

## SYSTEM ANALYSIS AND DESIGN PROJECT



# LAS ROSE APPLICATION

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## **Summary about the selected company:**

Technology has become an important factor in facilitating our daily lives by creating intelligent solutions to many problems that affect the lifestyle, and among those problems is the delay in time and the overcrowding of some individuals' requirements.

The proposed system is a smartphone application for Android and iOS, and it will facilitate the process of buying and arranging roses and gifts online.

The application serves gifts shops and customers, the shops can register in the system and add their products and shop details. Customers register in the application; the system will present to the customer the shops that near customer location, to make the delivery faster and easy for the gift shop.

Customers can browse all gifts shops then select one and browse their products, he can select a product to view its details as size and price. Then place an order and its send to the gift shop to confirm it. The customer can pay for his order online, then the application verify payment info and send the receipt to the customer.

Not only homes benefit of the services of the application, but also institutions, restaurants, schools, and hospitals. Anyone who needs to gift flowers can request from the application, and it will be delivered to the place he wants at the time specified by the customer.

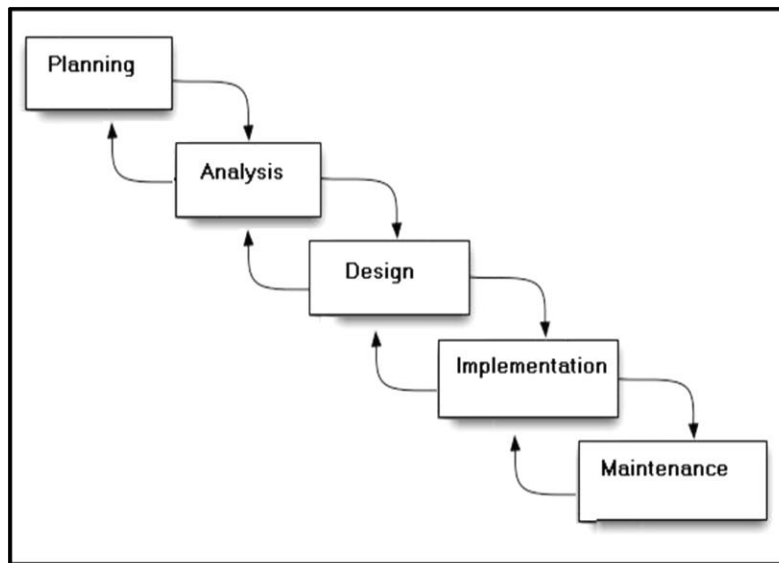
The application is location based and will use Google Maps to locate the customer for order delivery. In addition, the application will save the customer's data so that there is no need to fill in any data when ordering, only the first.

# SDLC Methodology

We have selected waterfall SDLC approach for our project development due to the following reasons:

1. Requirements are understandable and stable
2. The project period is long
3. The approach is easy to use
4. Strength of waterfall approach documentation

The following figure shows waterfall SDLC approach phases:



*Figure 1: waterfall approach*

# Planning Phase

## Gantt chart

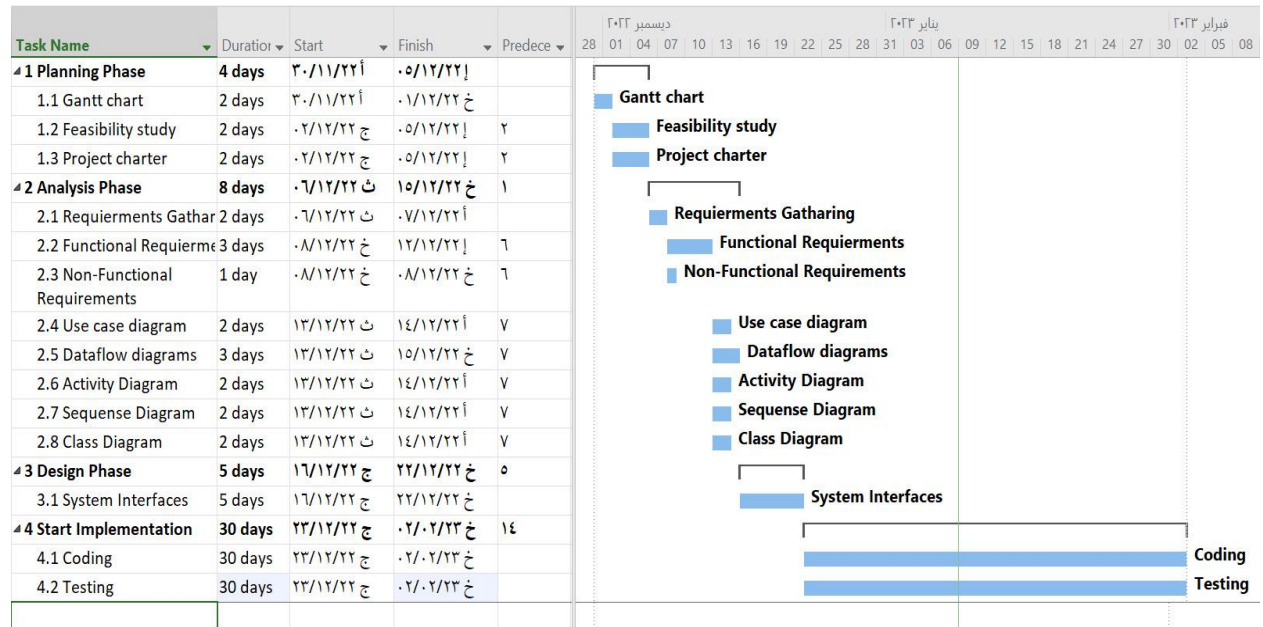


Figure 2: Gantt chart

## Feasibility Study:

### Economic feasibility:

The application will be available free on the app stores to download, each gift shop wants to register in the application they need to pay 65 \$ monthly, the customers register for free. The application cost is approximately 3000 \$, the cost details is defined in the following table.

### Economic feasibility spread sheet:

*Table 1: Financial Cost*

Item	Cost	Total
Application programming	600 for laptop	2800 \$
	500 for smartphones	
	700 \$ for android app	
	1000 \$ for iOS app	
App store fees	25 \$ for Google play	124 \$
	99 \$ for Apple store	
Marketing	150 - 300	150 \$
Total cost		3074 \$

### Tangible and intangible costs

*Table 2: Tangible and intangible costs*

Tangible costs	Cost	Intangible costs	Cost
Smartphone	- 500 \$	Internet	-50 \$
Laptop	- 600 \$	App stores	-124 \$
Programing	-1700 \$	Marketing	-150 \$
Total	-2800 \$	Total	-324 \$

## Tangible and intangible benefits

Table 3: Tangible and intangible benefits

Tangible benefits	Cost	Intangible benefits
Gifts shops pay 65\$ monthly for register in the app	For 10 shops we have 650 \$ monthly	Develop ourselves in programming and design applications
	For 20 shops we have 1300 \$ monthly	Add a new application the Saudi Market
	First year $1300 * 12 = 15600$ \$	
First year profit	$15600 - 3000 = 12600$ \$	Save customers time and effort
The application approximately profits <b>12000 \$</b> yearly. That means 1000 \$ monthly profit.		

## Technical Feasibility:

The application requirements are clear and fixed, in addition we have a good background in programming and design applications that make the Application low risk

Table 4: Technical Feasibility

		Low Structure	High Structure
High Familiarity with Technology or Application Area	Large Project	(1) Low risk (very susceptible to mismanagement)	(2) Low risk
	Small Project	(3) Very low risk (very susceptible to mismanagement)	(4) Very low risk
Low Familiarity with Technology or Application Area	Large Project	(5) Very high risk	(6) Medium risk
	Small Project	(7) High risk	(8) Medium-low risk



## Project charter

Table 5: Project charter

Project charter				
Project name		Las Rose Application	Project manager	Shahad
Project start date		01/01/2023	Project end date	05/02/2023
Last version date		05/03/2023	Project sponsor	Ashwag
Project purpose statement				
The proposed system is an application for smartphones and tablets, the application provides services for gifts shops and customers, gifts shop can register in the app and add their products and customer can register in the app then the application will present to him the gifts shops that near to his/her location. The customer can select a gift then make order and pay for the order online, the gift shop confirm the order to deliver it.				
Project objectives				
<ul style="list-style-type: none"><li>Facilitate the process of choosing and delivering gifts</li><li>Combine customers with many gifts’ shops</li><li>Help gifts shops to get new customers</li></ul>				
Project scope				
The application will serve Riyadh and Al-Kharj cities in Saudi Arabia. All gifts’ shops in the two cities can register. All types of customers can use the application, individuals, institutions, companies.				
Deliverables			Risk	
<ul style="list-style-type: none"><li>Android version</li><li>iOS version</li></ul>			<ul style="list-style-type: none"><li>Programming the online payment</li></ul>	
Financials				
Project budget 3000 \$				
Milestone			Target completion date	
Implementation and Testing			25/02/2023	
Deployment			06/3/2023	
Project team			Approval committee	
Project manager	Shahad	Business division head		
Team members	Shahad	Business unit head		
		Finance manager		

## Analysis Phase


### Requirements Gathering

The requirements gathering method that we have used are observations and brainstorming:

**Brainstorming** is a creative problem-solving technique; The original brainstorming technique involved a group of people getting together in a room and generating ideas. The goal was to gather as many ideas as possible without judging or evaluating them. Participants were encouraged to think outside the box and develop unconventional or impractical ideas.

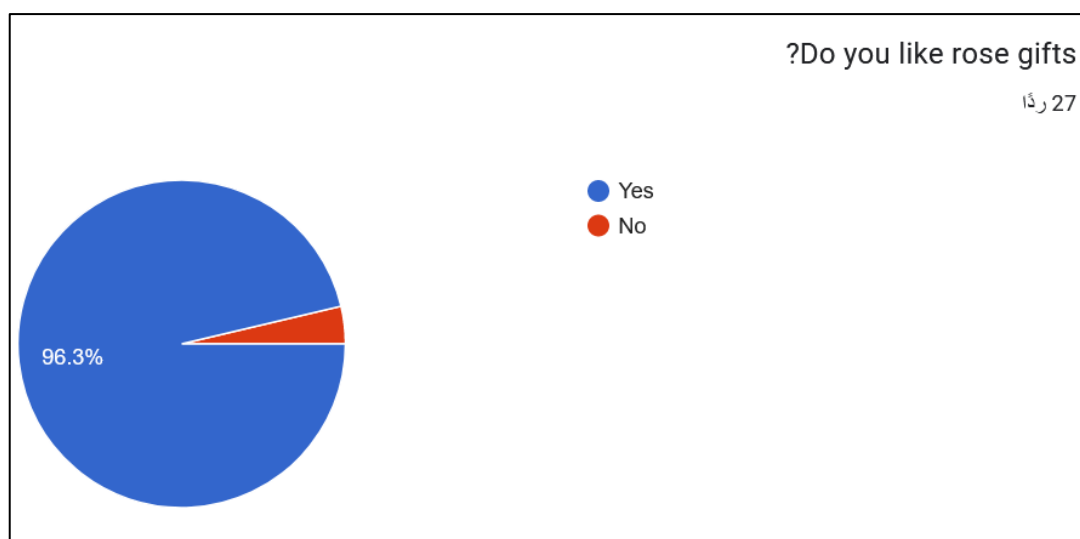
### Online Survey

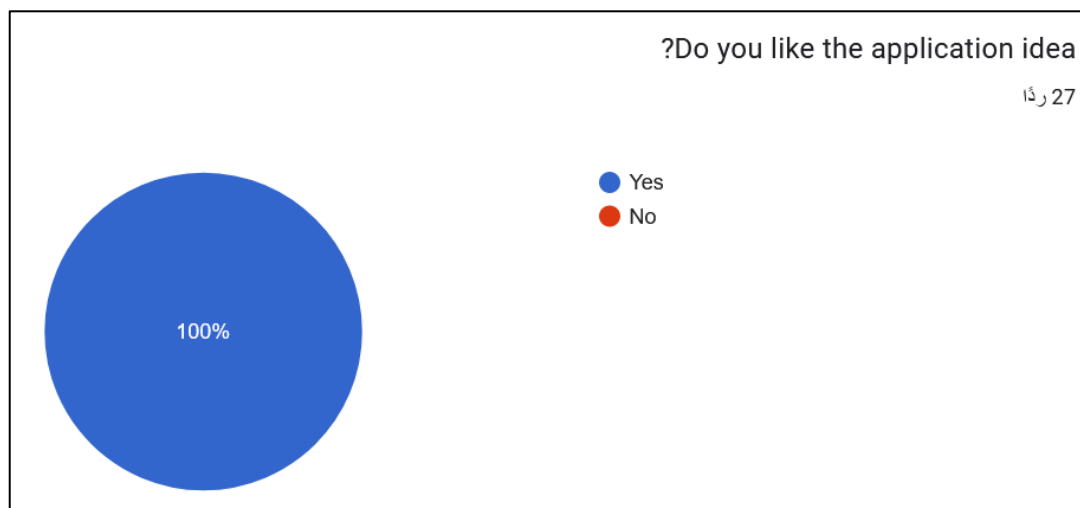
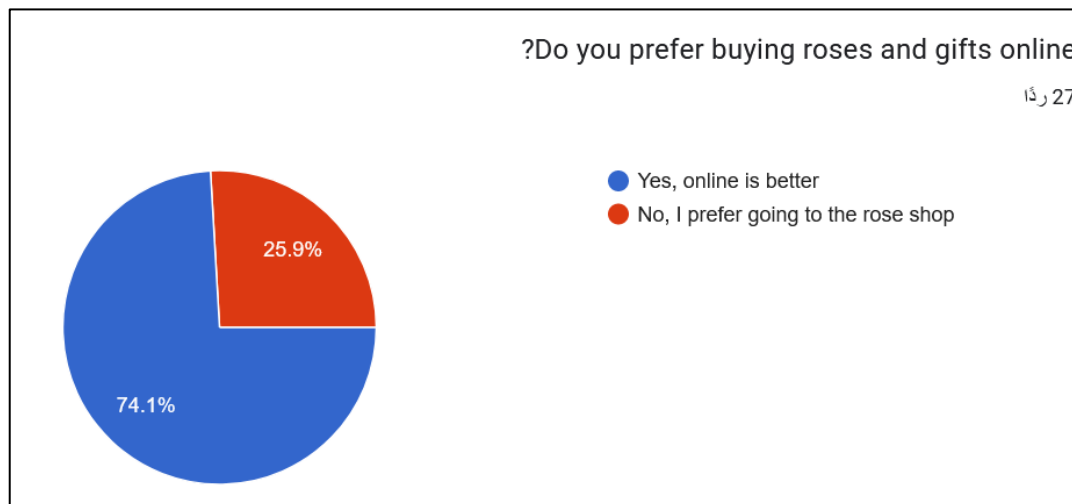
We have designed the following survey using google forms, and distribute it to get feedback about the proposed system idea and the opinions about buying and selling gifts online.



## Las Rose Application

Mobile application for selling and buying roses and gifts online, the app provide services for gifts shops and customers. A gift shop can register in the application and add their products, customers register and login to view all gifts shops, the application present the gifts shops that near the customer location to make the .delivery faster and easier. customer can order and pay for the order online





**Conclusion:** most of the responded people find the idea very helpful and creative to apply.

## **Functional Requirements:**

### **Application users:**

1. Gifts shop
2. Customer

### **1. Gifts shop functional requirements**

- 1.1. The shop shall be able to register and add shop information
- 1.2. The shop shall be able to locate the gifts shop location on the map
- 1.3. The shop shall be able to login by email and password
- 1.4. The shop shall be able to manage products
  - The shop shall be able to add products
  - The shop shall be able to modify products details
  - The shop shall be able to delete a product
- 1.5. The shop shall be able to view customers' orders
  - The shop shall be able to Confirm customers' orders

## **2. Customer functional requirements**

### **2.1. Register**

- The customer shall be able to register
- The customer shall be able to add information as name, mobile, email and password
- The customer shall be able to locate his location on the map

### **2.2. Login**

- The customer shall be able to login using email and password

### **2.3. Browse**

- The customer shall be able to browse gifts shops that near his location
- The customer shall be able to select a gifts shop
- The customer shall be able to browse gifts shop products
- The customer shall be able to select a product to view product details
- The customer shall be able to filter the appearance of products according to the price, from lowest to highest, or from highest to lowest, or best-selling, or as advised.

### **2.4. Place order**

- The customer shall be able to choose the products to order.
- The customer shall be able to choose the product quantity.
- The customer shall be able to select the delivery date and time.
- The application shall view the total price to the customer.
- The customer shall be able to send the order to the gifts shop.
- The customer shall be able to payment for the order.
- The application shall be able to verify payment data.
- The customer shall be able to receive a confirmation of his order.

## **Non-functional Requirements:**

### **1- Operational requirements:**

- 1.1 The system should be able to work on any web browser.
- 1.2 The system should be able to flexible.
- 1.3 The system should work on iOS and Android Systems.

### **2- Performance:**

- 2.1 The system should be available for use 24 hours per day, 365 days per year.
- 2.2 The system should be able to serve a huge number of applicants at the same time without problems.

### **3- Security:**

- 3.1 Account activation through mobile number or Email address.

### **4- Privacy:**

- 4.1 The system should maintain confidentiality and privacy of user data

## Use case diagram:

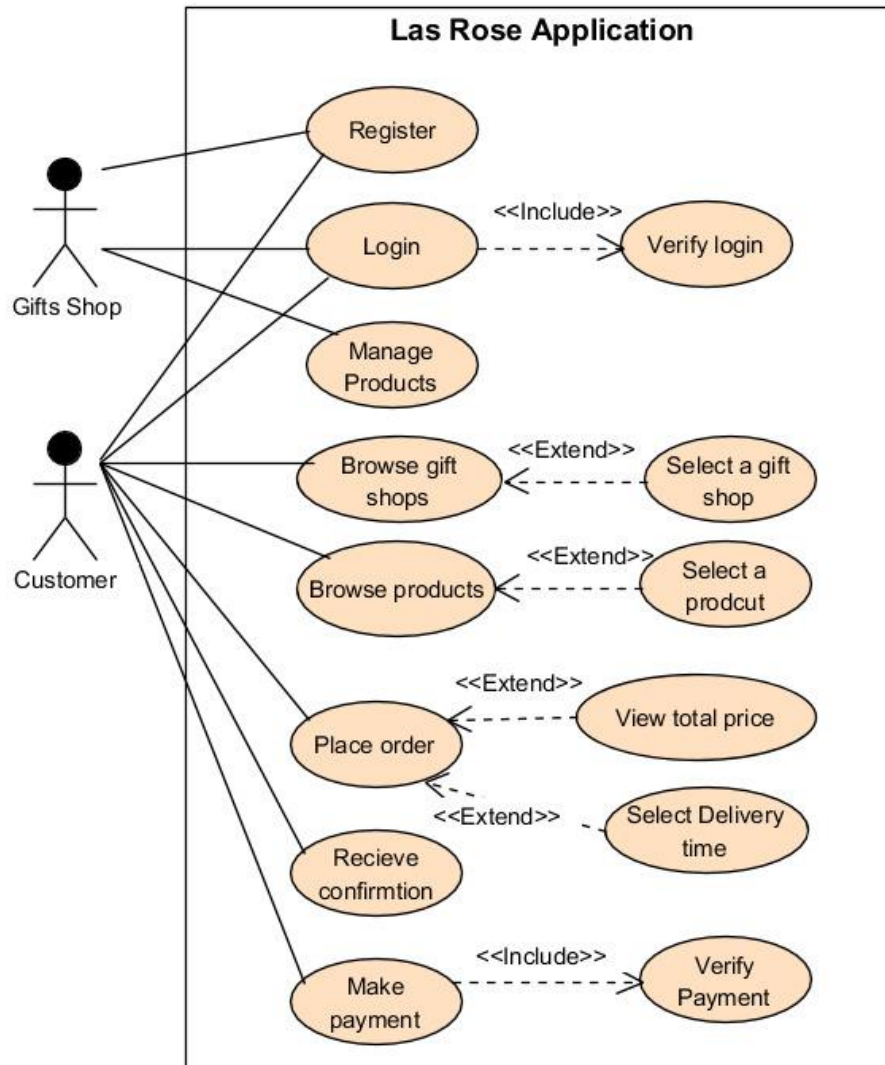


Figure 3: Use case diagram

## Data Flow Diagrams (DFD)

### Context Diagram

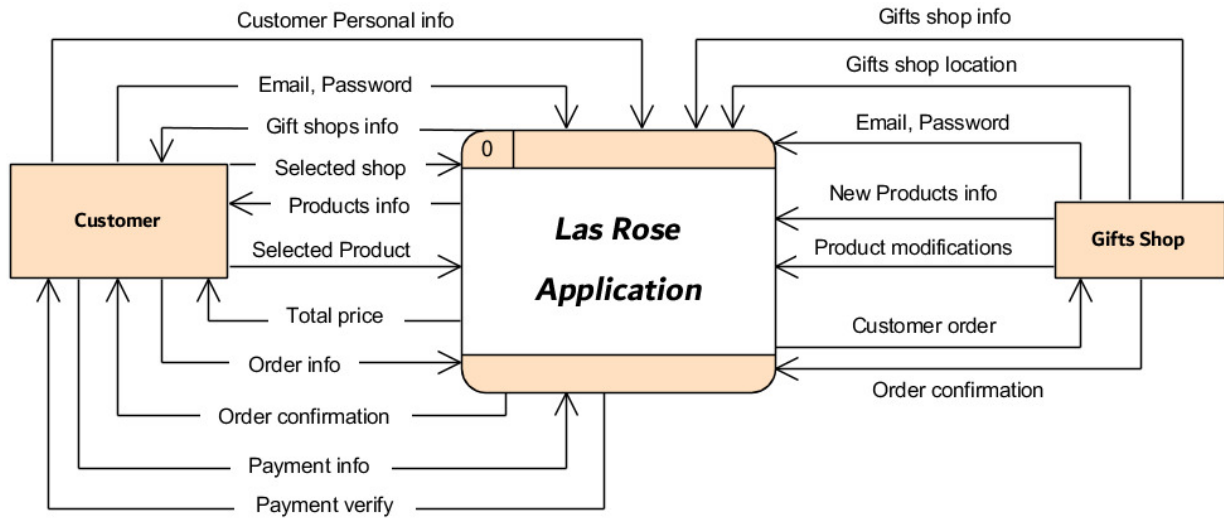


Figure 4: Context Diagram



## Level-0 DFD

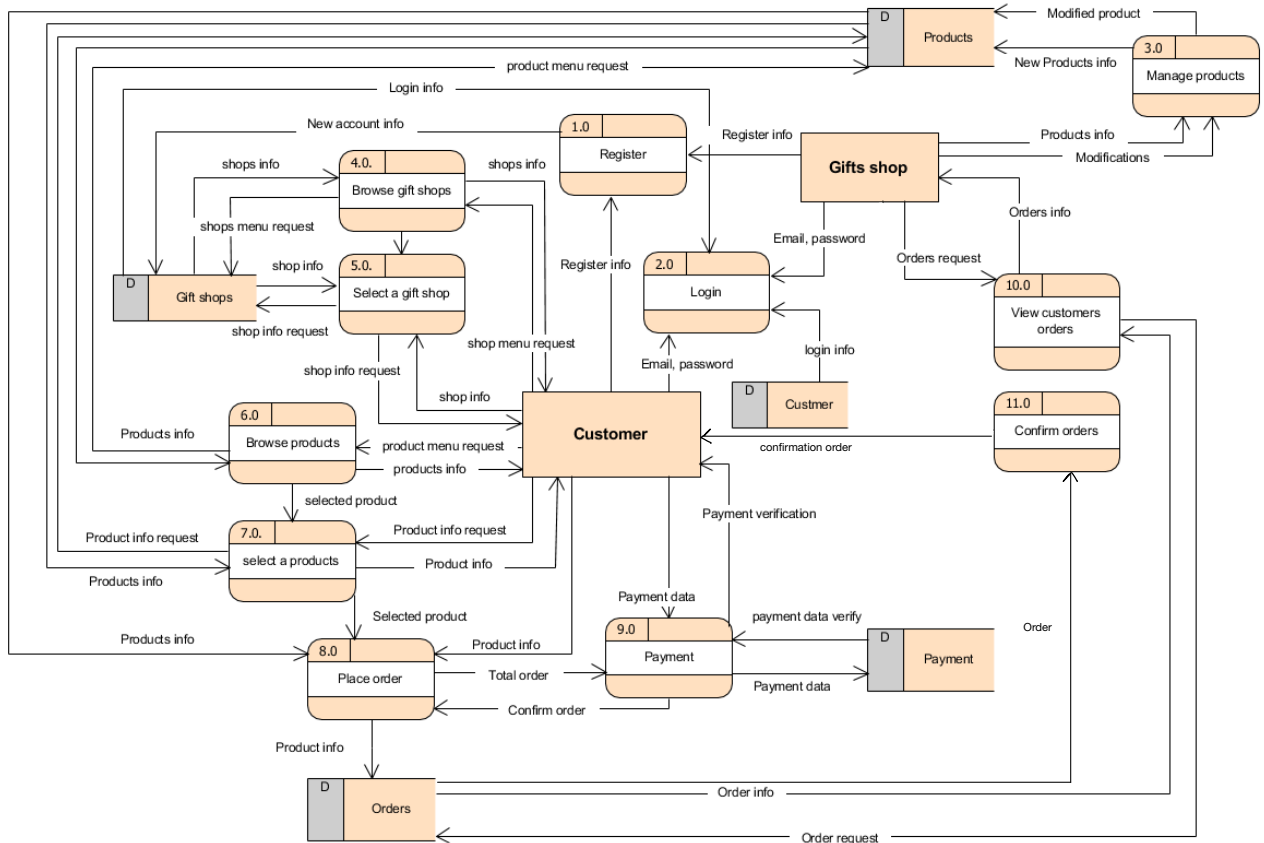


Figure 5: Level-0 DFD

## Level-1 DFD

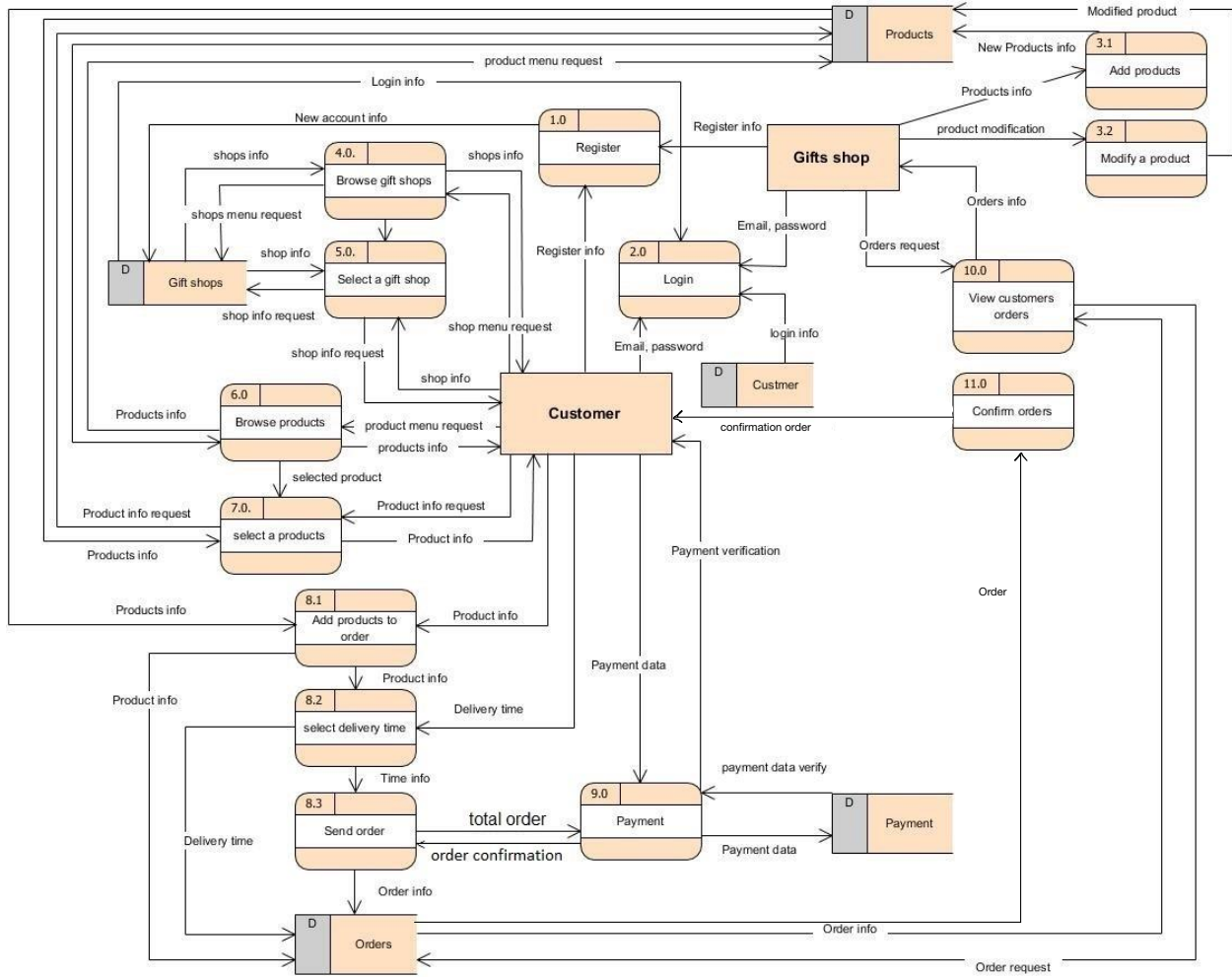


Figure 6: Level-1 DFD

# Activity Diagram

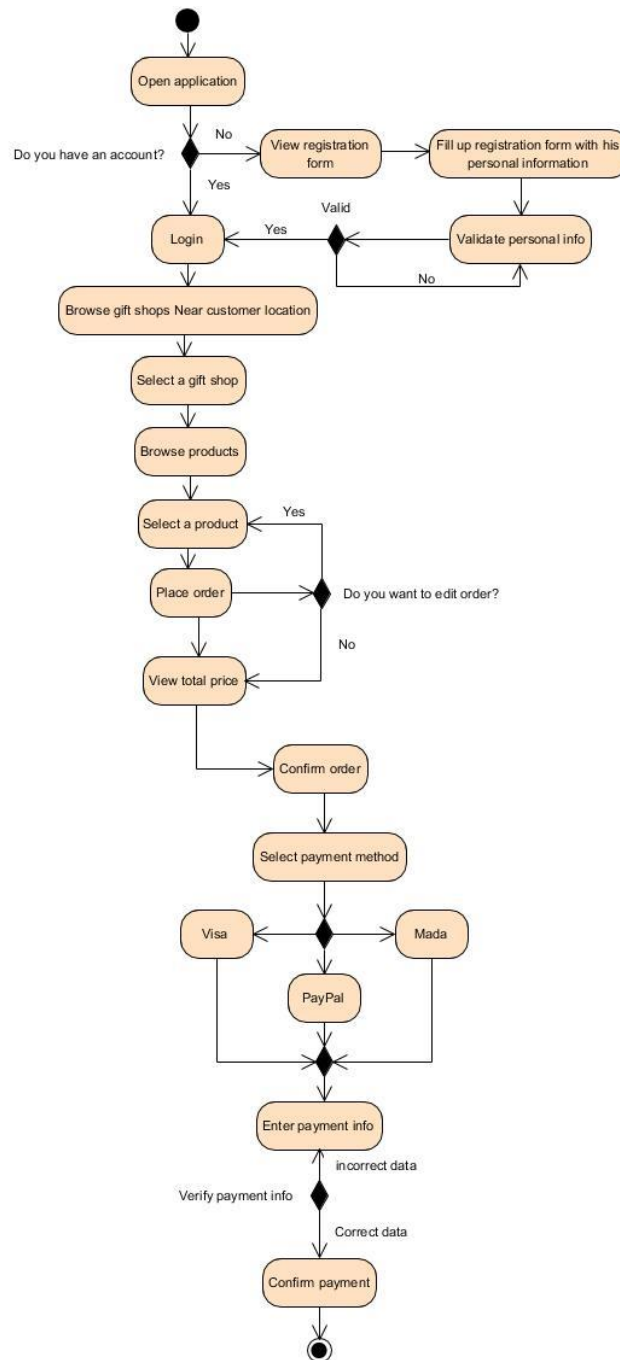
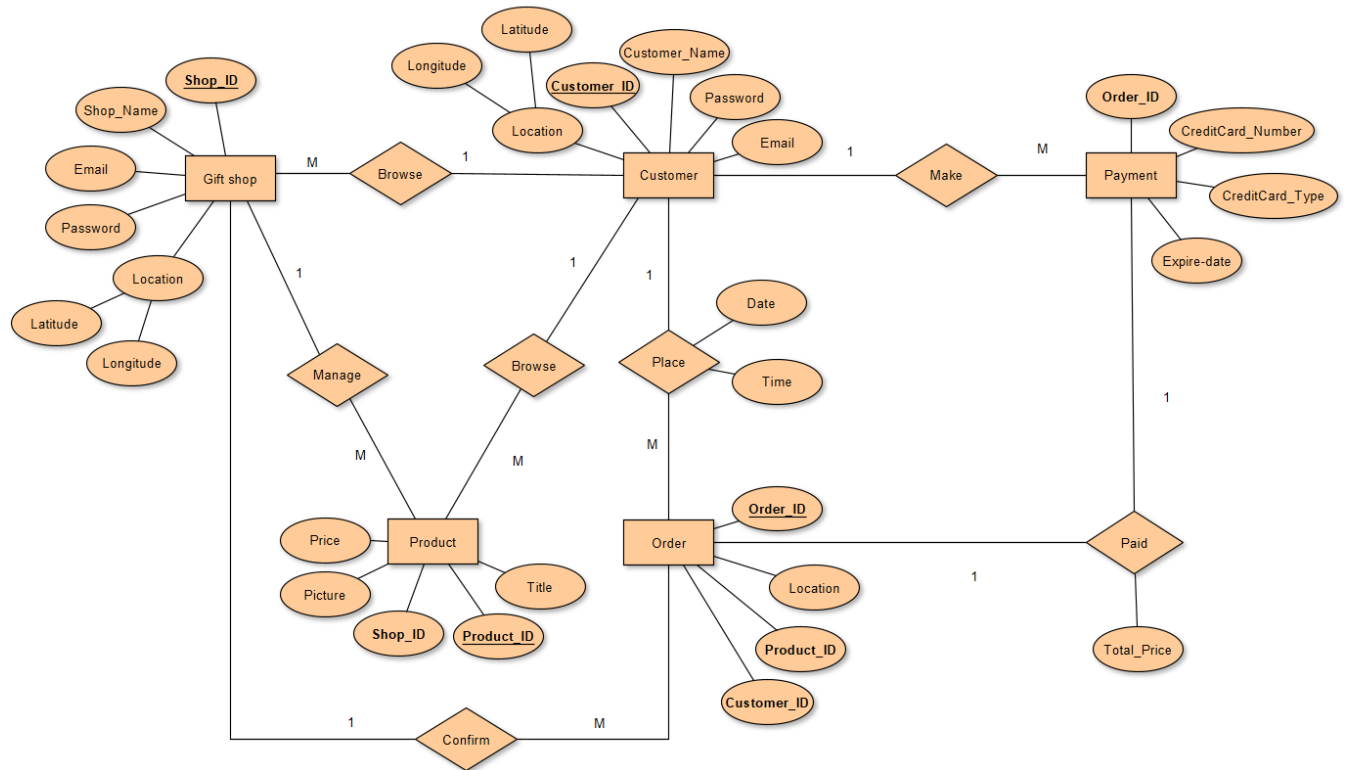


Figure 7: Activity Diagram

# ER Diagram



# Sequence Diagram

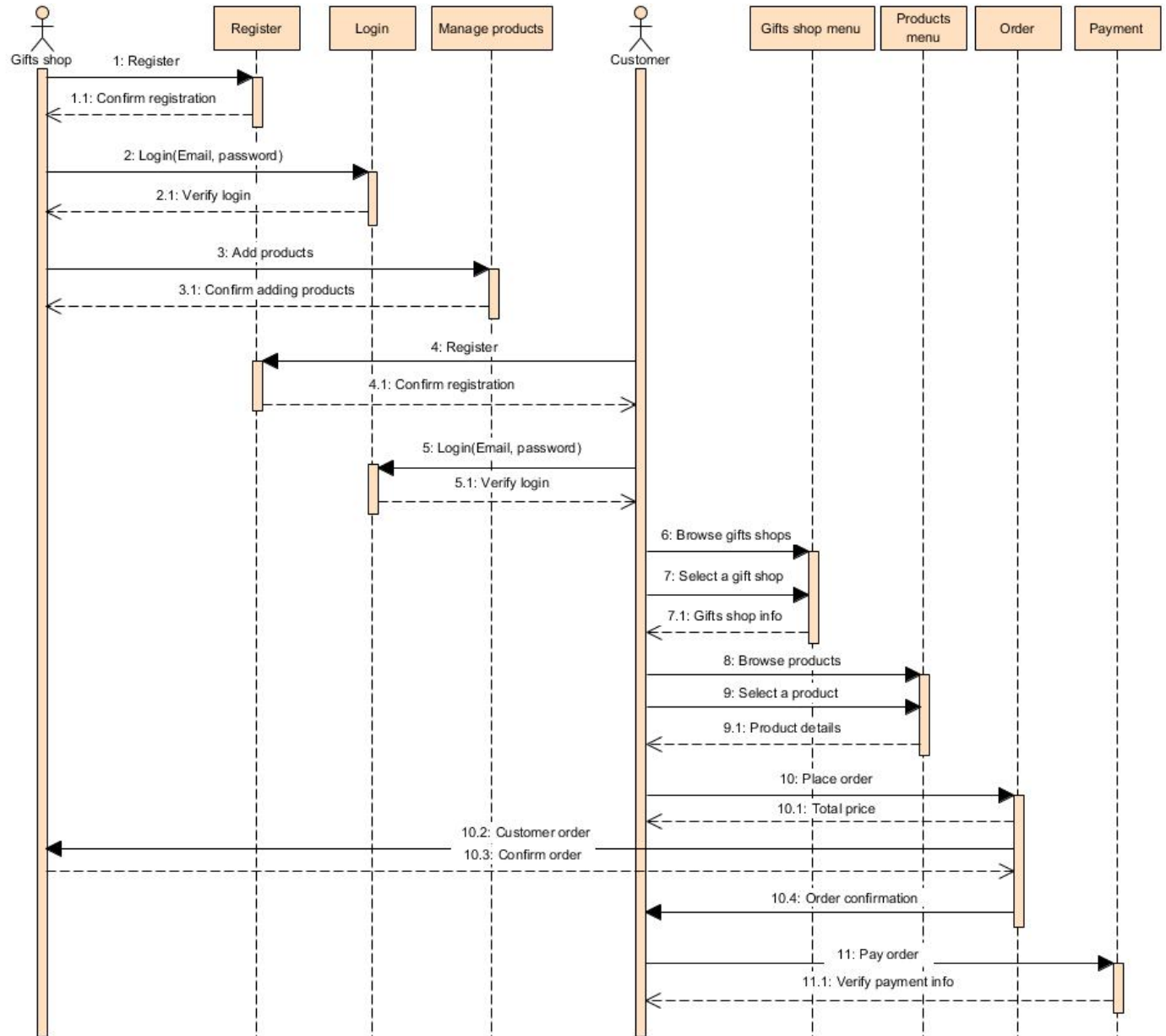


Figure 8: Sequence Diagram

## Design Phase

### Application Sketch Screens

#### Main Screen

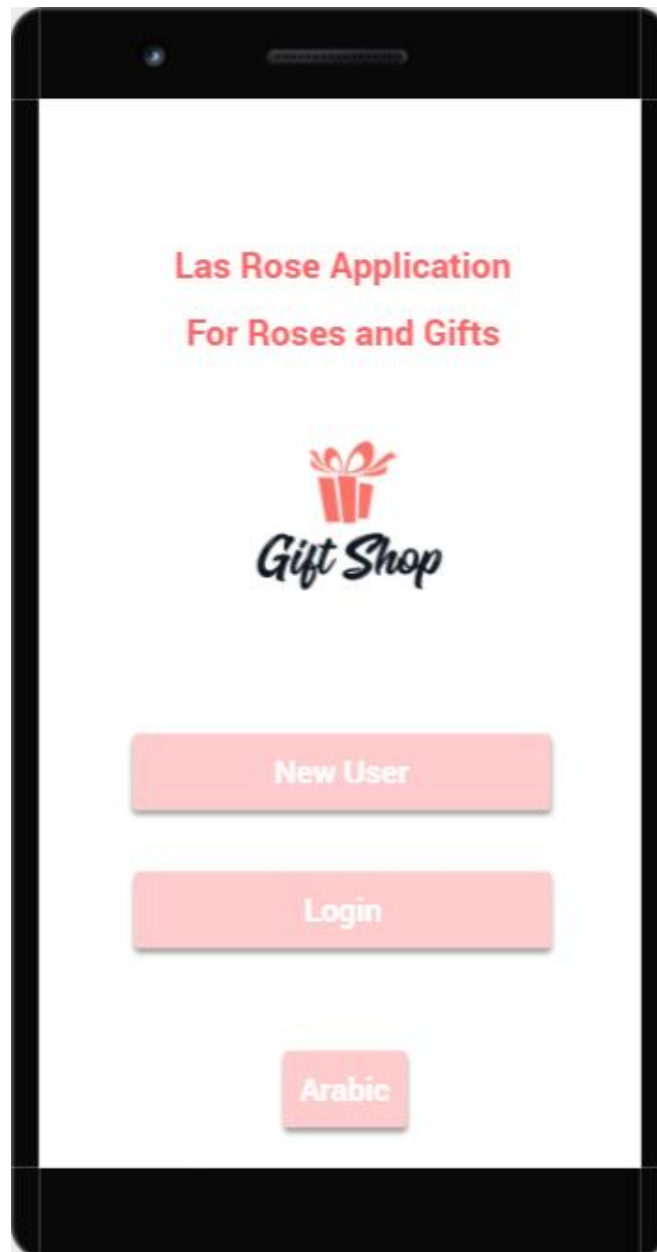
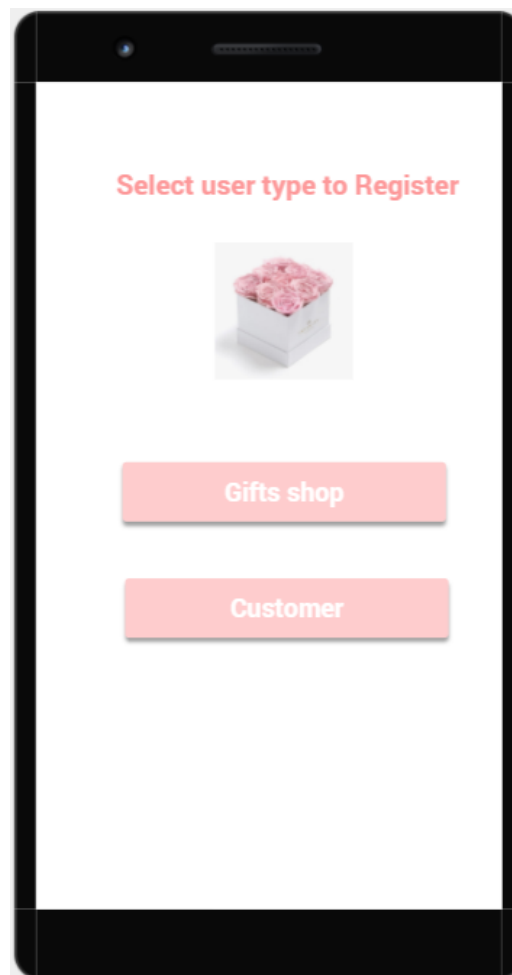


Figure 9: Main screen

## Users Registration



*Figure 10: Users Registration*

## Customer and Gifts shop registration form

The image displays two side-by-side mobile app screens. The left screen is titled 'Customer Registration' and features input fields for Name, Email, Password, Mobile, and Address. It also includes a 'Location on the map' label with a 'View Map' button and a large 'Register' button at the bottom. The right screen is titled 'Gifts Shop Registration' and features input fields for Name, Email, Password, Address, Phone, and Description. It also includes a 'Location on the map' label with a 'View Map' button and a large 'Register' button at the bottom. Both screens have a black header and footer bar.

### Customer Registration

Name

Email

Password

Mobile

Address

Location on the map [View Map](#)

[Register](#)

### Gifts Shop Registration

Name

Email

Password

Address

Phone

Description

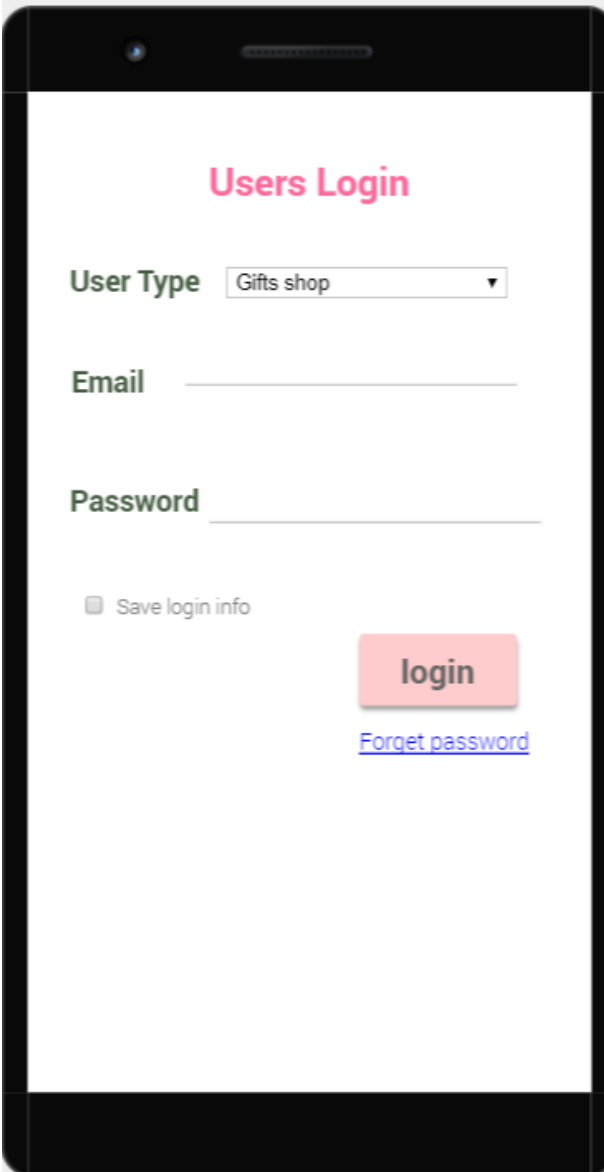
Location on the map [View Map](#)

[Register](#)

Figure 11: Customer and Gifts shop registration form



## Users login screen

A mobile app login screen titled "Users Login" in pink. It features a "User Type" dropdown menu with "Gifts shop" selected, an "Email" input field, and a "Password" input field. Below the password field is a checkbox labeled "Save login info". A pink "login" button is positioned to the right of the checkbox, and a blue "Forget password" link is located directly below the button. The entire screen is framed by a black border representing a smartphone.

**Users Login**

**User Type** Gifts shop ▼

**Email** \_\_\_\_\_

**Password** \_\_\_\_\_

☐ Save login info

**login**

[Forget password](#)

*Figure 12: Users login screen*

## Products menu screen

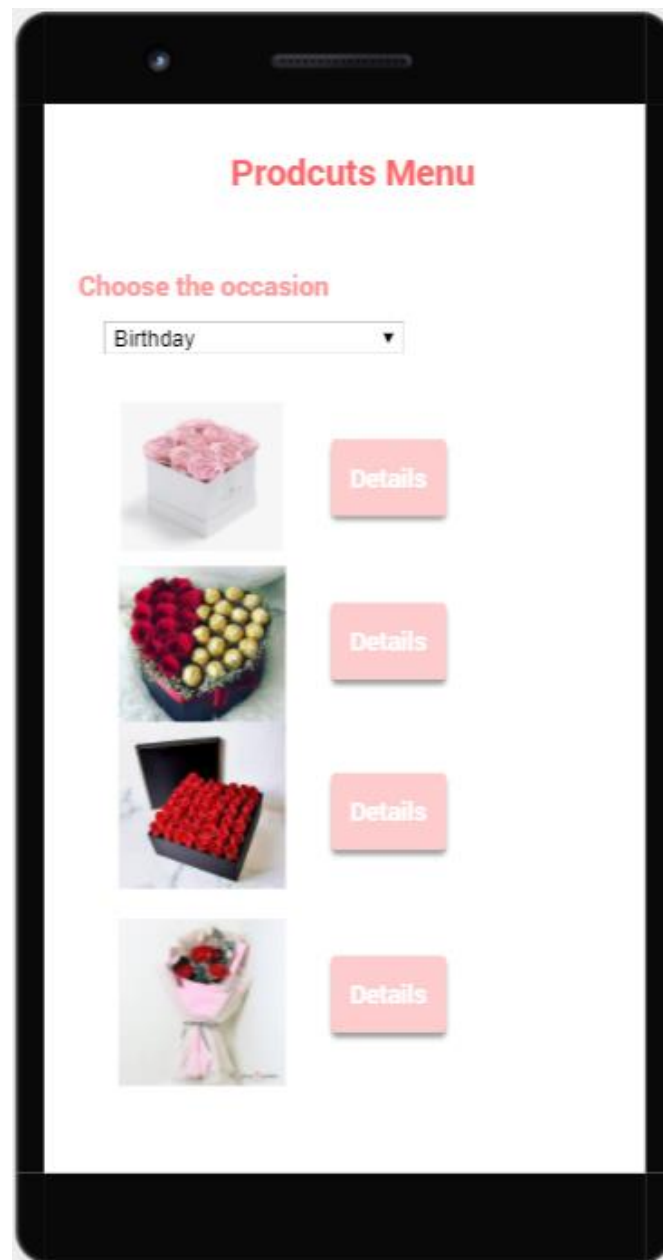
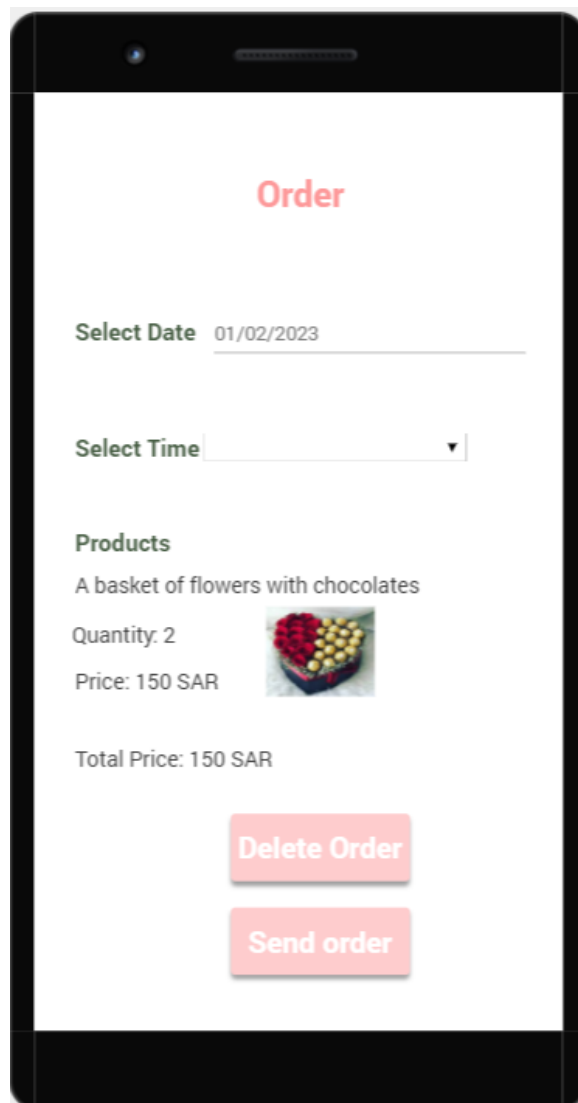


Figure 13: Products menu screen

## Order Screen



The image shows a mobile application screen for placing an order. At the top, the word "Order" is displayed in red. Below it, there are two input fields: "Select Date" with the value "01/02/2023" and "Select Time" with a dropdown arrow. The "Products" section lists "A basket of flowers with chocolates" with a quantity of 2 and a price of 150 SAR. An image of a heart-shaped box of chocolates is shown next to the product details. The total price is 150 SAR. At the bottom, there are two red buttons: "Delete Order" and "Send order".

**Order**

Select Date 01/02/2023

Select Time ▼

**Products**

A basket of flowers with chocolates

Quantity: 2

Price: 150 SAR

Total Price: 150 SAR

Delete Order

Send order

Figure 14: Order screen



