

# Table Design

## 1. Users Table

This table will store basic information for both farmers and regular users.

Column Name	Data Type	Description
user_id	INT	Primary key, Auto Increment
email	VARCHAR(250)	Unique, User's email for login
password_hash	VARCHAR(250)	Hashed password
role	ENUM ('farmer', 'buyer')	User role type
created_at	TIMESTAMP	Account creation timestamp
updated_at	TIMESTAMP	Last update timestamp

## 2. User Details Table

This table will store additional details for users.

Column Name	Data Type	Description
userdetails_id	INT	Primary key, Auto Increment
user_id	INT	Foreign Key to Users table
name	VARCHAR(250)	Full name of the user
address	TEXT	Address
mobile_number	VARCHAR (15)	Mobile Number
location	VARCHAR (250)	Location
aadhar_number	VARCHAR (12)	Aadhar number
bank_name	VARCHAR (250)	Bank name
account_number	VARCHAR (20)	Bank account number
ifsc_code	VARCHAR(11)	IFSC code

profile_photo	VARCHAR (250)	URL to the profile photo
delivery_address	TEXT	Delivery address (for buyers)

### 3. Rambutan Varieties Table

This table will store information about different rambutan varieties.

Column Name	Data Type	Description
variety_id	INT	Primary Key, Auto Increment
name	VARCHAR (250)	Name of the rambutan variety
description	TEXT	Description of the variety

### 4. Farmer Trees Table

This table will store information about the rambutan trees owned by farmers.

Column Name	Data Type	Description
tree_id	INT	Primary Key, Auto Increment
user_id	INT	Foreign Key to Users table (farmer)
variety_id	INT	Foreign Key to Rambutan Varieties table
total_count	INT	Total number of trees
expected_amount	DECIMAL (10,2)	Expected amount for the produce
tree_images	TEXT	URLs of the tree images

### 5. Products Table

This table will store information about different rambutan-based products.

Column Name	Data Type	Description
product_id	INT	Primary Key, Auto Increment
name	VARCHAR (250)	Name of the product
description	TEXT	Description of the product
price_per_unit	DECIMAL (10,2)	Price per unit
stock_quantity	INT	Quantity available in stock
image_url	VARCHAR (250)	URL to the product image

## 6. Transactions Table

This table will record transactions for purchasing rambutan or products.

Column Name	Data Type	Description
transaction_id	INT	Primary Key, Auto Increment
user_id	INT	Foreign Key to Users table (buyer)
farmer_id	INT	Foreign Key to Users table(farmer)
product_id	INT	Foreign Key to Products table
variety_id	INT	Foreign Key to Rambutan Varieties table
quantity	DECIMAL (10,2)	Quantity of rambutan/product
total_amount	DECIMAL (10,2)	Total amount paid
transaction_date	TIMESTAMP	Date and time of the transaction
status	ENUM ('pending', 'completed', 'cancelled')	Status of the transaction

## 7. Bids Table

This table will store bidding information from buyers.

Column Name	Data Type	Description
bid_id	INT	Primary Key, Auto Increment
user_id	INT	Foreign Key to Users table (buyer)
farmer_id	INT	Foreign Key to Users table(farmer)
variety_id	INT	Foreign Key to Rambutan Varieties table
bid_amount	DECIMAL (10,2)	Amount of the bid
bid_date	TIMESTAMP	Date and time of the bid
status	ENUM ('pending', 'accepted', 'rejected')	Status of the bid

## 8. Orders Table

This table helps manage and track the entire order process, from creation to fulfillment and payment.

Column Name	Data Type	Description
order_id	INT	Primary Key, Auto Increment
user_id	INT	Foreign Key to Users table (buyer)
order_date	TIMESTAMP	Date and time when the order was placed
total_amount	DECIMAL(10,2)	Total amount for the order
payment_status	ENUM ('pending', 'completed', 'failed', 'refunded')	Status of the payment
order_status	ENUM ('processing', 'shipped', 'delivered', 'cancelled')	Status of the order fulfillment
shipping_id	INT	Foreign Key to Shipping Information table
payment_method	VARCHAR(250)	Method used for payment (e.g., credit card, PayPal)

## 9. Shipping Information Table

This table will store shipping details for the orders.

Column Name	Data Type	Description
shipping_id	INT	Primary Key, Auto Increment
order_id	INT	Foreign Key to Orders table
user_id	INT	Foreign Key to Users table (buyer)
address	TEXT	Shipping address
delivery_date	TIMESTAMP	Estimated delivery date
shipping_status	ENUM('pending', 'shipped', 'delivered', 'returned')	Status of the shipping

## 10. Payment Details Table

This table will handle all the payment-related information for transactions.

Column Name	Data Type	Description
payment_id	INT	Primary Key, Auto Increment
order_id	INT	Foreign Key to Orders table
user_id	INT	Foreign Key to Users table
payment_method	VARCHAR (50)	Method of payment (e.g., Credit Card, PayPal)
payment_status	ENUM ('pending', 'completed', 'failed', 'refunded')	Status of payment
transaction_id	VARCHAR (250)	Transaction identifier from payment gateway
payment_date	TIMESTAMP	Date and time of the payment

## 11. Feedback Table

This table stores feedback or reviews from users about products or the overall service.

Column Name	Data Type	Description
feedback_id	INT	Primary Key, Auto Increment
user_id	INT	Foreign Key to Users table
product_id	INT	Foreign Key to Products table
rating	INT	Rating given by the user (1-5 scale)
comments	TEXT	Detailed feedback or comments
created_at	TIMESTAMP	Feedback submission timestamp

## 12. Notification Table

This table stores notifications sent to users (such as order status updates, bids accepted, etc.).

Column Name	Data Type	Description
notification_id	INT	Primary Key, Auto Increment
user_id	INT	Foreign Key to Users table
message	TEXT	Notification message
read_status	BOOLEAN	Whether the notification has been read
created_at	TIMESTAMP	Notification creation timestamp

## 13. Wishlist Table

Stores products that users have marked as favorites or wish to purchase in the future.

Column Name	Data Type	Description
wishlist_id	INT	Primary Key, Auto Increment
user_id	INT	Foreign Key to Users table
product_id	INT	Foreign Key to Products table
created_at	TIMESTAMP	Timestamp when the product was added to the wishlist

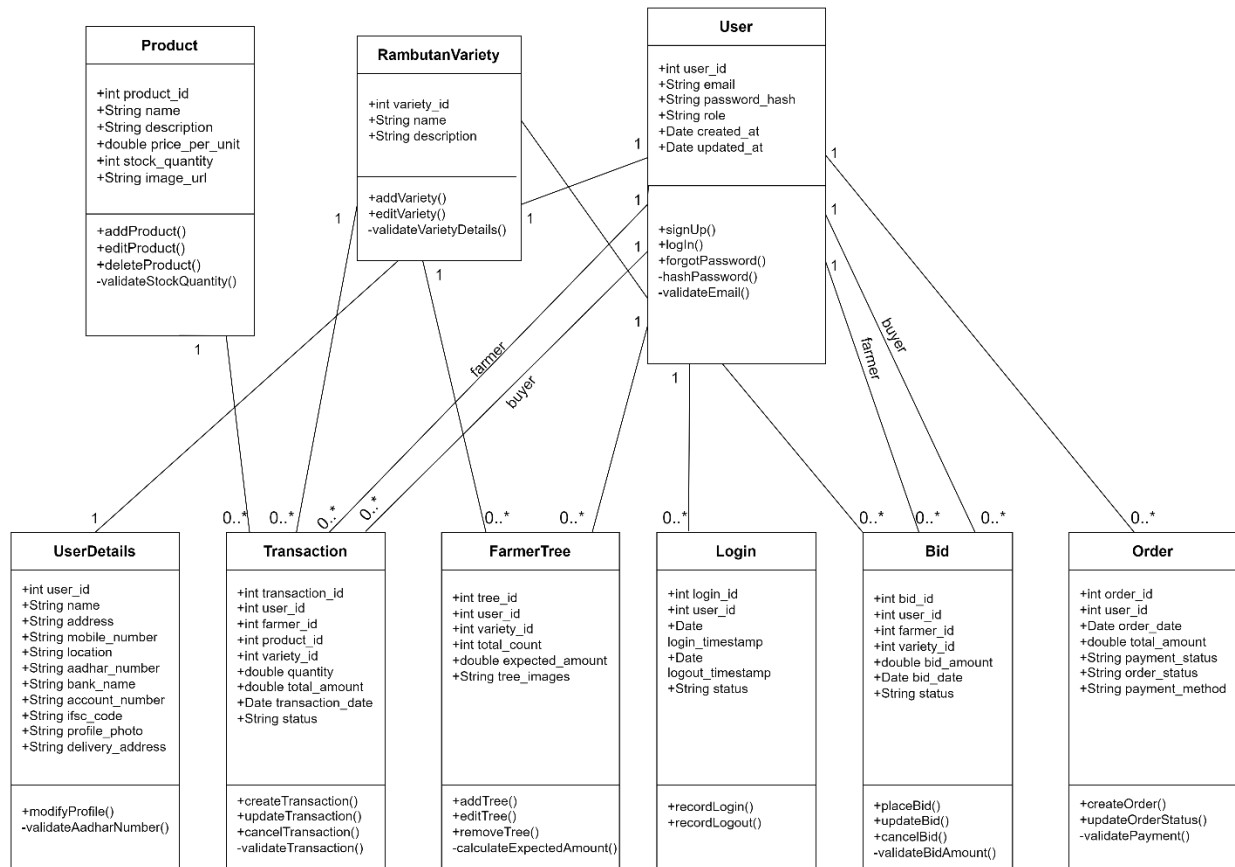
## 14. Discounts and Offers Table

Manages any discounts or promotional offers available on the platform.

Column Name	Data Type	Description
offer_id	INT	Primary Key, Auto Increment
product_id	INT	Foreign Key to Products table
discount_type	ENUM ('flat', 'percentage')	Type of discount
discount_value	DECIMAL (10,2)	Value of the discount (amount or percentage)
start_date	TIMESTAMP	Offer start date
end_date	TIMESTAMP	Offer end date

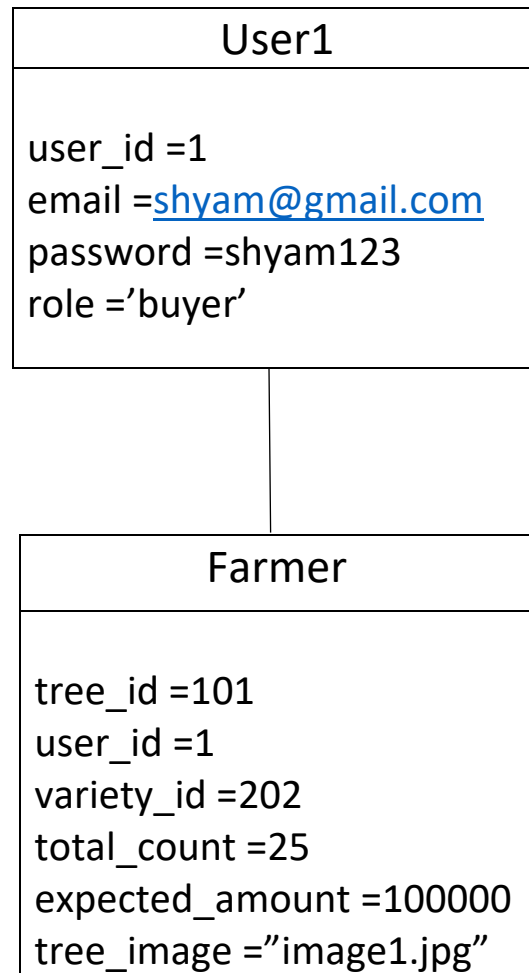
# UML Designs

## 1. Class diagram

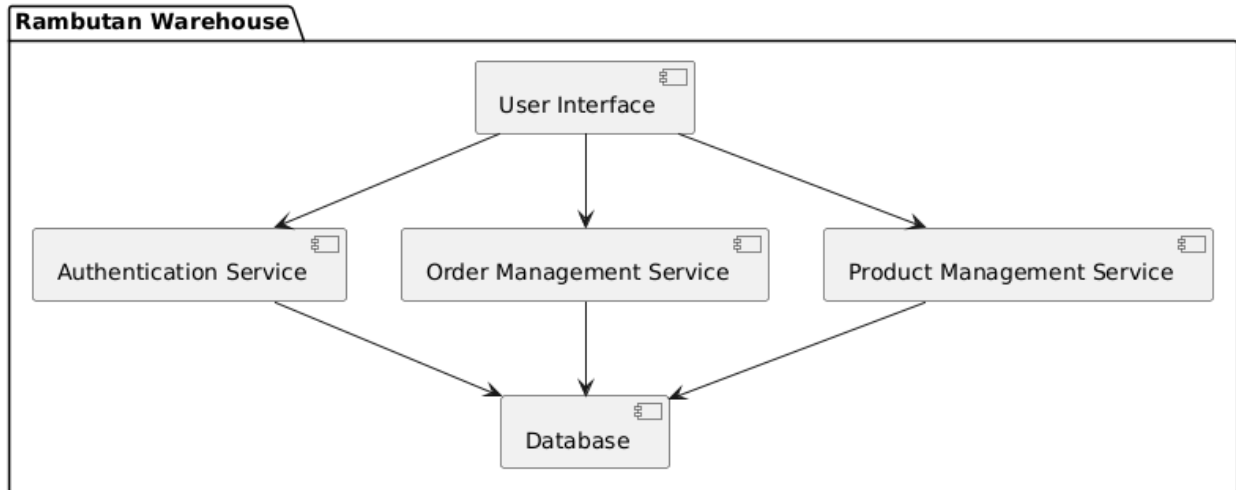




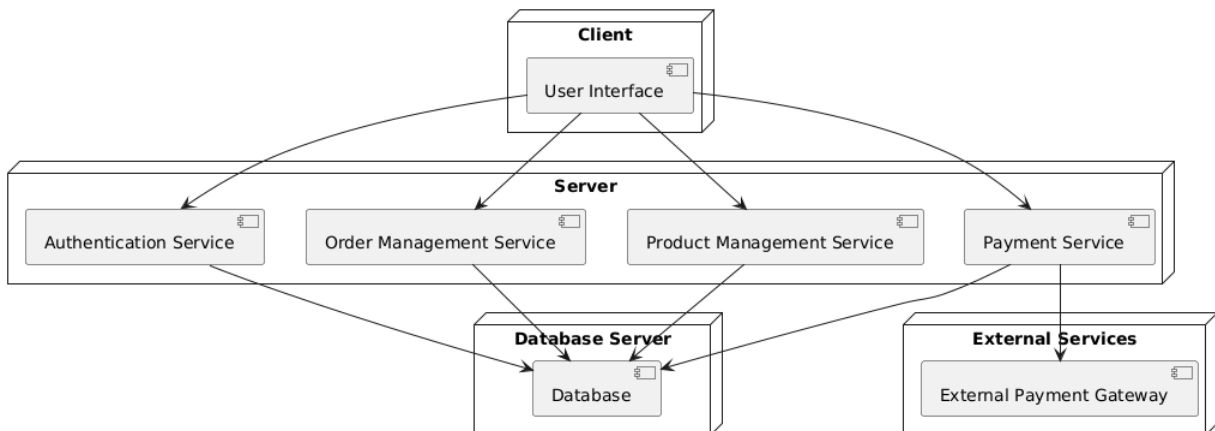
## 2.Object Diagram



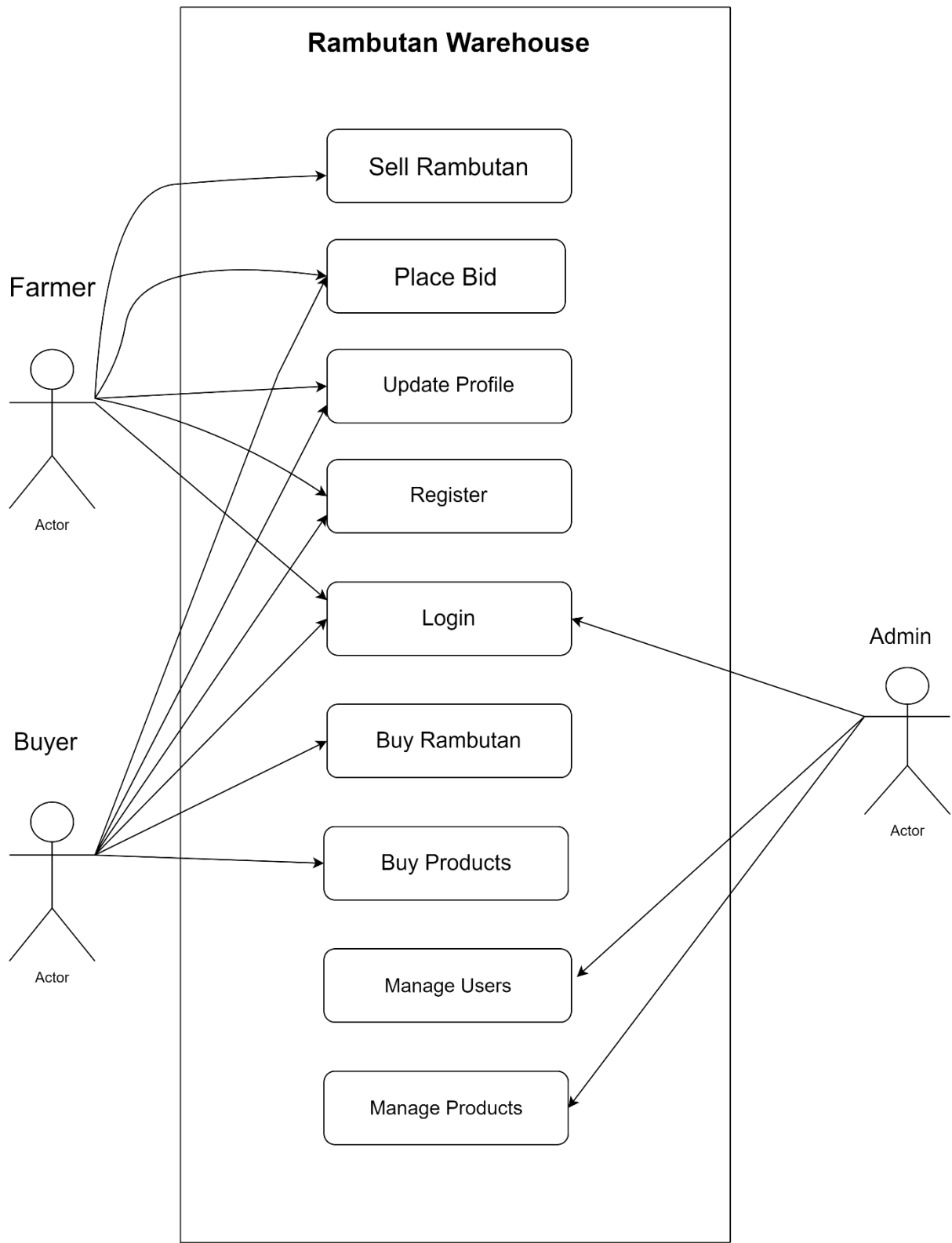
### 3.Component Diagram



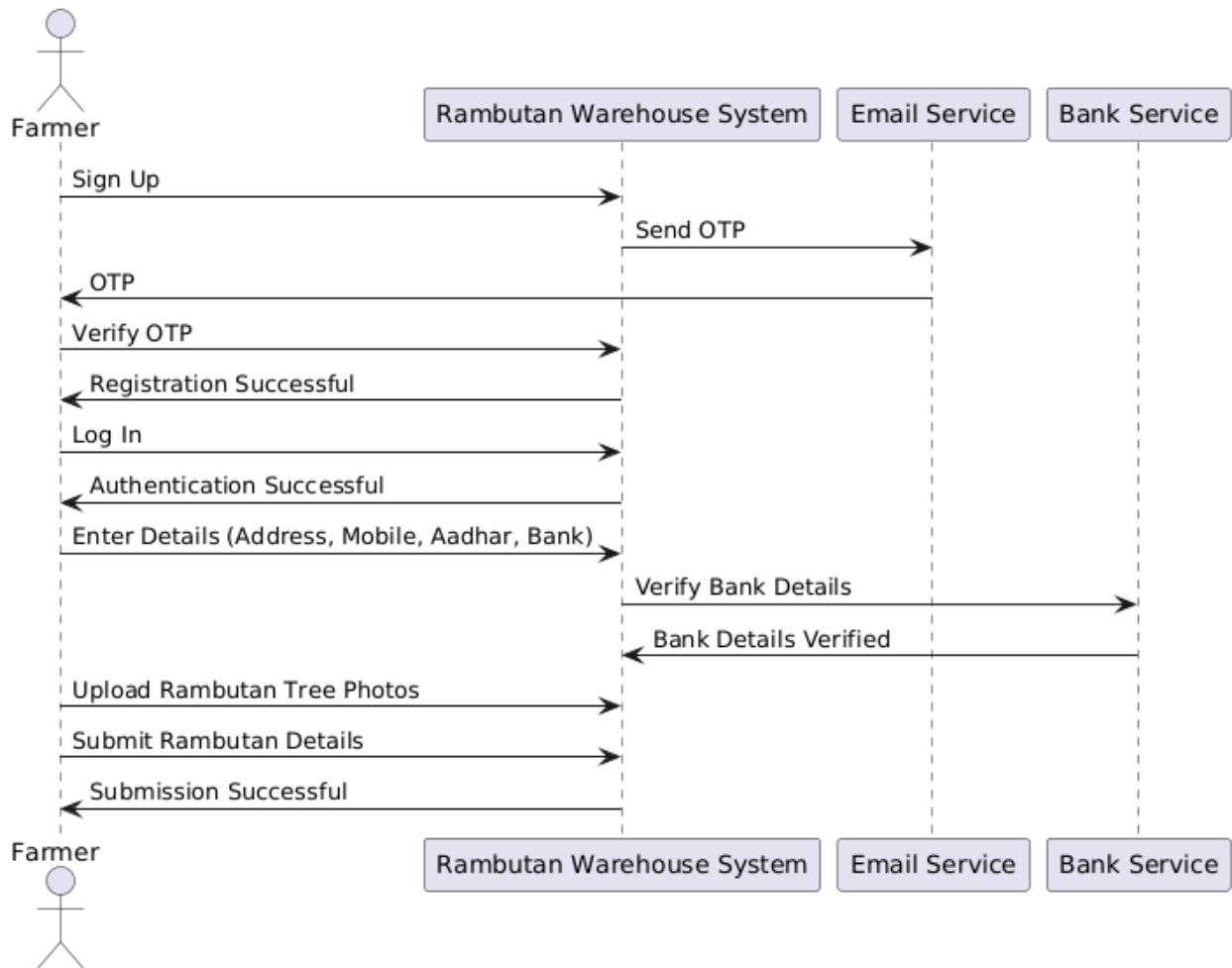
### 4.Deployment Diagram



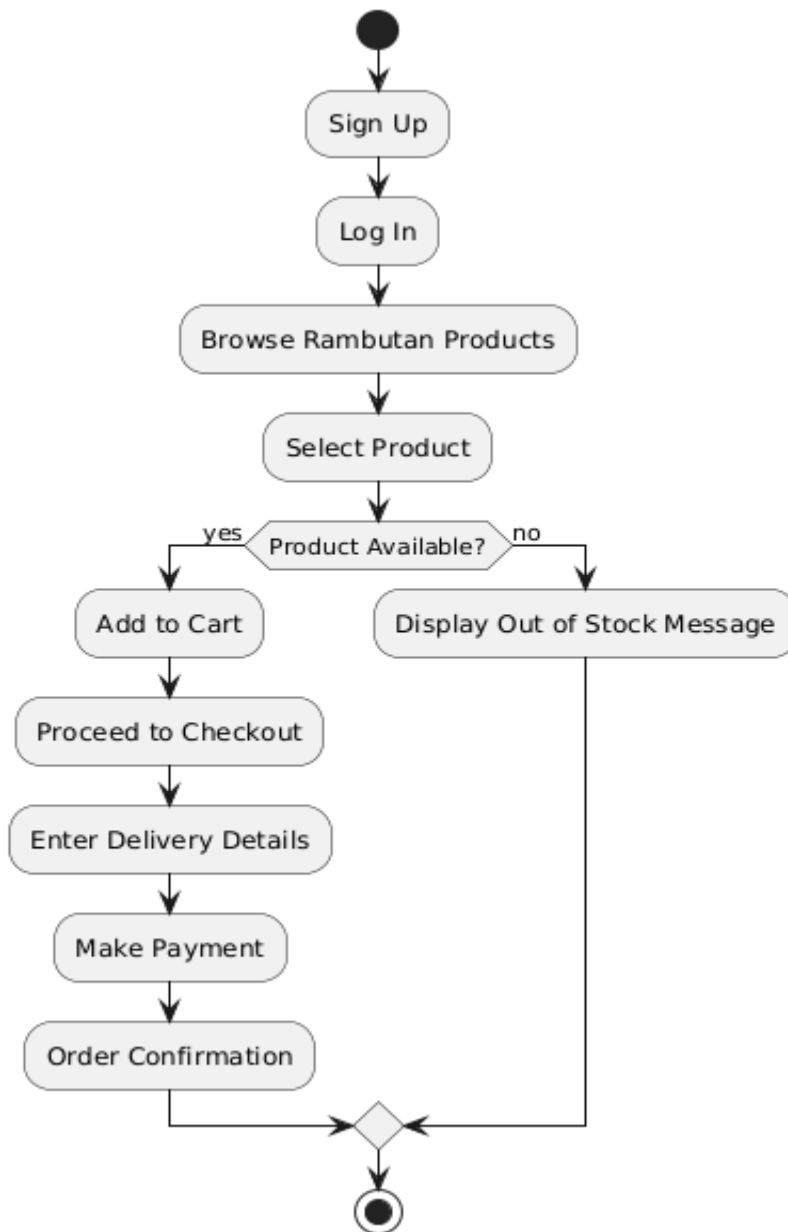
## 5. Use case



## 6. Sequence Diagram



## 7. Activity Diagram



## 8.State Chart Diagram

