

# **COSC2659 - iOS Development**

## **Assignment 3**

Project Documentation

**“22Shop” shopping app**

Lecturer: Mr. Tom Huynh

Group: 22

Group members:

Tran Truong Son - s3818468

Vu Thien Nhan - s3810151

Nguyen Cong Phuong - s3804846

Dao Minh Cuong - s3866133

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## Application Description:

In recent years, Vietnam's e-commerce market has been seeing robust growth, forecasted to be the second-largest Southeast – Asia in 2025 [1]. And with the impact of COVID-19, Vietnam's citizens turned to local online retailers not only for their luxury goods, such as shoes, clothing, jewellery, mobile devices, etc. but also for daily supplies of groceries and necessities [1]. But as consumers and users of those platforms ourselves, we feel that there are not enough tools for small/individual run shops to grow their own vendors. So we, Group 22, decided to choose an online shopping app for our iOS Group Project, to try and capitalise off of that fact.

With that in mind, our app hopes to serve as an online storefront to let users view available items for purchase, with item descriptions, ratings, etc., and purchase them from the app. Our main features will be letting users sign up and login with their accounts, view the items from a viewable page, displaying items from selected categories.

Some app features:

<b>FEATURE</b>		
	Priority	Features
<b>In Scope</b>	Main	<p>Viewable Pages</p> <ul style="list-style-type: none"><li>-A landing page for users to register a new account or login with an existing account.</li><li>-Main page with product categories</li><li>-Category page with items matching the category.</li><li>-Item view with item descriptions, price, seller's info, suggestion for other items in the same category.</li><li>-A cart view for when users add items to cart. (or a save for later list in place of this feature.)</li></ul>
		<p>CRUD</p> <ul style="list-style-type: none"><li>-Create a shopping list items(Add to cart)</li><li>-Read the data from the file stored</li><li>-Update card items</li><li>-Delete card items</li><li>-View category list</li></ul>

			<ul style="list-style-type: none"> <li>-Search shopping items by keywords</li> <li>-View shopping items by category</li> </ul>
		MVVM model	<p>Model: Abstraction of the data source  View: Inform the ViewModel about the user's action.  ViewModel: exposes data streams which relevant to the View</p>
Secondary		Cart	A cart for adding and removing items.
		Payment	<ul style="list-style-type: none"> <li>- A mock payment system to let user checkout with cart item</li> </ul>

Table 1: Feature list

## Application Screenshots/GIF/Video:

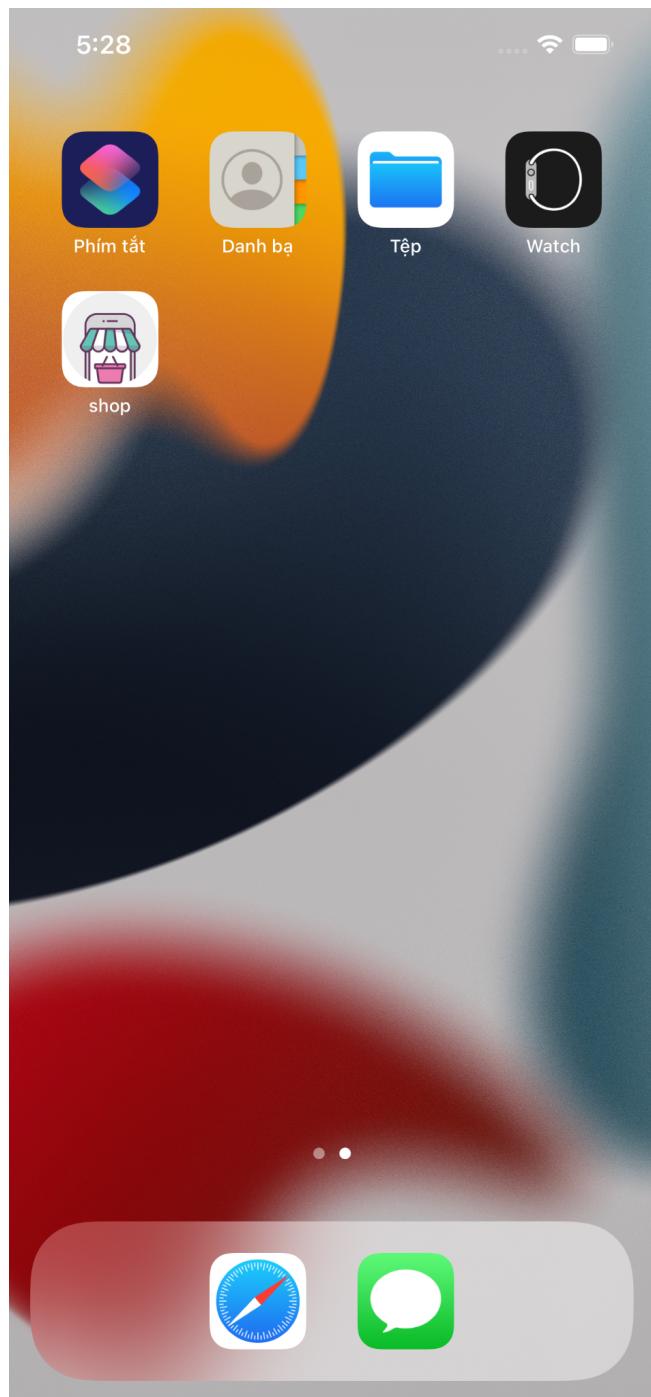


Figure 1: App icon

5:28



# 22Shop

Username

Password

LOGIN

SIGNUP

---

Figure 2: Login Page

5:29



**22Shop**

user@gmail.com

.....|

LOGIN

SIGNUP



Figure 3: Email login information

5:35



# 22Shop

Username

Password

Location

**SIGNUP**

[Already have an account? Login](#)

---

Figure 4: Register Page

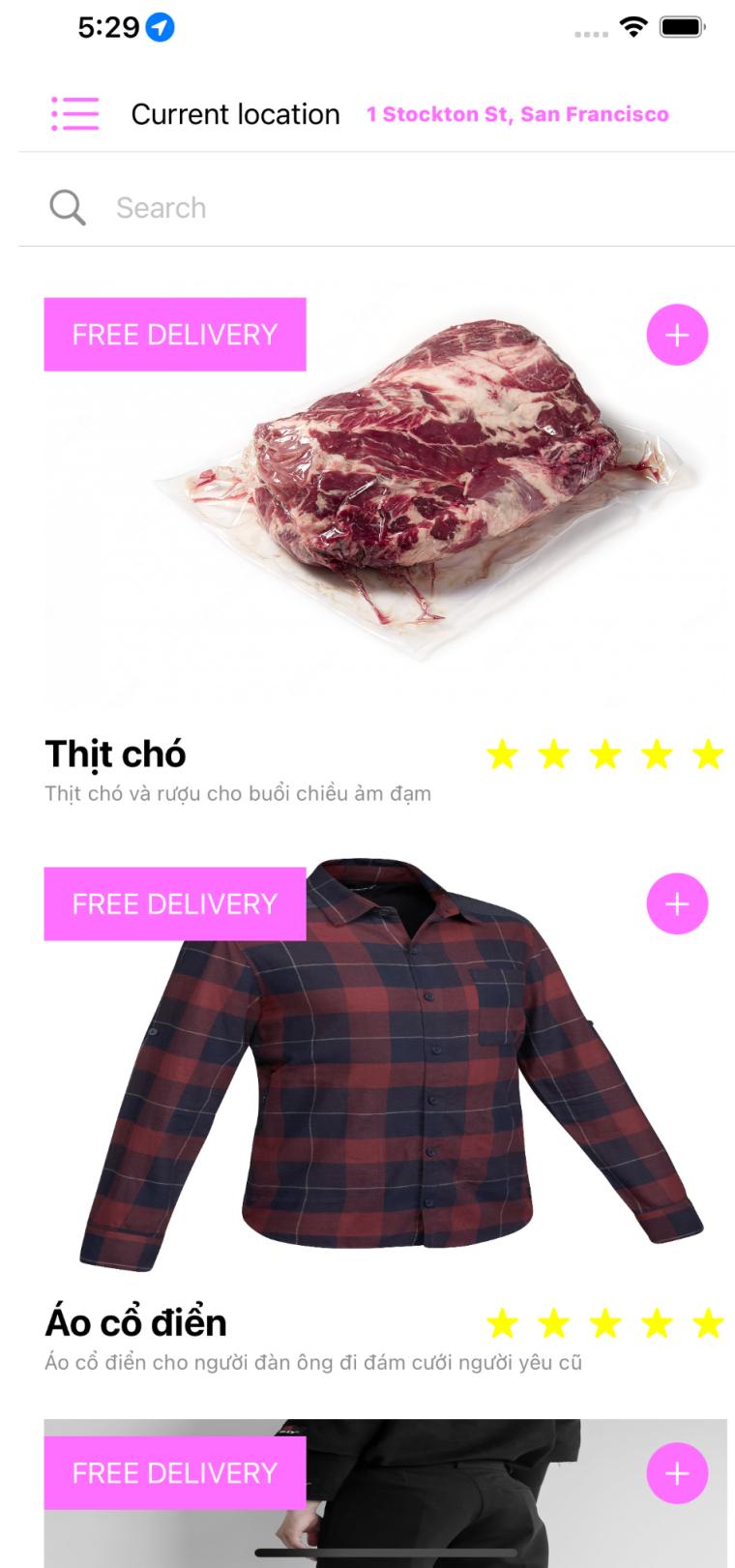


Figure 5: Home view

5:29  
 **Back**

.....  



## Quần cargo ★ ★ ★ ★ ☆

---

**Price:** 30\$

---

**Item description**

Cargo comfy pant for oldies

---

Figure 6: Item View

5:30 ↗



◀ My cart



Thịt chó

Thịt chó và rượu cho buổi chiều  
ẩm đậm

**3.00 \$**

– 4 +

Total

**12.00 \$**

**Check out**

Figure 7: Cart View

More in Google Cloud

foodapp-33a2d	Users	testuserfinal@gmail.com
<a href="#">+ Start collection</a> Items <b>Users</b> > categories	<a href="#">+ Add document</a> 123456789@gmail.com a123@gmail.com aassdd@gmail.com asd@gmail.com asdfasdf111111@gmail.com cuong@gmail.com.vn deptrai@gmail.com fcXzwIz6fDQUNlP2Ypa38n0n8g1 test1@gmail.com test@gmail.com <b>testuserfinal@gmail.com</b> > user123123@gmail.com user@gmail.com usertest@gmail.com	<a href="#">+ Start collection</a> <a href="#">+ Add field</a> <b>ordered_food</b> <ul style="list-style-type: none"> <li>0               <ul style="list-style-type: none"> <li>item_cost: 3 item_name: "Thịt chó" item_quantity: 5</li> </ul> </li> <li>1               <ul style="list-style-type: none"> <li>item_cost: 120 item_name: "Fancy pant" item_quantity: 3 total_cost: "375.00 \$"</li> </ul> </li> </ul>

More in Google Cloud

categories	Items	1amHSifpXRdlc4fUDqQK
<a href="#">foodapp-33a2d</a> <a href="#">+ Start collection</a> <b>Items</b> > Users categories	<a href="#">+ Add document</a> <b>1amHSifpXRdlc4fUDqQK</b> > 73xSMaXpcgd3dQEpFxfq A4y2oeMJZRxDgHqxFYvq ADxMDX1QhhTd7WHBRczm MF4b3ku1VwKzdVEExwaF MGyWhNBkM6kXD1z0FjzV MgpPWn9M6F2x4H9h3rlp MovmfbjFxdSrfhA64Vrz QvGrusCuFvjoBS5bg6Lg UypAa4j18B8hsaJaQadx Xd2oeqAa101faQxqv37f g9oZ7pGRCurgjpLcw39R k5cCVPPs5HU0mexYJWIj qoW4L00kJ1K75V9R04Ju	<a href="#">+ Start collection</a> <a href="#">+ Add field</a> item_cost: 3 item_details: "Thịt chó và rượu cho buổi chiều ăn đậm" item_image: "https://firebasestorage.googleapis.com/v0/b/foodapp-33a2d.appspot.com/o/piece-fresh-pork-meat-vacuum-packed-vacuum-packed-raw-fresh-pork-neck-meat-isolated_174533-445.jpg?alt=media&token=2873976f-ae90-4286-b209-a2388906f784" item_name: "Thịt chó" item_ratings: "5"

gs://foodapp-33a2d.appspot.com

Name	Size	Type	Last modified
1200-1200x676-16.jpeg	164.61 KB	image/jpeg	Sep 13, 2022
7cfe733e27707499b5edc9d98808757d.jpg	247.39 KB	image/jpeg	Sep 18, 2022
84281_1.jpg	55.78 KB	image/jpeg	Sep 18, 2022
NHL1725-1fa.jpg	204.4 KB	image/jpeg	Sep 18, 2022
U62ab73a702114a779085ae42cdb7a1a6c.jpg	67.75 KB	image/jpeg	Sep 18, 2022
ao-t-shirt-co-tim.jpg	103.76 KB	image/jpeg	Sep 18, 2022
e24fc62d957b8b7c5c13fb8053cfa0d1.jpg	101.72 KB	image/jpeg	Sep 18, 2022
images-2.jpeg	9.35 KB	image/jpeg	Sep 18, 2022
images.jpeg	4.1 KB	image/jpeg	Sep 18, 2022
p1484240.jpg	333.56 KB	image/jpeg	Sep 18, 2022

Figure 8: Firebase data management

## Application Flow Diagram:

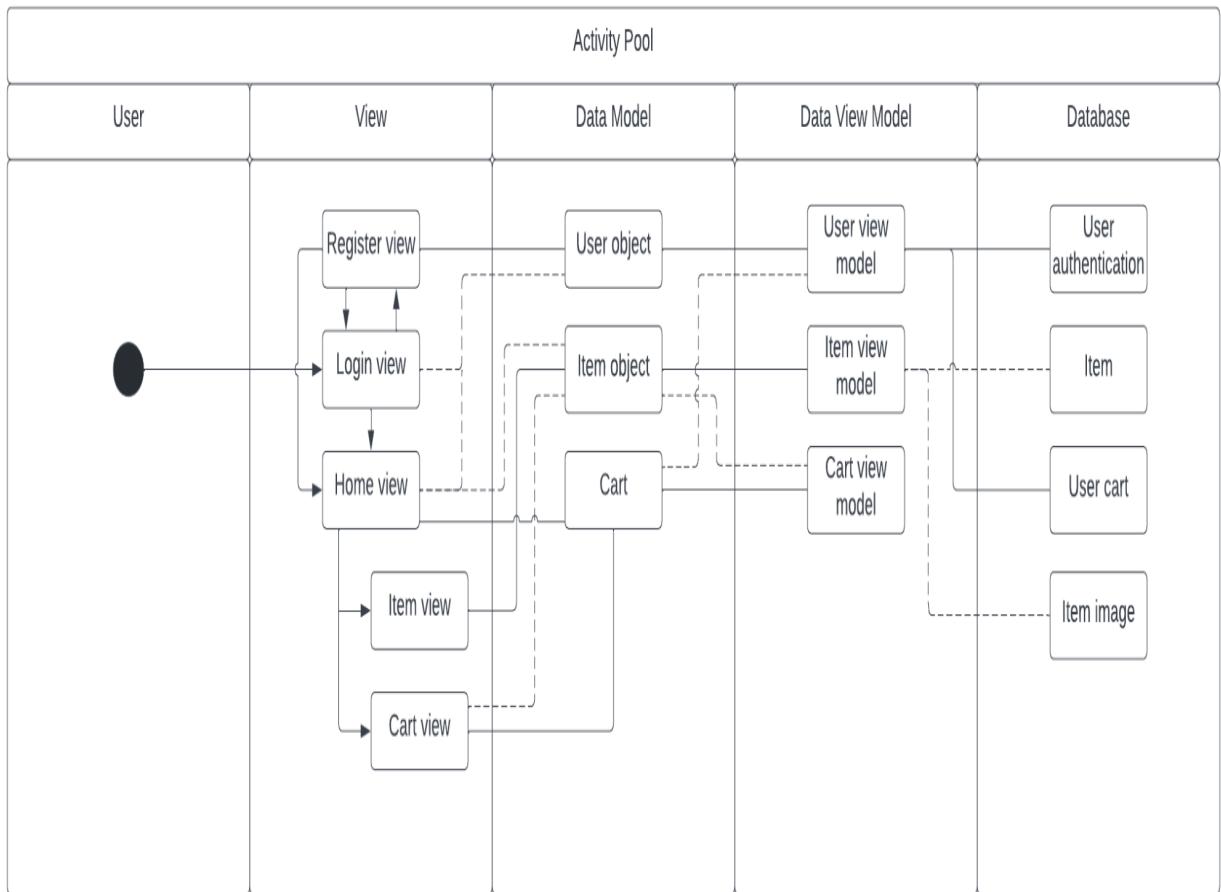


Figure 9: Flow diagram

## Technologies:

Swift and SwiftUI component

Authentification

- Sign Up: users create username, password, and the user delivery address . The data will be uploaded on Firebase both as email authentication information and as a user's personal document. User upon signed up will be logged into the home page
- Sign In: users log in page by the username and password that has already been created. The data will be checked by Firebase. If the data matches, successfully login.

Home Page:

- Current location display: display user current location
- Menu: allow user to switch to cart view or log out
- Item: Display Item basic informations and allow user to add item to cart

Cart page:

- Item: The page lists all the items the user has added to the cart along with each of the item's individual amounts (cost of 1 item), they can then change the amount of each to their desired amount.
- Total cost: The app will calculate the total cost of every item and show them at the bottom.
- Checkout: This button serves to save the cart data to the specific user document on firebase.
- Delete cart: This button replaces the Checkout button when the cart is logged. On the tab, the user's cart on firebase will be deleted.

#### External Libraries

Firebase: we import the package from gitHub to load the data from the database

SDWebImage:

## Known Bugs/Problem:

## Competitors:

The competitor to our app is also our inspiration, Shopee, and others like Lazada, Tiki, etc. Instead of focusing on trying to compete directly with those competitors, we will mostly be focusing on building a simplistic app for a smaller, local market.

## Project Responsibilities:

Members	Dao Minh Cuong	Nguyen Cong Phuong	Tran Truong Son	Vu Thien Nhan
Tasks				
Front End				
UI				
Design Pages Layout			X	X
UI Coding			X	X
View Link			X	X
Implement Button Actions			X	X

UX	X	X	X	X
Display Item Information and Images	X	X	X	X
Back End				
Functions setup				
Add to Cart	X	X		
Sign In / Register / Sign Out	X	X		
Error fetching and handling	X	X		
Checkout	X	X		
Data				
Database Link	X	X		
User authentication	X	X		
Data fetching	X	X		
Storing user data	X	X		
CRUD	X	X		
Others				
Testing and Debugging	X	X	X	X

Table 2: Task distribution

#### References:

- [1]"Topic: E-commerce in Vietnam", *Statista*, 2022. [Online]. Available: <https://www.statista.com/topics/5321/e-commerce-in-vietnam/#dossierKeyfigures>. [Accessed: 17- September - 2022].