are currently logged in to Nekoya.

2.3 User Characteristics

Basic knowledge of using an E-Commerce app is needed to operate this application. The User should know how an E-Commerce system works and how to use it properly. From the application design itself, the user interface will be user friendly enough to guide the user on how to use the app properly.

2.4 Constraints

- The backend server must support parallel operations so that multiple users can view, access, and do transactions at the same time.
- Security-wise, the passwords for user accounts must always be encrypted..
- To use the app, you need a usable internet connection.

2.5 Assumptions and Dependencies

- Database : MySQL
- Programming Language : Node.JS (Web/Backend), Dart (Mobile Application)
- Framework : ExpressJS (Web/Backend), Flutter (Mobile Application)
- Web Server : Nginx (Web/Backend)

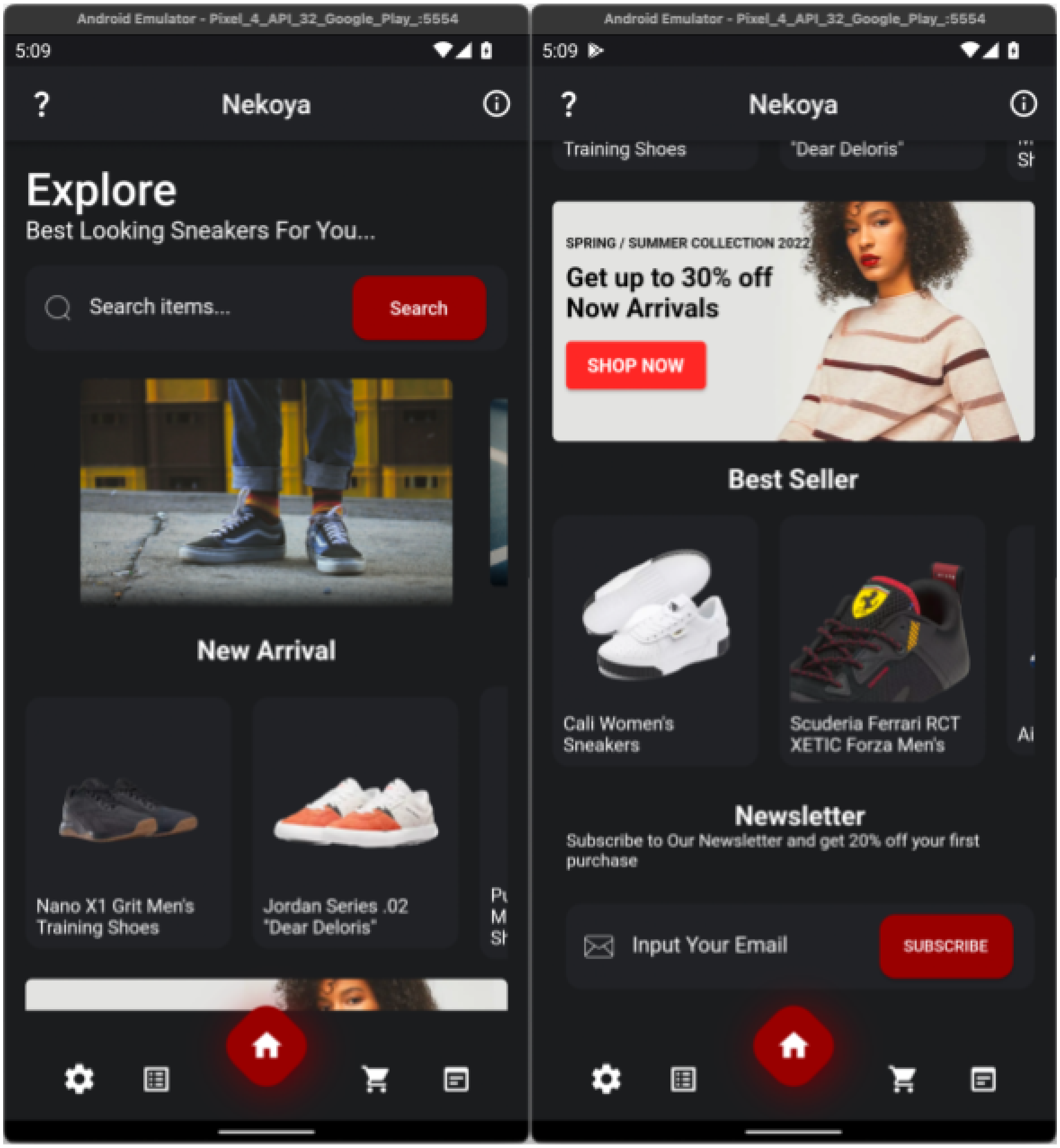
Some of our NodeJs Packages that are crucial for our backend system to work properly :

1. *Axios*
2. *bcrypt*
3. *body-parser*
4. *cookie-parser*
5. *ejs*
6. *express*
7. *express-session*
8. *morgan*
9. *mysql2*
10. *nodemailer*
11. *rand-token*

3 Specific Requirements

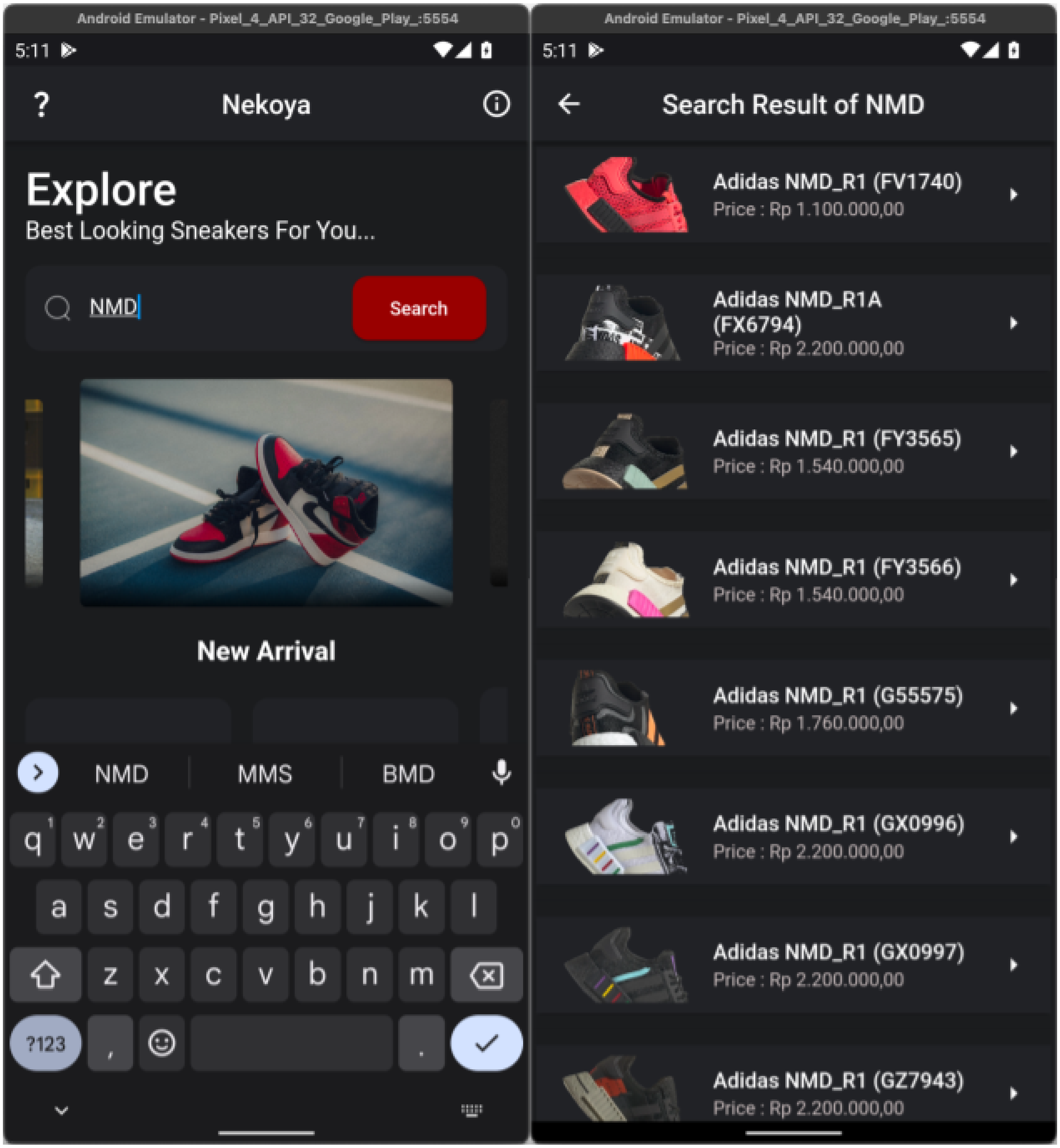
3.1 External Interface Requirements

3.1.1 User Interfaces


Android Emulator - Pixel_4_API_32_Google_Play_:5554
5:09
?
Nekoya
Explore
Best Looking Sneakers For You...
Search items...
Search
New Arrival
Nano X1 Grit Men's Training Shoes
Jordan Series .02 "Dear Deloris"
Android Emulator - Pixel_4_API_32_Google_Play_:5554
5:09
?
Nekoya
Training Shoes
"Dear Deloris"
SPRING / SUMMER COLLECTION 2022
Get up to 30% off Now Arrivals
SHOP NOW
Best Seller
Cali Women's Sneakers
Scuderia Ferrari RCT XETIC Forza Men's
Newsletter
Input Your Email
SUBSCRIBE

Subscribe to Our Newsletter and get 20% off your first purchase

Home Screen



Android Emulator - Pixel_4_API_32_Google_Play_:5554
5:11
?
Nekoya
Explore
Best Looking Sneakers For You...
NMD
Search
New Arrival
NMD
MMS
BMD
?123
Android Emulator - Pixel_4_API_32_Google_Play_:5554
5:11

Search Result of NMD

Adidas NMD_R1 (FV1740)
Price : Rp 1.100.000,00

Adidas NMD_R1A (FX6794)
Price : Rp 2.200.000,00

Adidas NMD_R1 (FY3565)
Price : Rp 1.540.000,00

Adidas NMD_R1 (FY3566)
Price : Rp 1.540.000,00

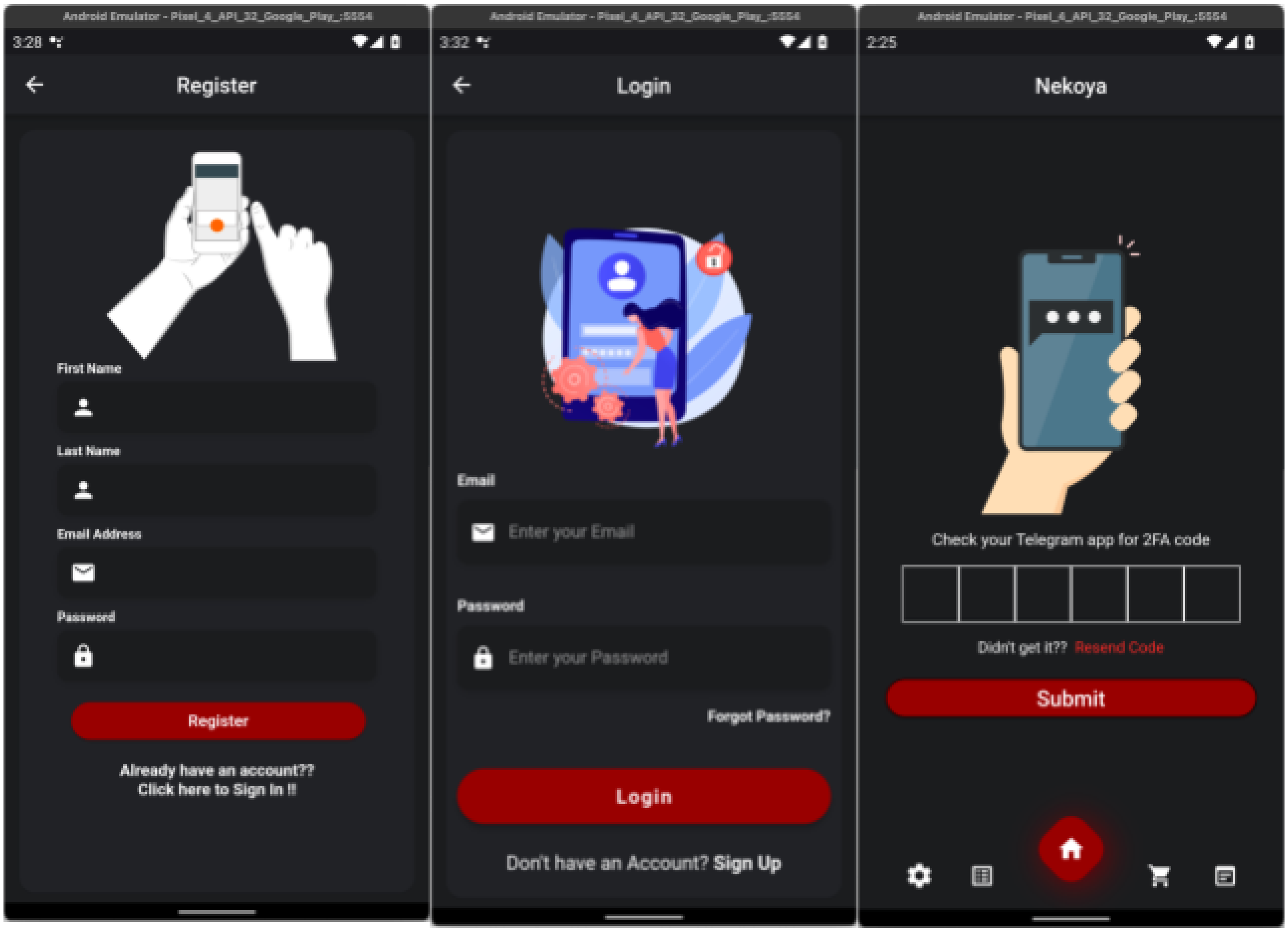
Adidas NMD_R1 (G55575)
Price : Rp 1.760.000,00

Adidas NMD_R1 (GX0996)
Price : Rp 2.200.000,00

Adidas NMD_R1 (GX0997)
Price : Rp 2.200.000,00

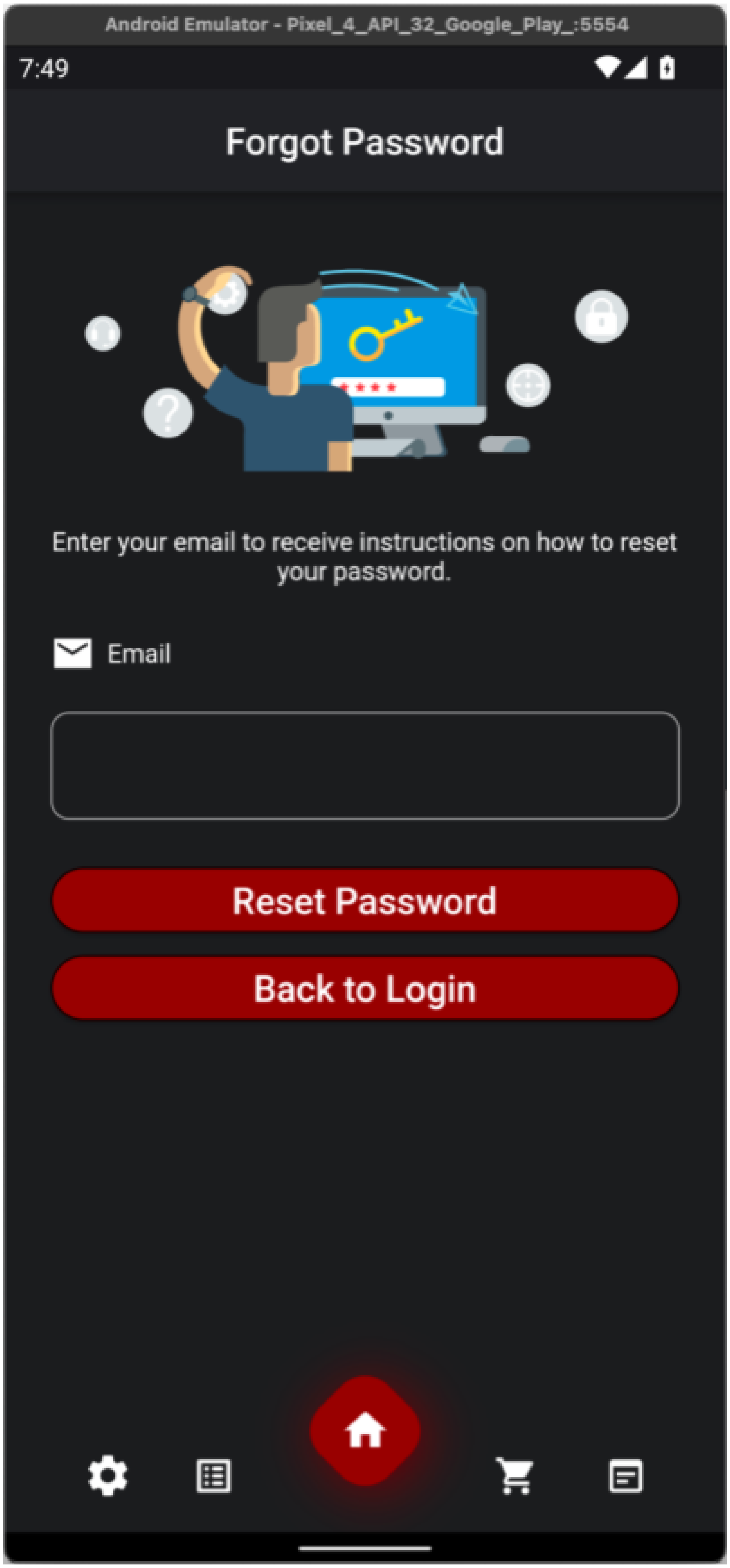
Adidas NMD_R1 (GZ7943)
Price : Rp 2.200.000,00

Search Function


Android Emulator - Pixel_4_API_32_Google_Play_:5554
3:28
Register
First Name
Last Name
Email Address
Password
Register
Already have an account??
Click here to Sign In !!
Android Emulator - Pixel_4_API_32_Google_Play_:5554
3:32
Login
Email
Enter your Email
Password
Enter your Password
Forgot Password?
Login
Don't have an Account? Sign Up
Android Emulator - Pixel_4_API_32_Google_Play_:5554
2:25
Nekoya
Didn't get it?? Resend Code
Submit

Check your Telegram app for 2FA code

Register, Login, and 2FA



Android Emulator - Pixel_4_API_32_Google_Play_:5554

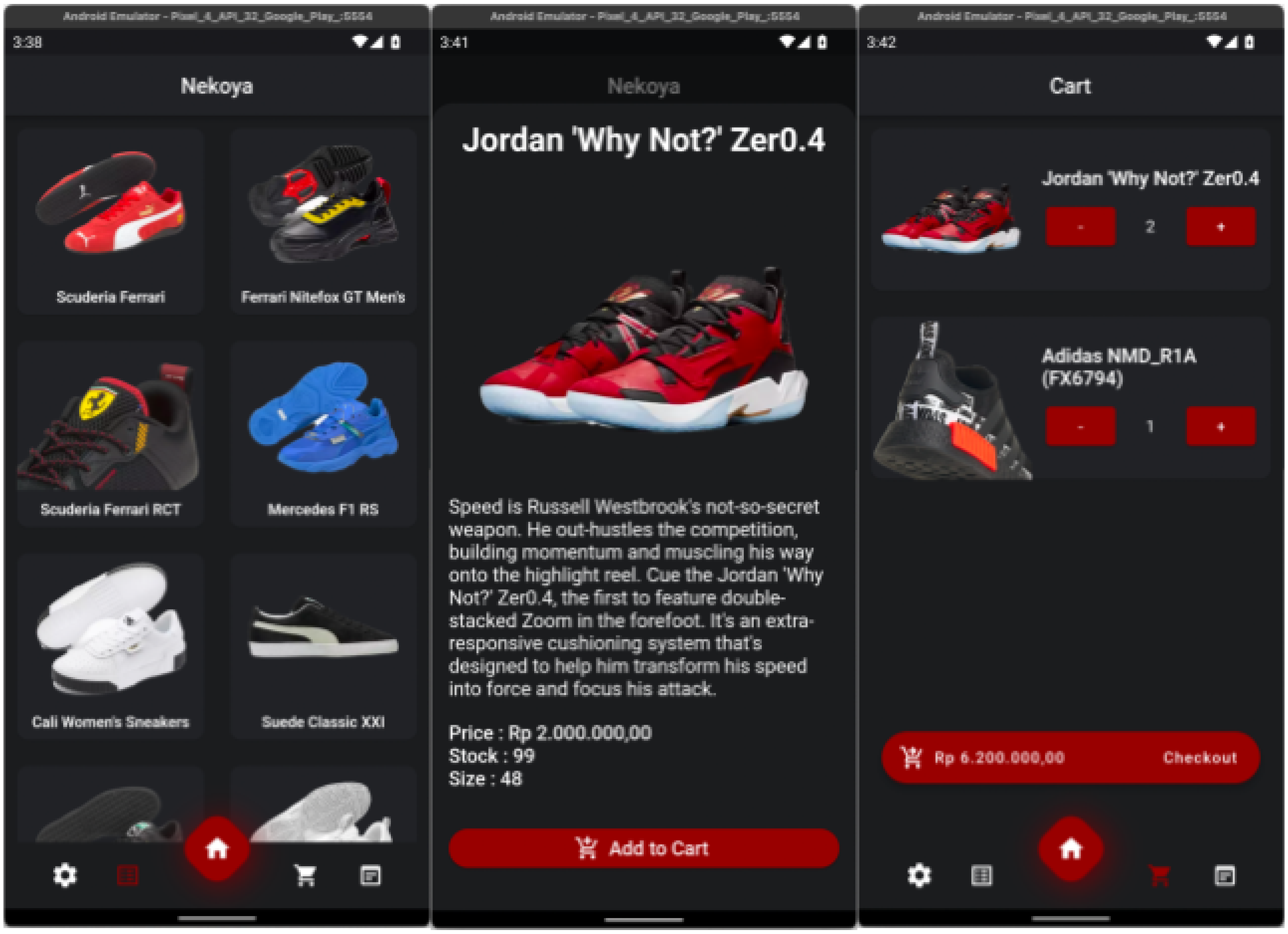
7:49

Forgot Password

Enter your email to receive instructions on how to reset your password.

Email

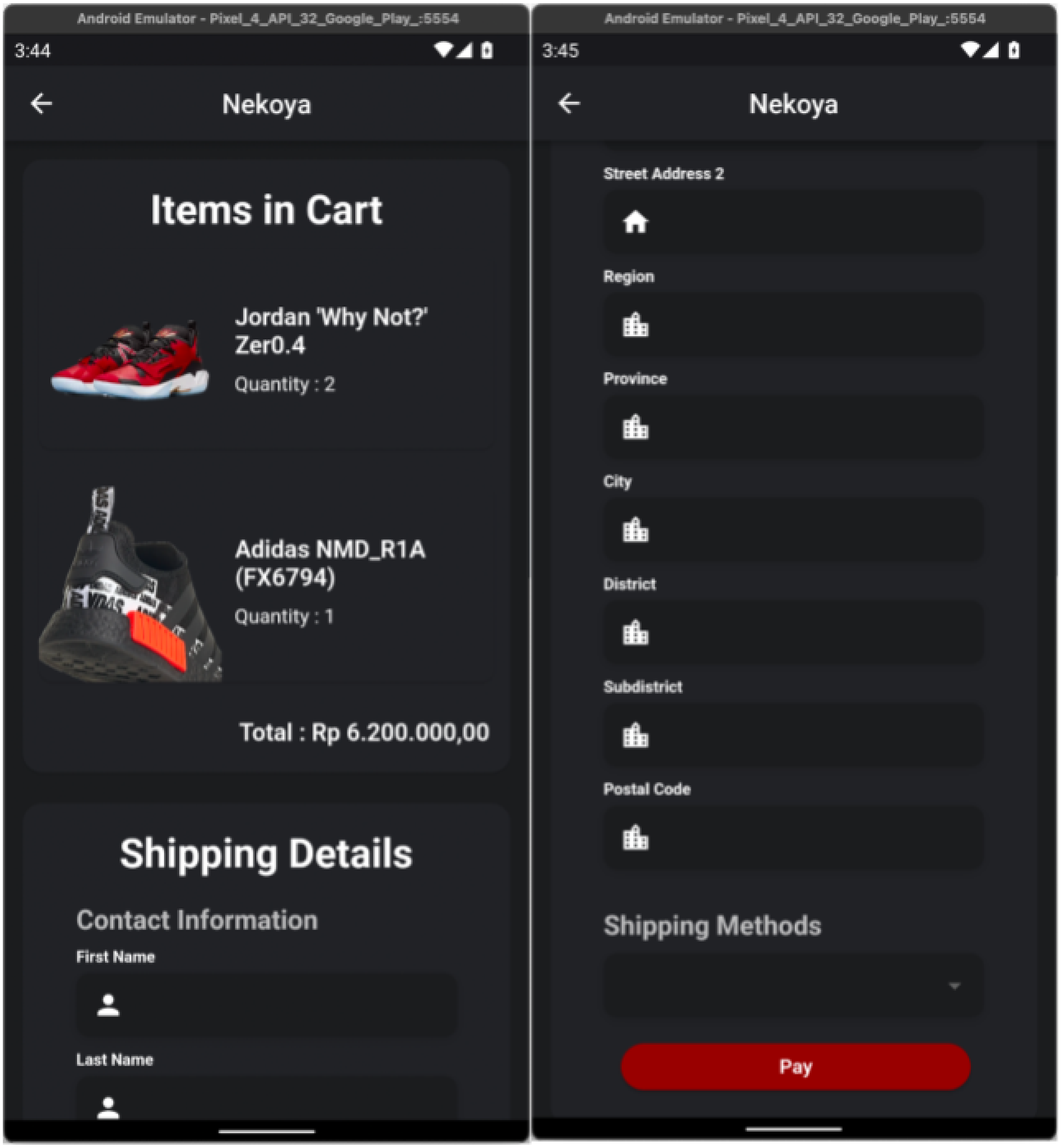
Password Reset Function



Speed is Russell Westbrook's not-so-secret weapon. He out-hustles the competition, building momentum and muscling his way onto the highlight reel. Cue the Jordan 'Why Not?' Zer0.4, the first to feature double-stacked Zoom in the forefoot. It's an extra-responsive cushioning system that's designed to help him transform his speed into force and focus his attack.

Price : Rp 2.000.000,00
Stock : 99
Size : 48

Products List, Individual Product Card, and Shopping Cart



Android Emulator - Pixel_4_API_32_Google_Play_:5554

3:44

Nekoya

Items in Cart

Jordan 'Why Not?' Zer0.4
Quantity : 2

Adidas NMD_R1A (FX6794)
Quantity : 1

Total : Rp 6.200.000,00

Shipping Details

Contact Information

First Name

Last Name

Android Emulator - Pixel_4_API_32_Google_Play_:5554

3:45

Nekoya

Street Address 2

Region

Province

City

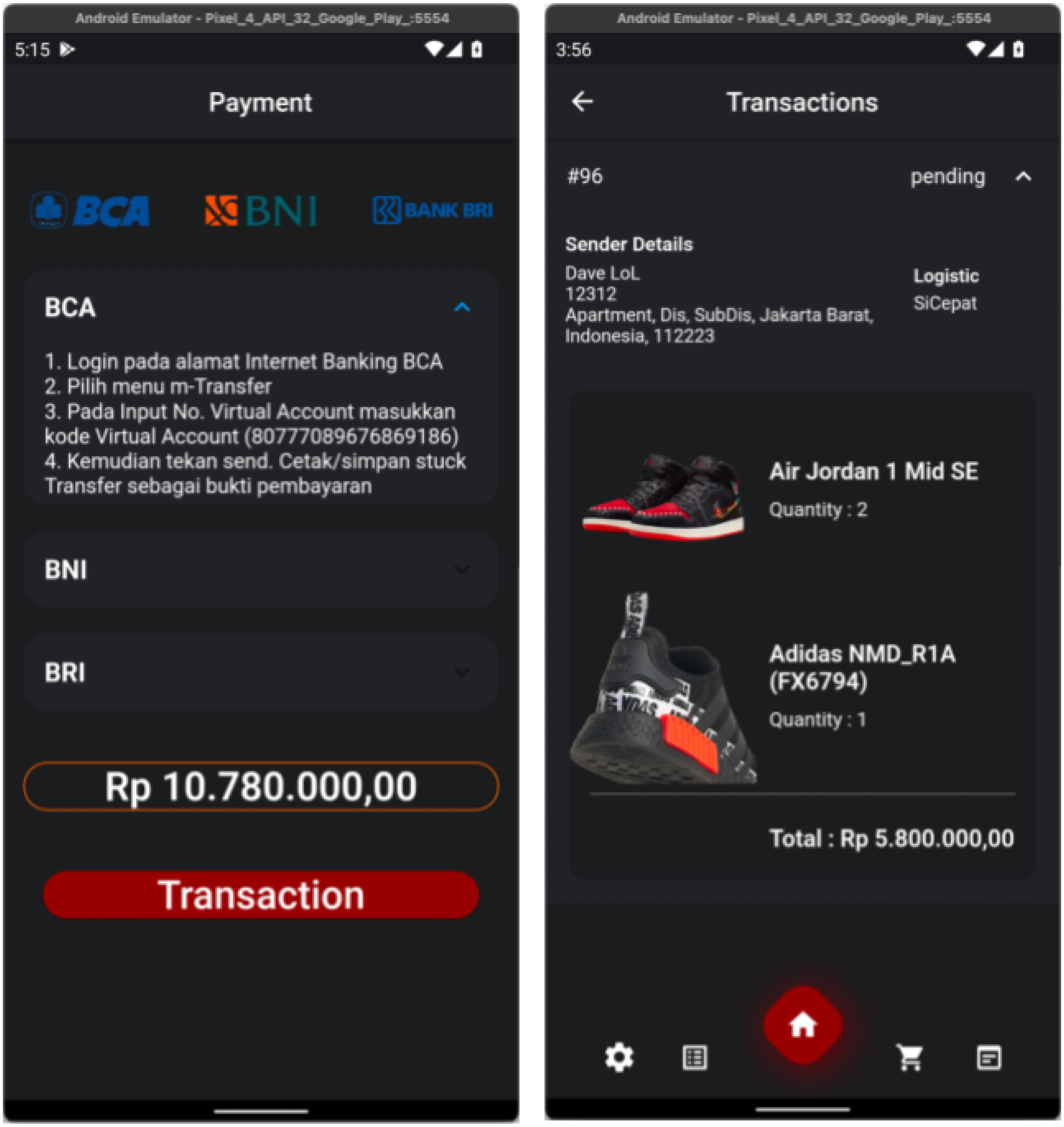
District

Subdistrict

Postal Code

Shipping Methods

Checkout Page



Android Emulator - Pixel_4_API_32_Google_Play_:5554

5:15

Payment

BCA

1. Login pada alamat Internet Banking BCA
2. Pilih menu m-Transfer
3. Pada Input No. Virtual Account masukkan kode Virtual Account (80777089676869186)
4. Kemudian tekan send. Cetak/simpan stuck Transfer sebagai bukti pembayaran

BNI

BRI

Rp 10.780.000,00

Transaction

Android Emulator - Pixel_4_API_32_Google_Play_:5554

3:56

Transactions

#96 pending

Sender Details
Dave LoL
12312
Apartment, Dis, SubDis, Jakarta Barat, Indonesia, 112223

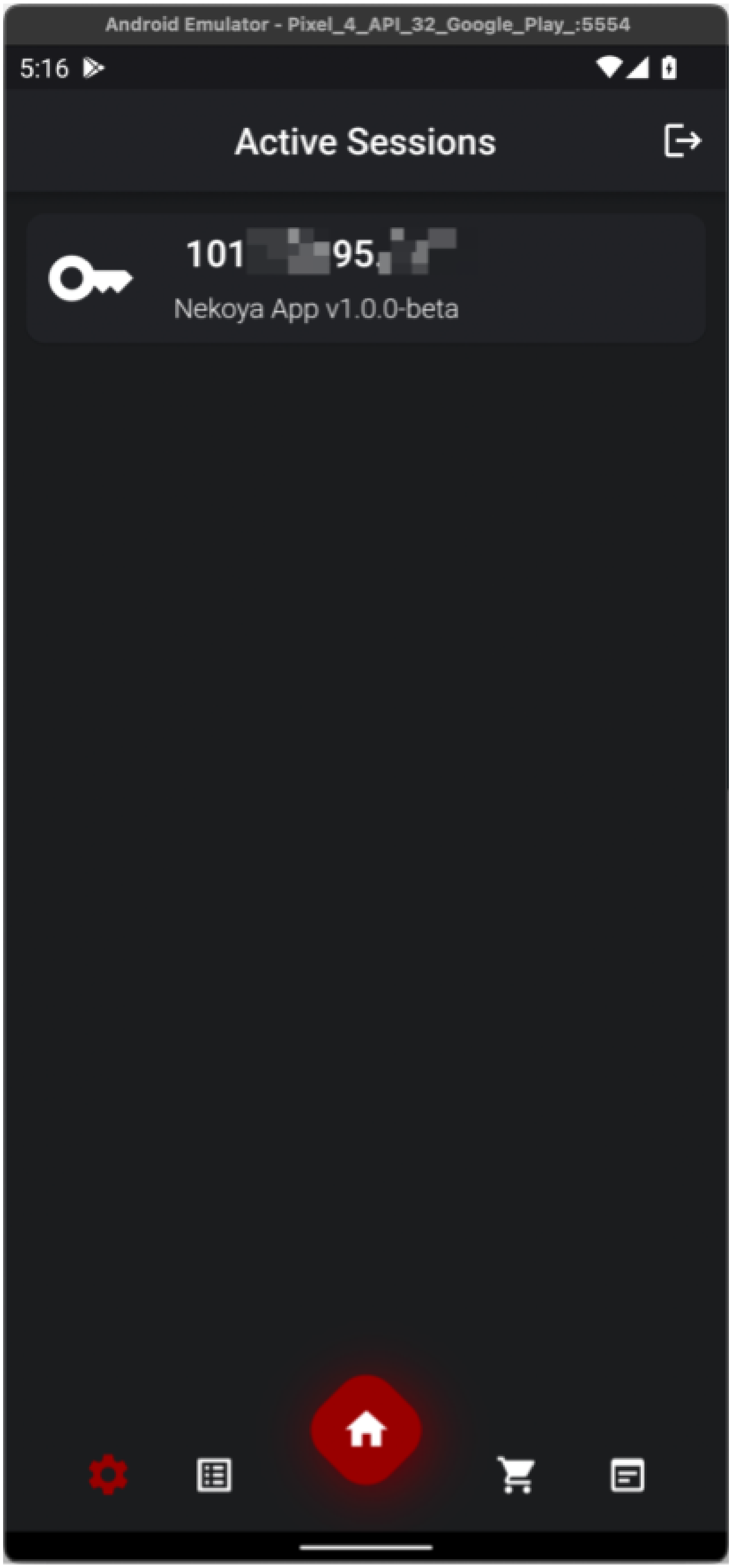
Logistic
SiCepat

Air Jordan 1 Mid SE
Quantity : 2

Adidas NMD_R1A (FX6794)
Quantity : 1

Total : Rp 5.800.000,00

Payment and Transactions Page



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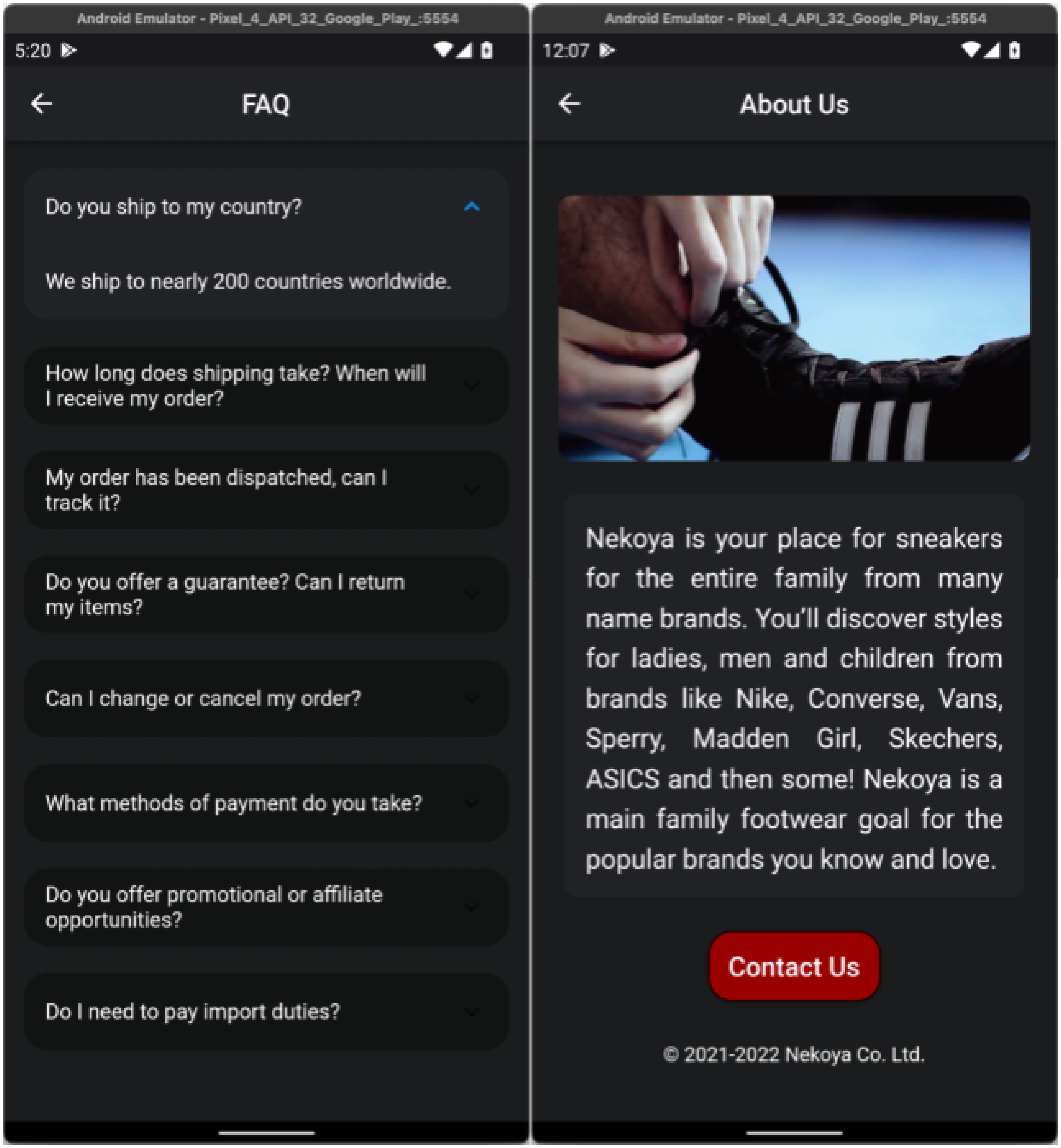
5:16

Active Sessions

101 [redacted] 95,[redacted]

Nekoya App v1.0.0-beta

Active Sessions Screen



Android Emulator - Pixel_4_API_32_Google_Play_:5554

5:20

FAQ

Do you ship to my country?

We ship to nearly 200 countries worldwide.

How long does shipping take? When will I receive my order?

My order has been dispatched, can I track it?

Do you offer a guarantee? Can I return my items?

Can I change or cancel my order?

What methods of payment do you take?

Do you offer promotional or affiliate opportunities?

Do I need to pay import duties?

Android Emulator - Pixel_4_API_32_Google_Play_:5554

12:07

About Us

Nekoya is your place for sneakers for the entire family from many name brands. You'll discover styles for ladies, men and children from brands like Nike, Converse, Vans, Sperry, Madden Girl, Skechers, ASICS and then some! Nekoya is a main family footwear goal for the popular brands you know and love.

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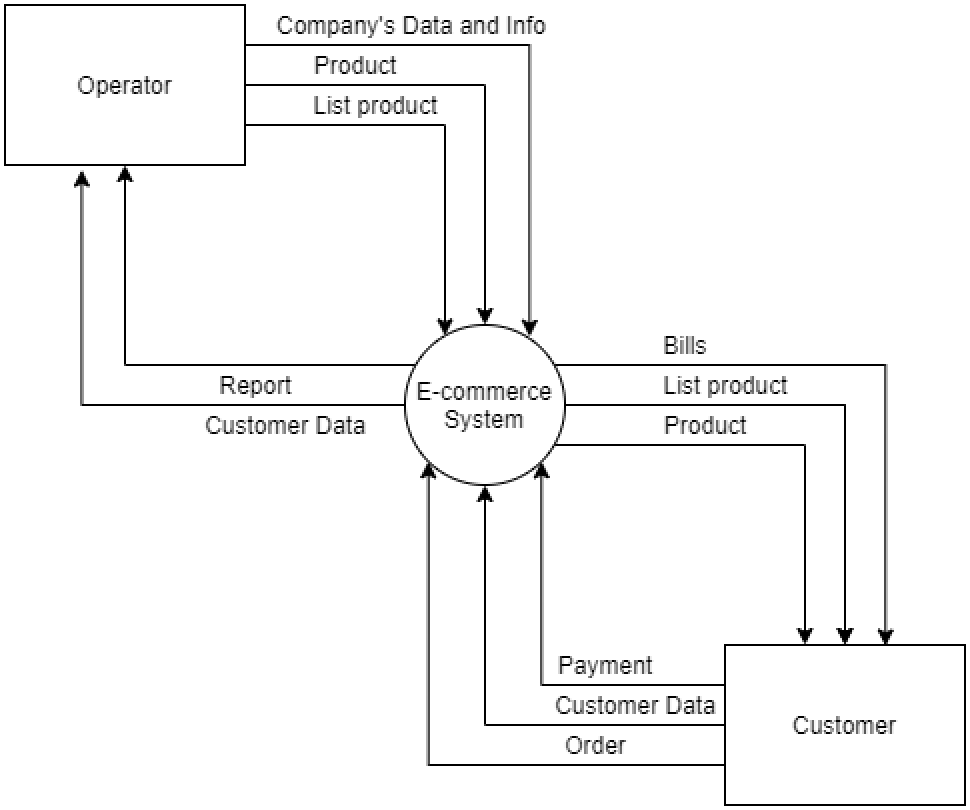
FAQ and About Us

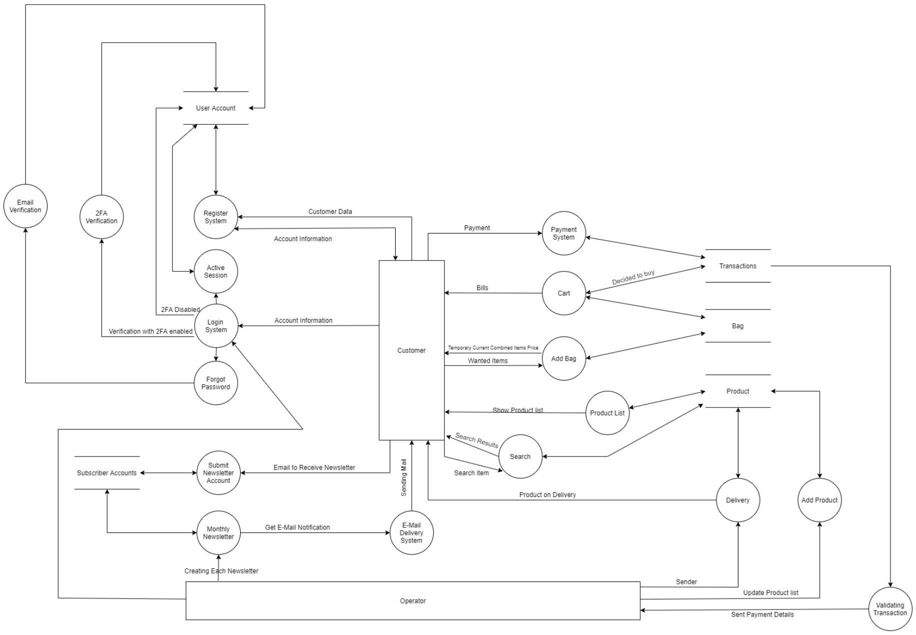
3.2 Functional Requirements

3.2.1 Context Diagram

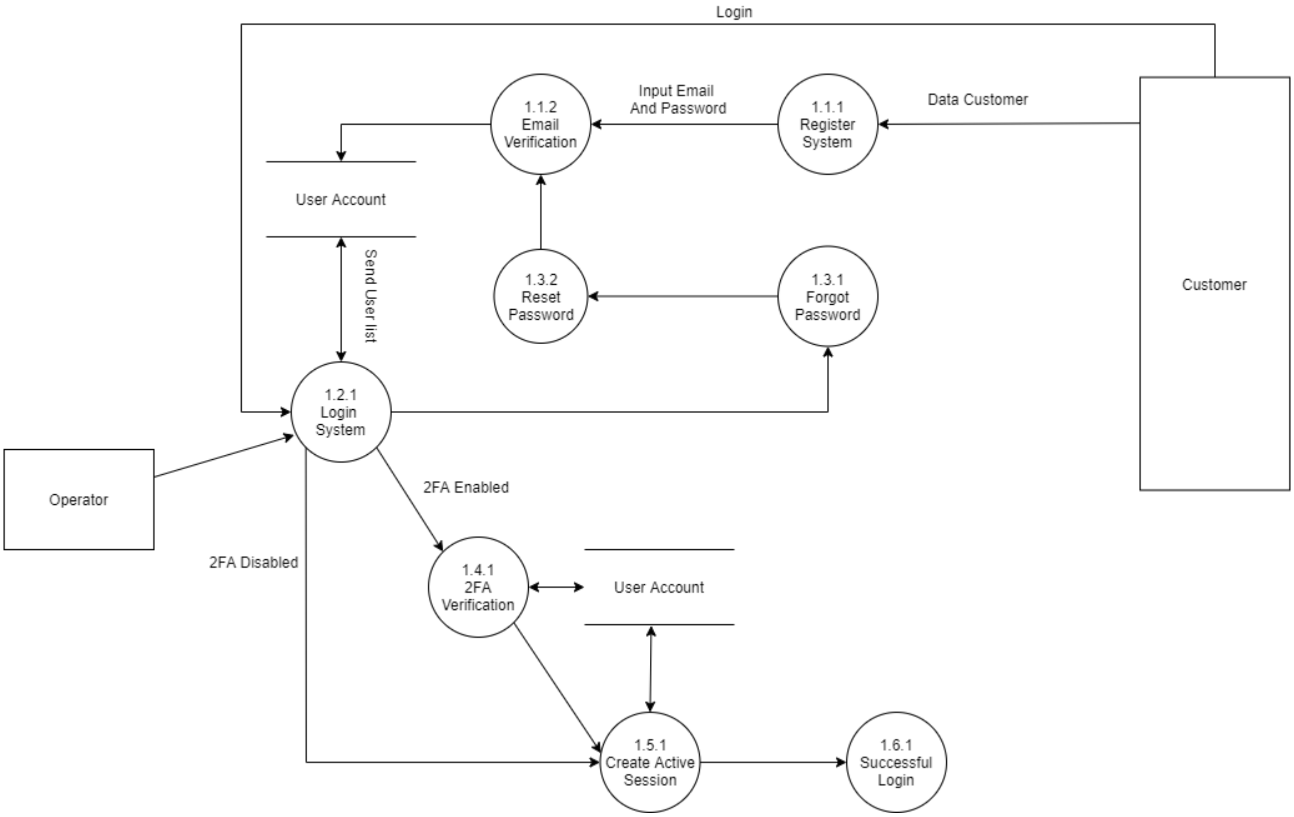


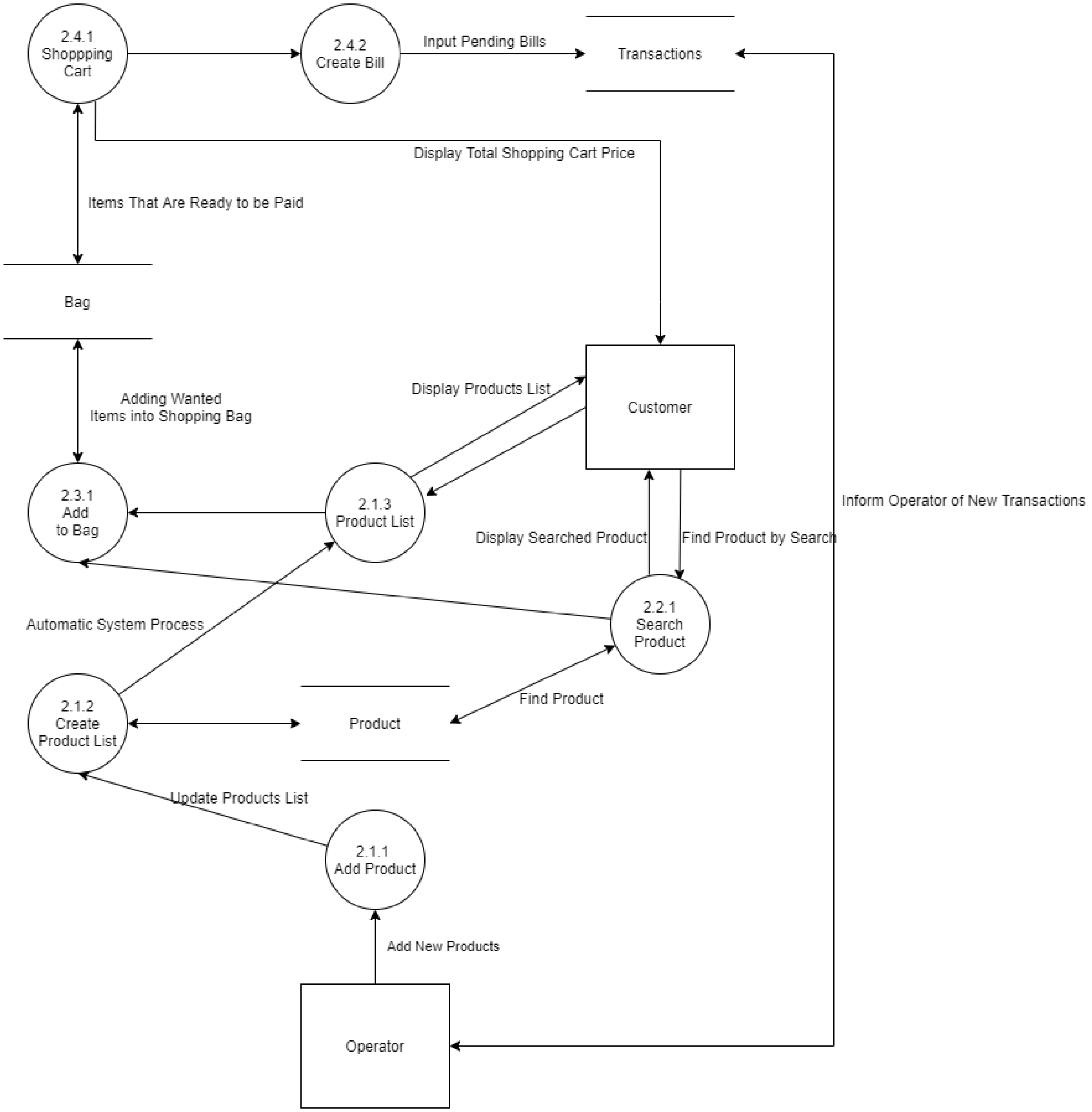
3.2.2 Data Flow Diagram

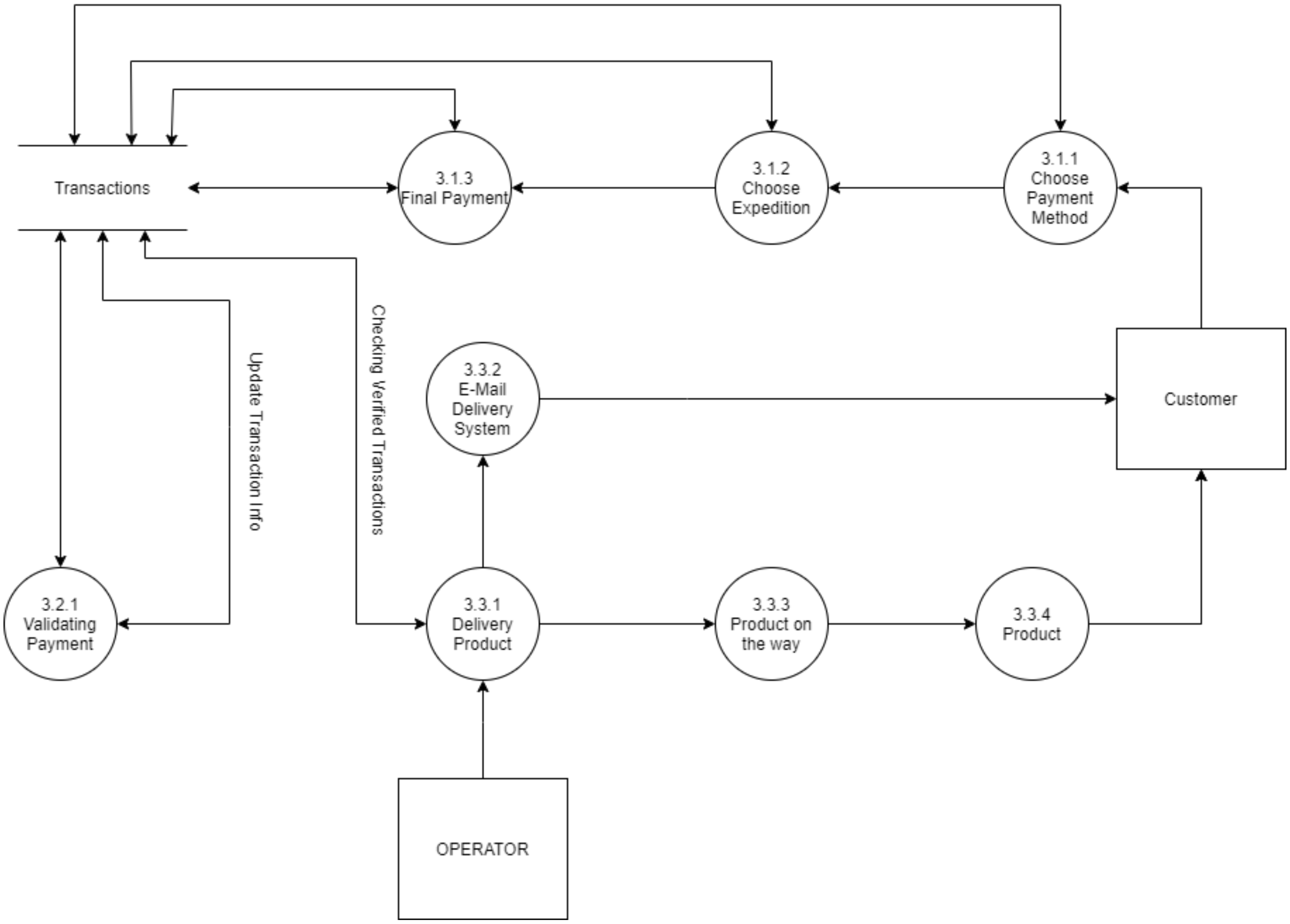
DFD Level 1

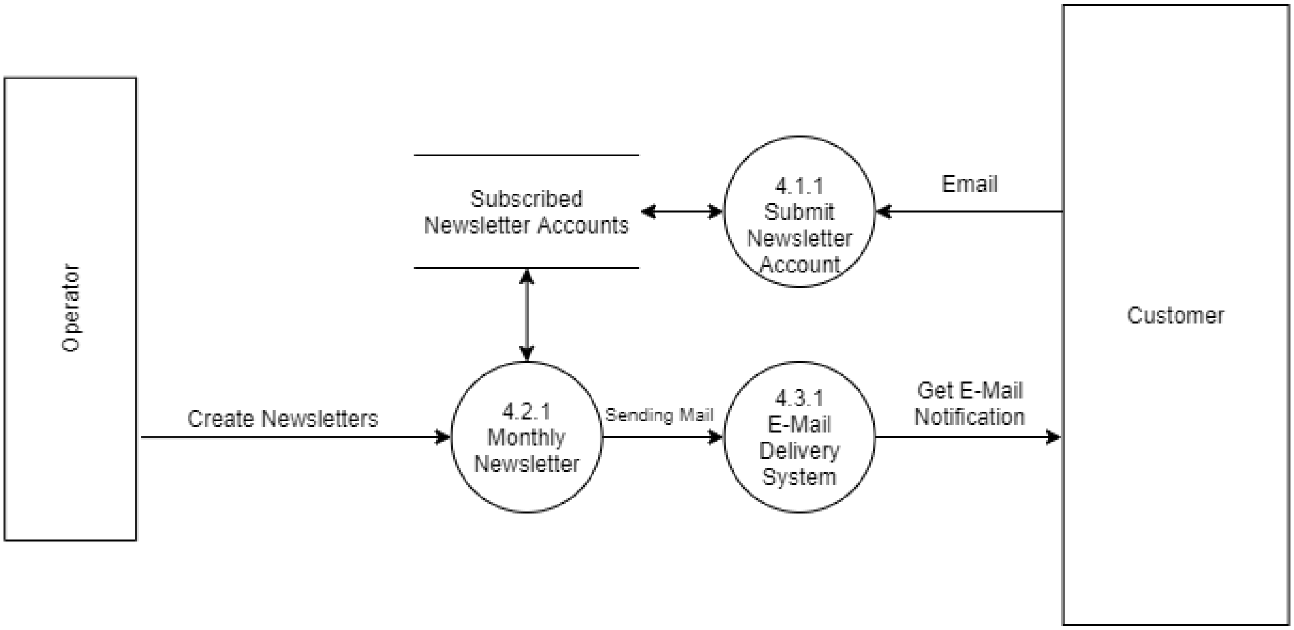


DFD Level 2

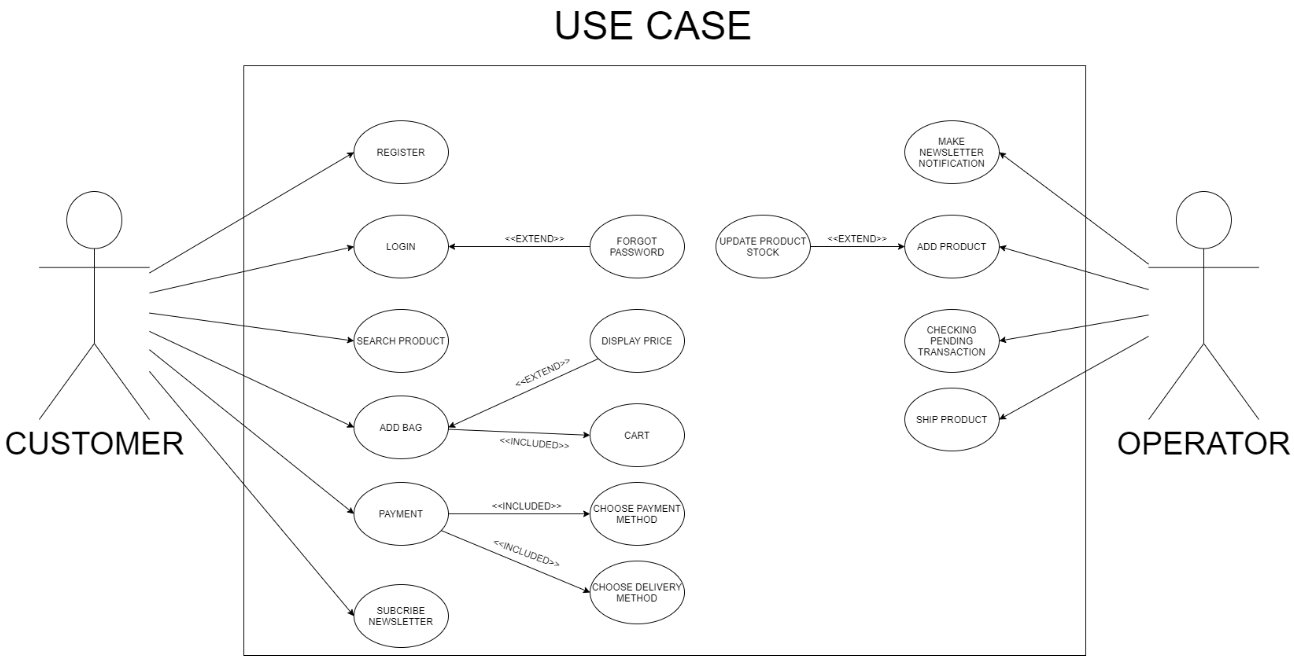

Login
1.1.2 Email Verification
Input Email And Password
1.1.1 Register System
Data Customer
User Account
Send User list
1.3.2 Reset Password
1.3.1 Forgot Password
Customer
1.2.1 Login System
Operator
2FA Enabled
2FA Disabled
1.4.1 2FA Verification
User Account
1.5.1 Create Active Session
1.6.1 Successful Login


2.4.1
Shoppping
Cart
2.4.2
Create Bill
Input Pending Bills
Transactions
Display Total Shopping Cart Price
Items That Are Ready to be Paid
Bag
Customer
Display Products List
Adding Wanted
Items into Shopping Bag
2.3.1
Add
to Bag
2.1.3
Product List
Inform Operator of New Transactions
Display Searched Product
Find Product by Search
2.2.1
Search
Product
Automatic System Process
Find Product
2.1.2
Create
Product List
Product
Update Products List
2.1.1
Add Product
Add New Products
Operator

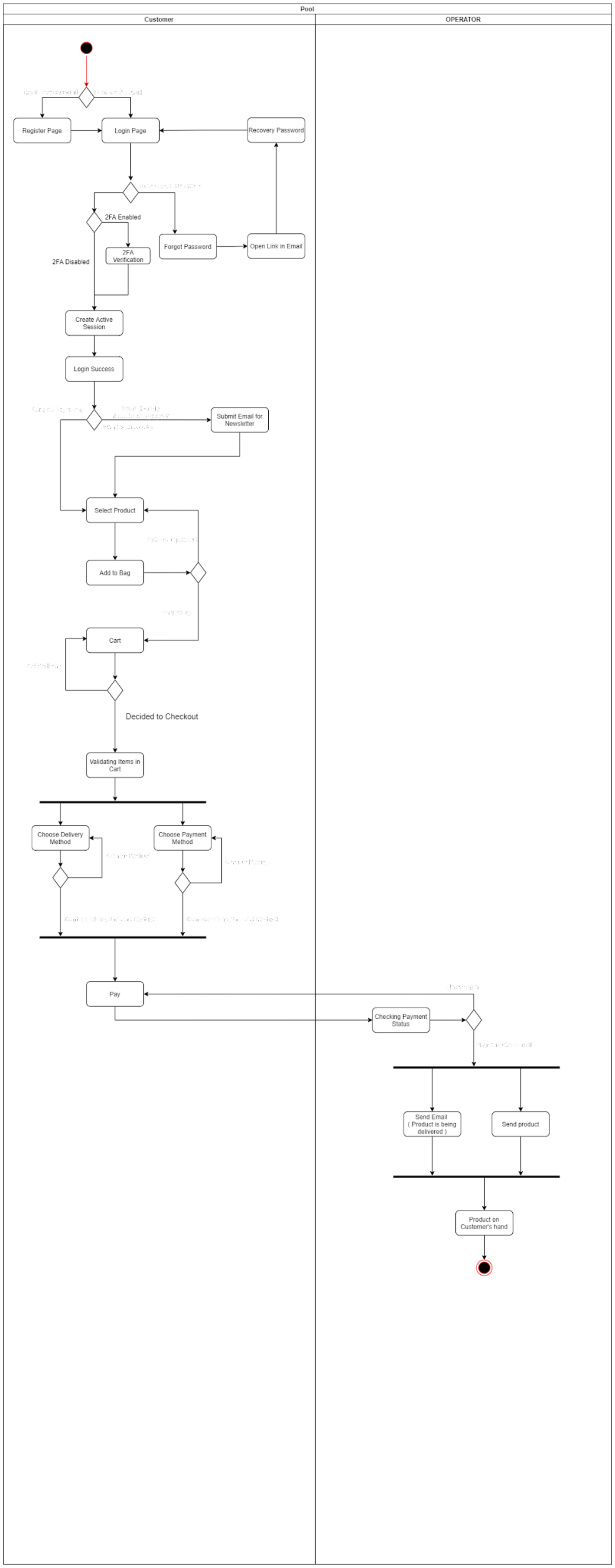

Transactions
3.1.3
Final Payment
3.1.2
Choose
Expedition
3.1.1
Choose
Payment
Method
Checking Verified Transactions
Update Transaction Info
3.3.2
E-Mail
Delivery
System
Customer
3.2.1
Validating
Payment
3.3.1
Delivery
Product
3.3.3
Product on
the way
3.3.4
Product
OPERATOR


Operator
Subscribed
Newsletter Accounts
4.1.1
Submit
Newsletter
Account
Email
Customer
Create Newsletters
4.2.1
Monthly
Newsletter
Sending Mail
4.3.1
E-Mail
Delivery
System
Get E-Mail
Notification

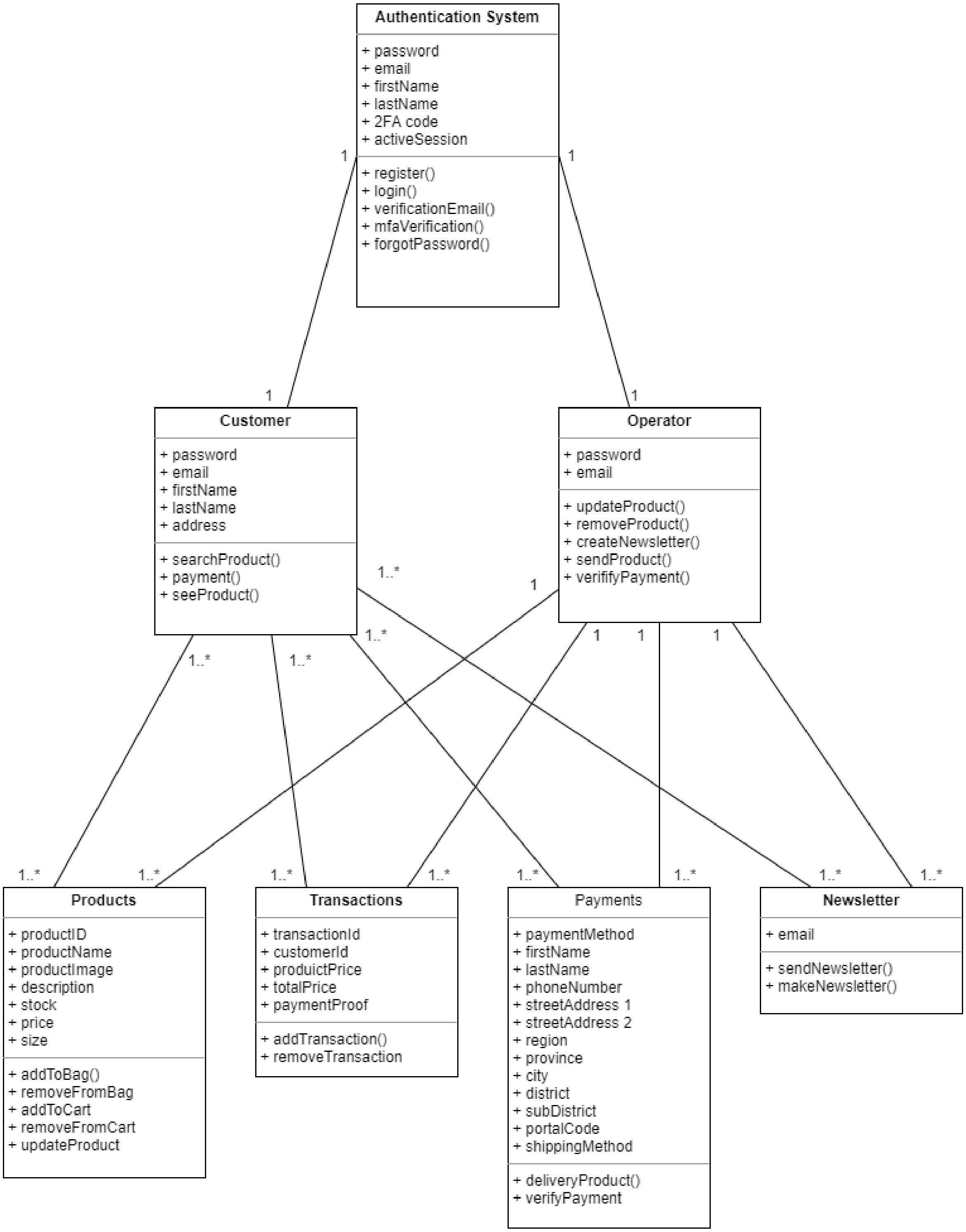
3.2.3 Use Case



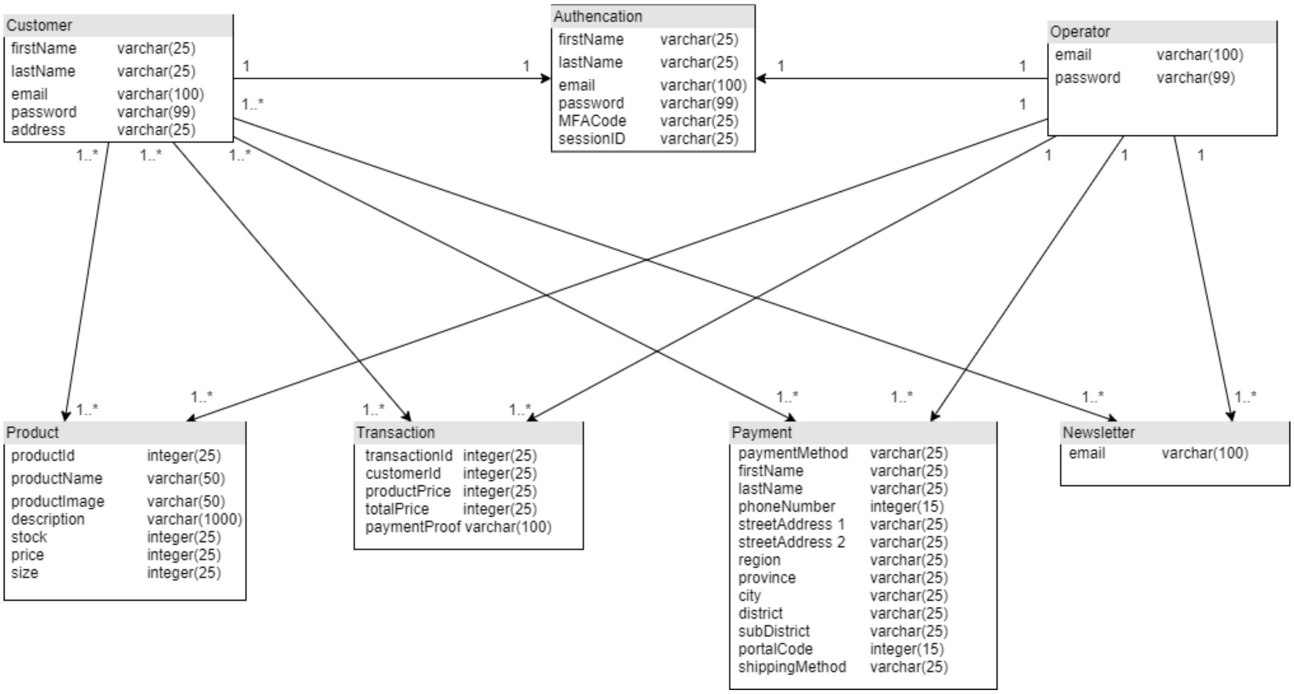
3.2.4 Activity Diagram Swimlane


Pool
Customer
OPERATOR
Have an Account
Register Page
Login Page
Recovery Password
Forgot your Password
2FA Enabled
2FA Verification
2FA Disabled
Forgot Password
Open Link in Email
Create Active Session
Login Success
Submit Email for Newsletter
Select Product
Add to Bag
Cart
Decided to Checkout
Validating Items in Cart
Choose Delivery Method
Choose Payment Method
Pay
Checking Payment Status
Payment Confirmed
Send Email (Product is being delivered)
Send product
Product on Customer's hand

3.2.5 Class Diagram



3.2.6 Entity Relationship Diagram



Customer	
firstName	varchar(25)
lastName	varchar(25)
email	varchar(100)
password	varchar(99)
address	varchar(25)

Authencation	
firstName	varchar(25)
lastName	varchar(25)
email	varchar(100)
password	varchar(99)
MFACode	varchar(25)
sessionID	varchar(25)

Operator	
email	varchar(100)
password	varchar(99)

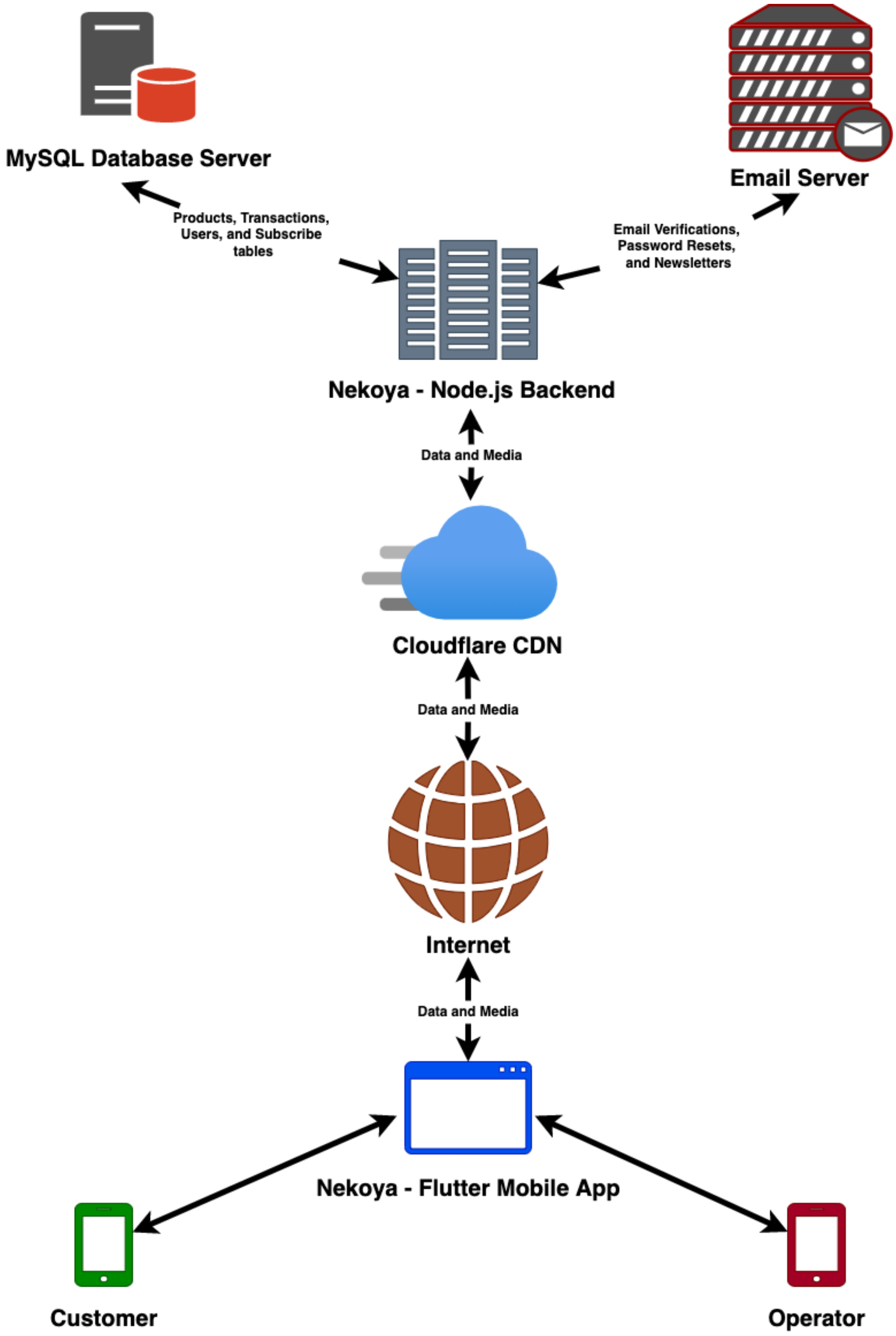
Product	
productId	integer(25)
productName	varchar(50)
productImage	varchar(50)
description	varchar(1000)
stock	integer(25)
price	integer(25)
size	integer(25)

Transaction	
transactionId	integer(25)
customerId	integer(25)
productPrice	integer(25)
totalPrice	integer(25)
paymentProof	varchar(100)

Payment	
paymentMethod	varchar(25)
firstName	varchar(25)
lastName	varchar(25)
phoneNumber	integer(15)
streetAddress 1	varchar(25)
streetAddress 2	varchar(25)
region	varchar(25)
province	varchar(25)
city	varchar(25)
district	varchar(25)
subDistrict	varchar(25)
portalCode	integer(15)
shippingMethod	varchar(25)

Newsletter	
email	varchar(100)

3.2.7 System Overview



3.2.8 Sequence Diagram

Diagram Sequence Register

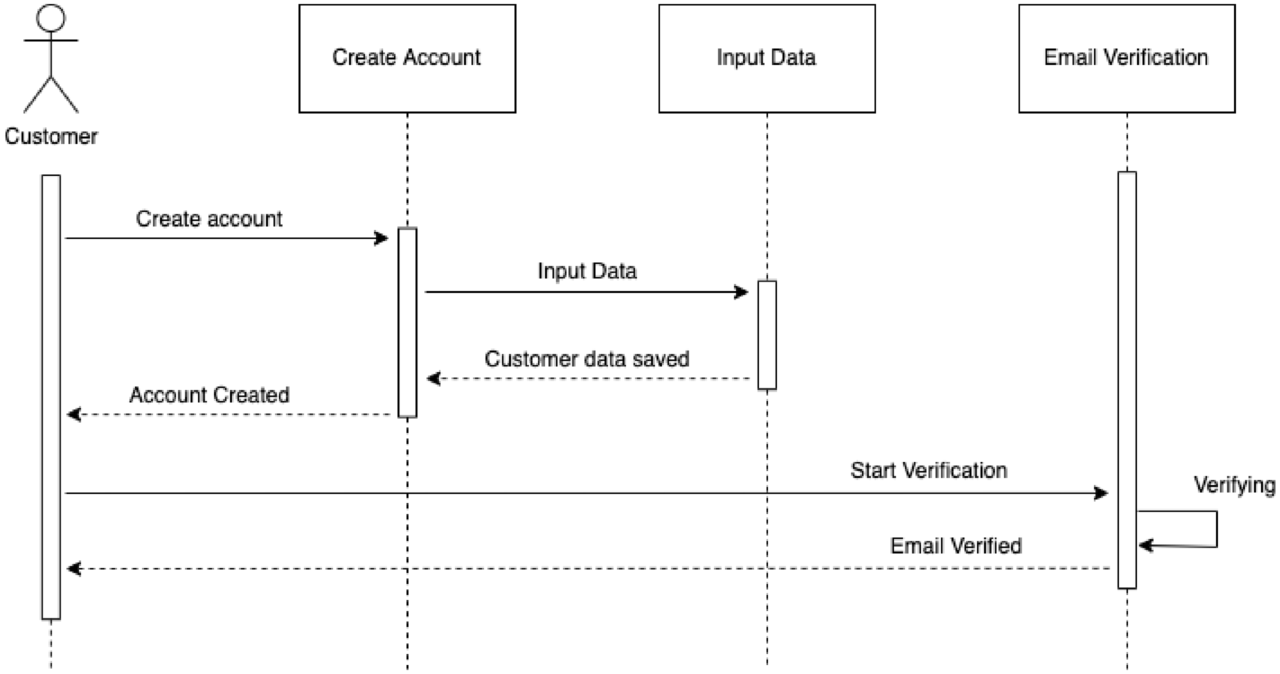


Diagram Sequence Purchase

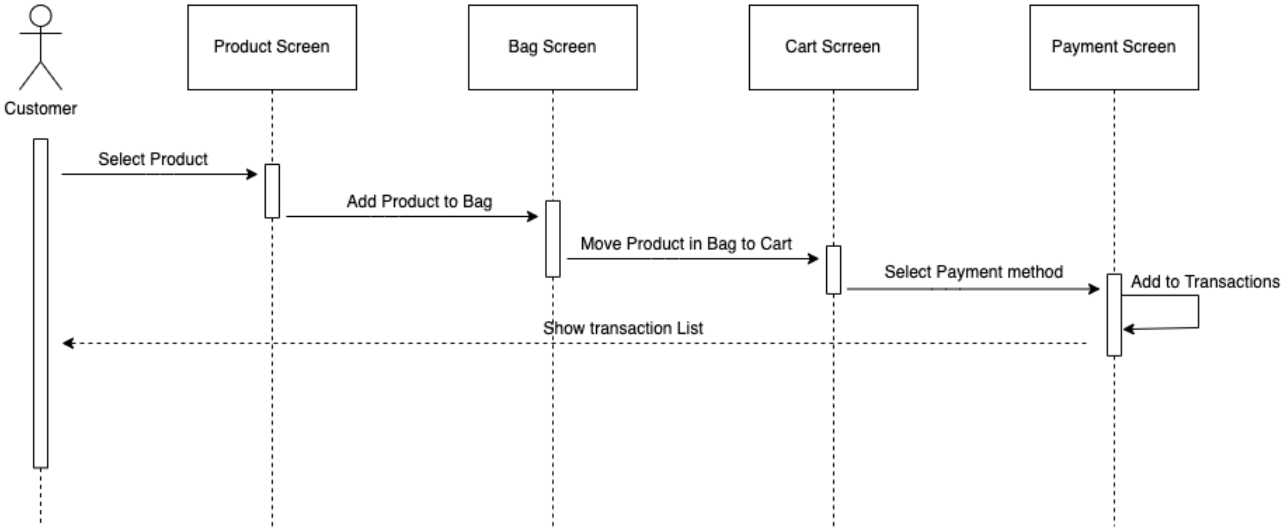


Diagram Sequence Subscription Newsletter

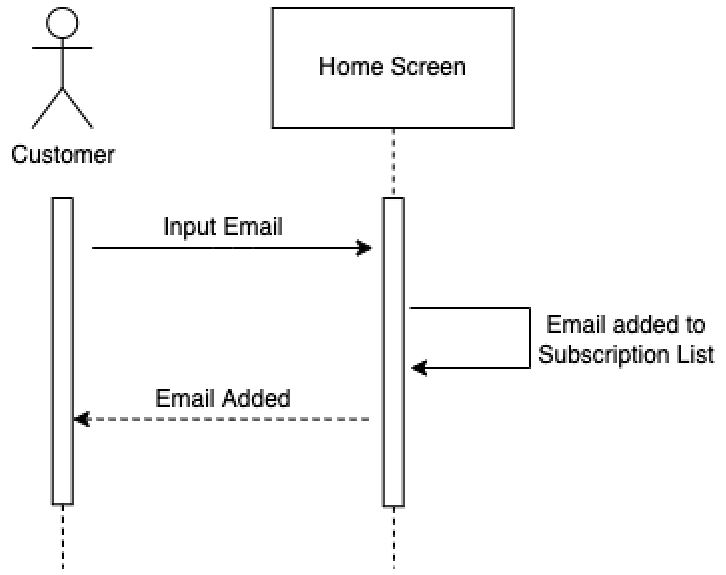
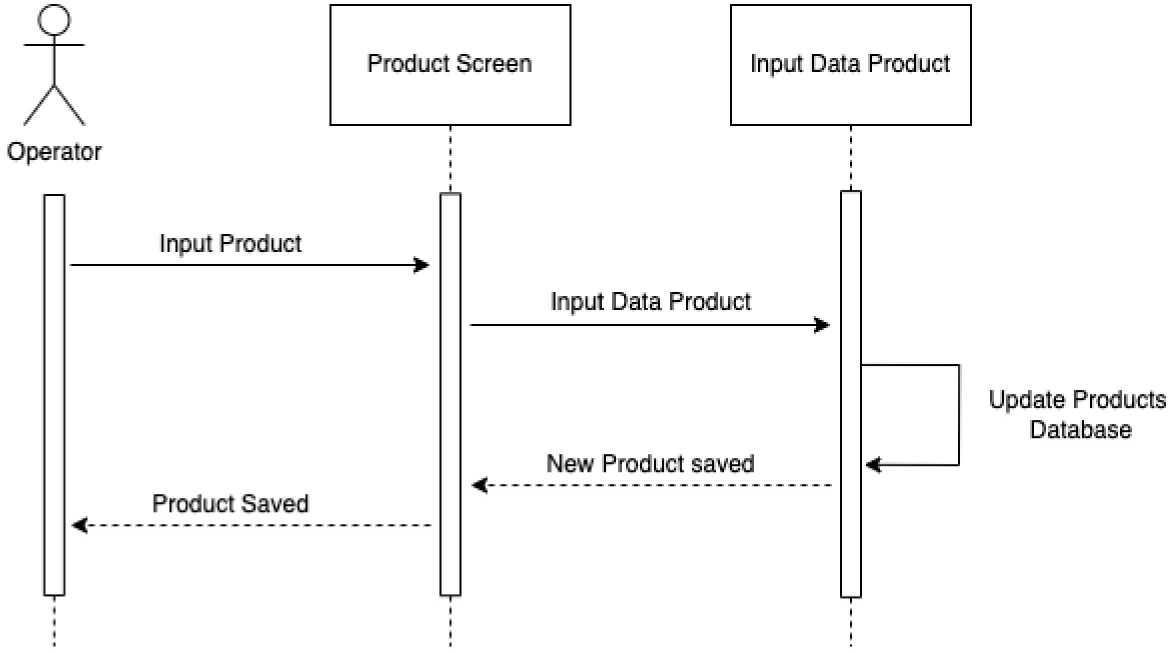


Diagram Sequence Update Product by Operator



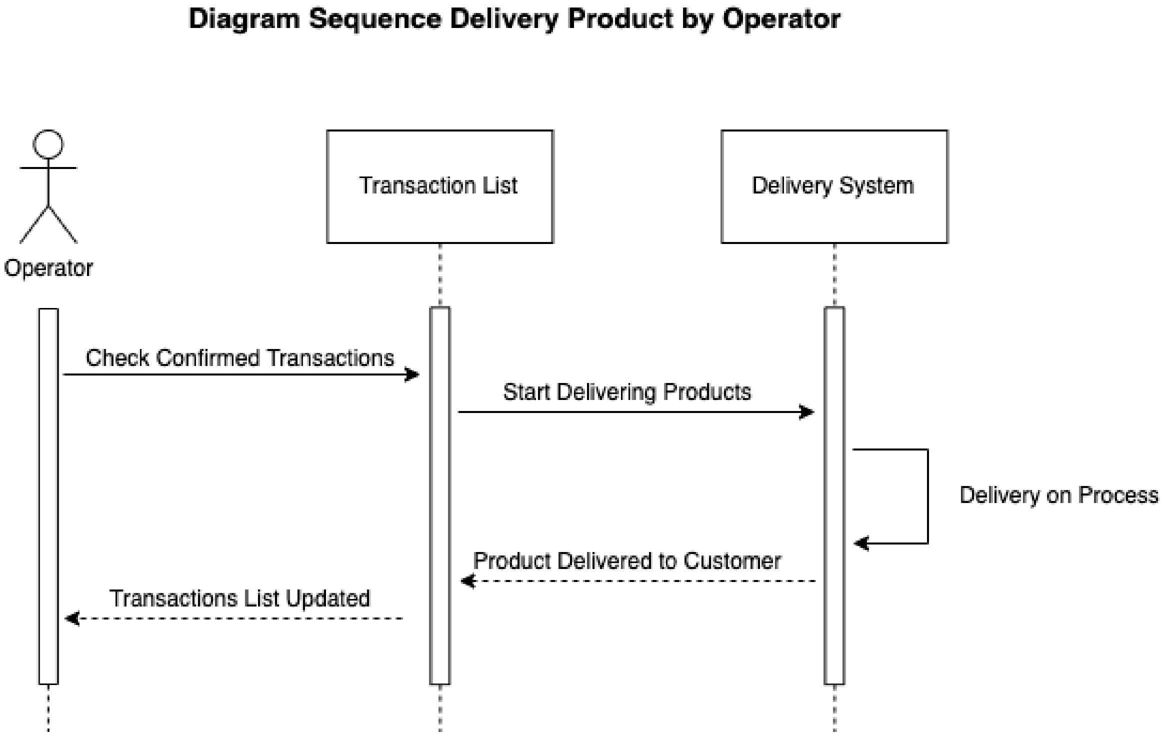


Diagram Sequence Delivery Product by Operator
Operator
Transaction List
Delivery System
Check Confirmed Transactions
Start Delivering Products
Delivery on Process
Product Delivered to Customer
Transactions List Updated

Diagram Sequence Reset Password

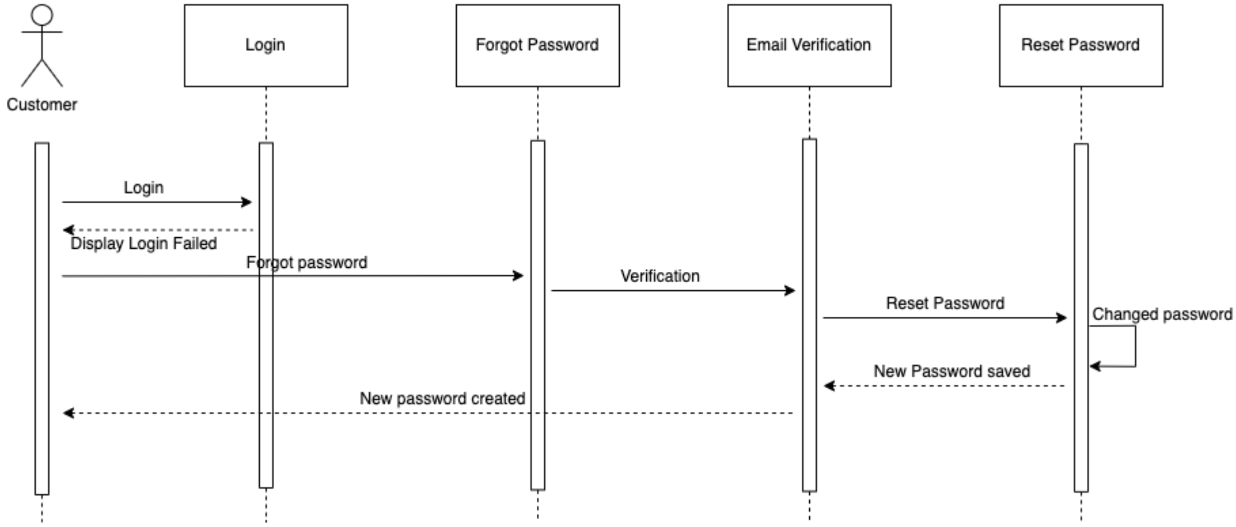


Diagram Sequence Login

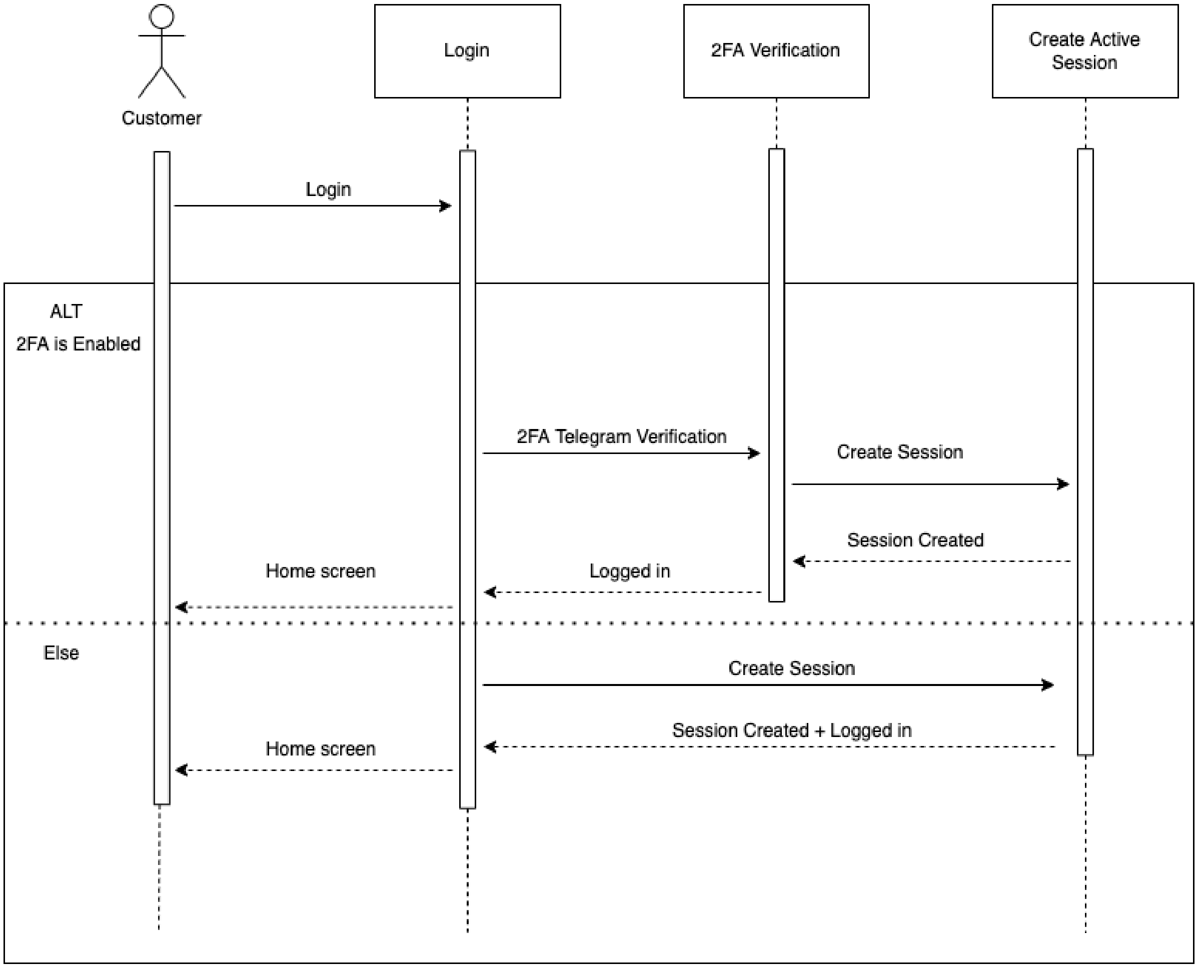
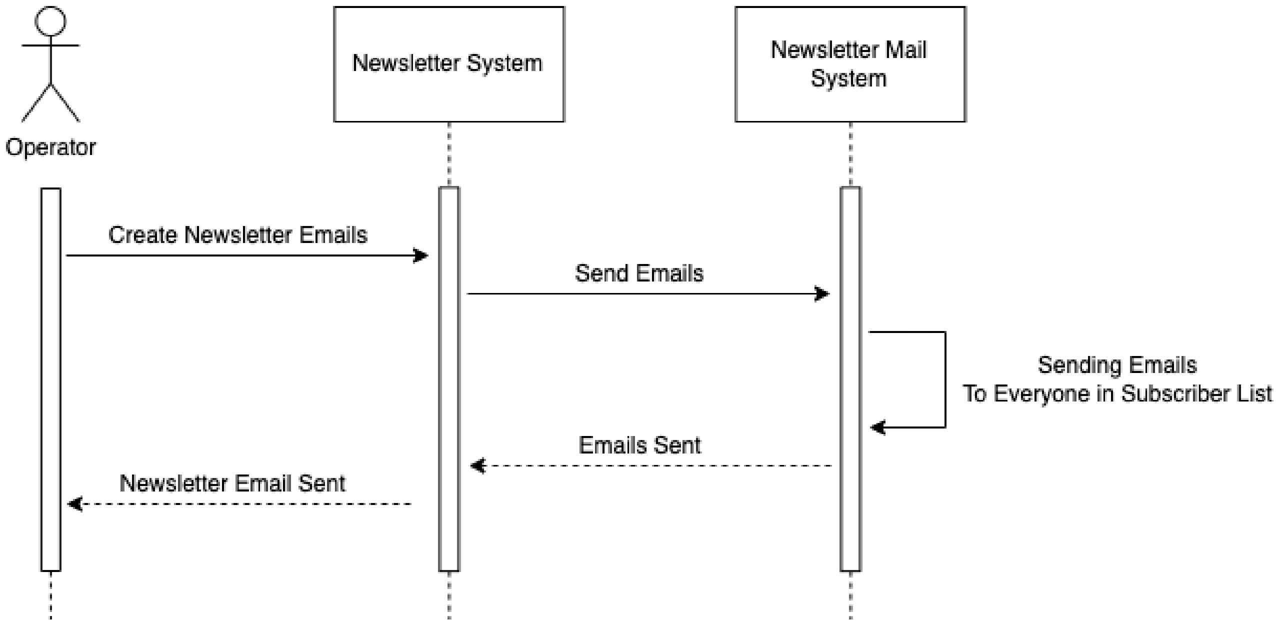


Diagram Sequence Newsletter by Operator



3.3 Performance Requirement

Performance-wise, the system needs to be responsive enough. This means delay shouldn’t take much more than 2-5 seconds or so. Security-wise, it needs to be able to keep users' passwords in an encrypted format to increase security. Reliability-wise, it needs to be up 99% of the time. The maximum downtime allowed per day is 10 minutes combined throughout the day.

4 Additional Information

Backend GitHub Repository	= https://github.com/Nekoya-Site/Web
Frontend GitHub Repository	= https://github.com/Nekoya-Site/App
API Documentation	= https://docs.nekoya.moe.team/