



**RMIT University Vietnam, School of Science,  
Engineering & Technology**

**COSC2659 - iOS Development**

**Assignment 3: Group Project**

Team Name: Random Group 5

Members:

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## 2. Application Description

### 2.1. Application name

- "RMIT VN Cafeteria"

### 2.2. Inspiration/theme

The inspiration for choosing this topic. Why does it related to the keyword theme?

- When I (Nguyen Trong Thanh s3818993) had my first internship at *Intel Products Vietnam*, I, and other interns, was amazed by their cashless approach at their facility.
  - Employees come down to the cafeteria, pick a food, and scan their *ID badges* at the scanner to checkout. The balance is topped-up automatically at the of the month, since this is employees' lunch benefits.
- I thought it would be a great idea if I could implement a similar concept at RMIT VN SGS Campus.
- When first opening the app, the users (RMIT VN students, and employees) can **discover** a list of available food vendors at RMIT VN and their respective menus.

### 2.3. Purpose

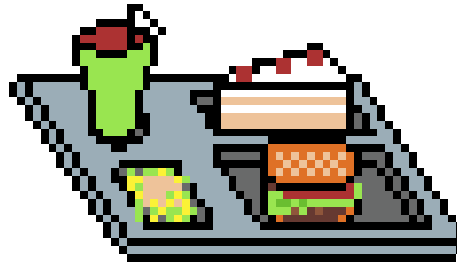


Figure 1: The application's icon

Two overall purposes of the app:

- At the moment, the cafeteria has two purchase options: bank accounts (Techcombank, Vietcombank, etc.); or digital wallets (ZaloPay, MoMo, etc.). This app adds a third option since the other two might not be available to the cafeteria customers.
- Improve people's quality of life. Give them a better experience when ordering food at the cafeteria.

A bit more about the first purpose:

- Back in 2021, when RMIT VN first announced that they are going cashless, it was quite a shock to many students (and perhaps the school employees as well).
- We speculated that a lot of people might not have a bank account in their name. Especially recent high school graduates that just started their first semester at the university.
  - These newbies don't even have a personal wallet to even begin with.
- Without bank accounts, people have to rely on external digital wallets (ZaloPay, MoMo, etc.). However, reliance on them is not a good idea. Sometimes, these digital wallet systems are down for whatever reasons, rendering thousands and millions of Vietnamese people unable to purchase whatever they are buying. And these downtimes are quite frequent, based on what I observed in real life.

From those two purposes born the RMIT VN Cafeteria iOS application:

- First step: Students deposit their Vietnam dong banknotes at the RMIT Connect reception area to top up their app balance.
- Second step: Once done, they go to the cafeteria and start ordering food. No need for bank accounts, or digital wallets. The app will deduct the student's balance.
- Rinse and repeat.

## 2.4. Features

Main features (must-achieved):

- Sign In & Sign Up
- See a list of food vendors, as well as their menu
- Order food

Secondary features (might include if possible):

- N/A

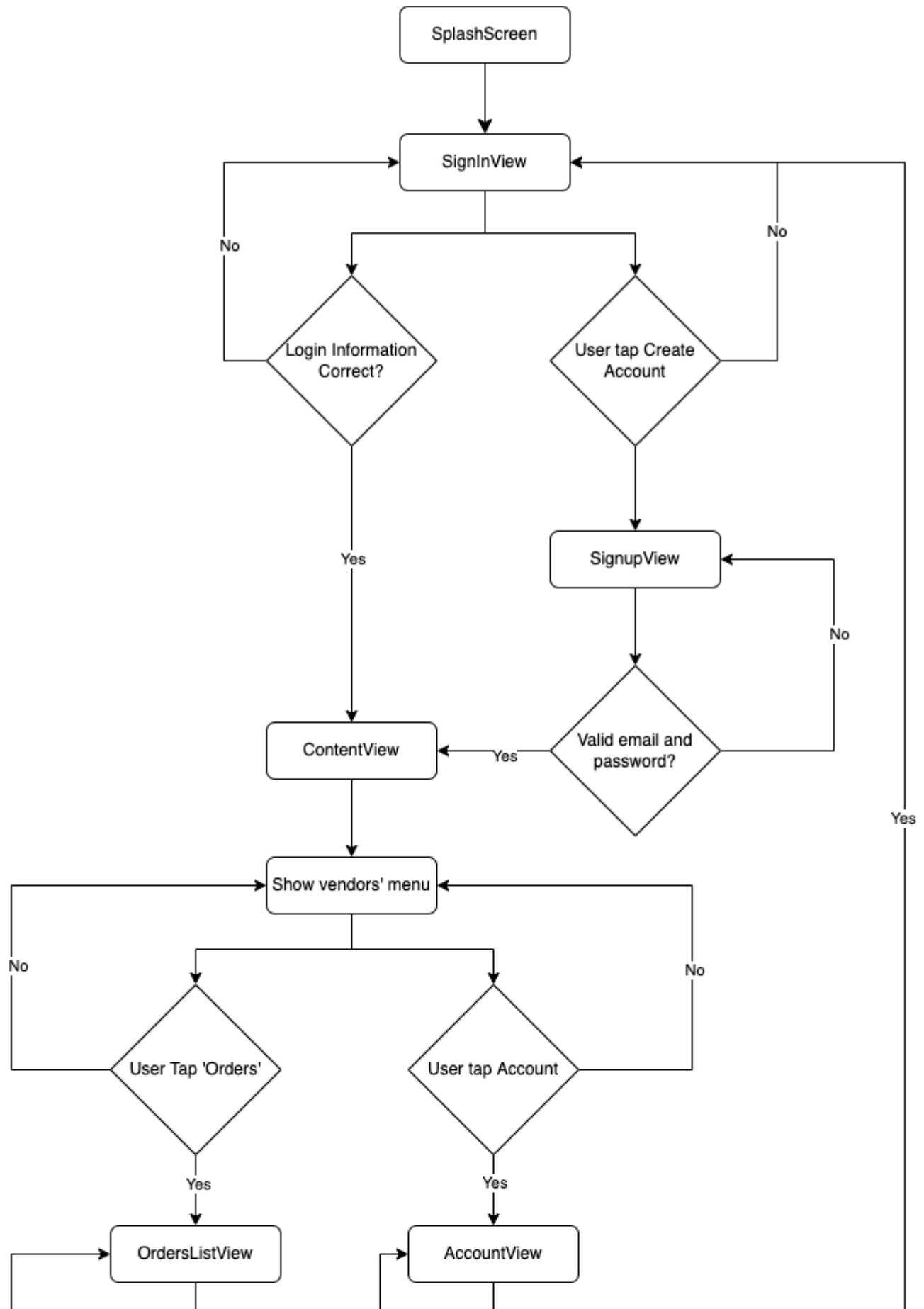
Anything else you want to include:

- N/A

## 3. Application Screenshots/GIF/Video

Please see `part-2.mov` (Part 2 of the Video Presentation) for the app demo video.

## 4. Application Flow (Diagram)



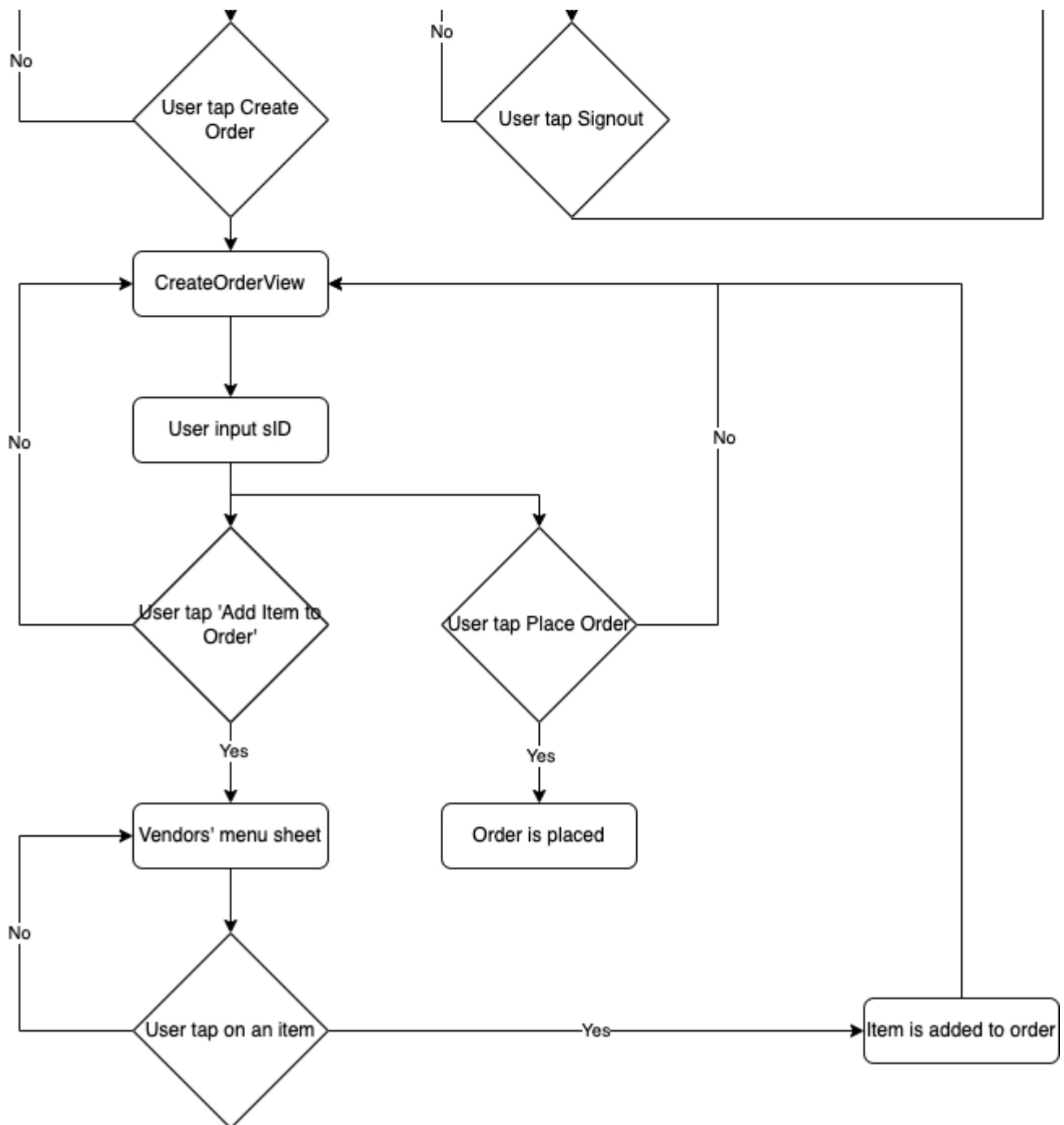


Figure 2: Diagram Flow

## 5. Technologies



Figure 3: Swift

- Swift



Figure 4: SwiftUI

- SwiftUI



Figure 5: SDWebImage and SDWebImageSwiftUI

- SDWebImage and SDWebImageSwiftUI
  - Link: <https://github.com/SDWebImage/SDWebImageSwiftUI>
  - Description: To render the animated GIF as a splash screen

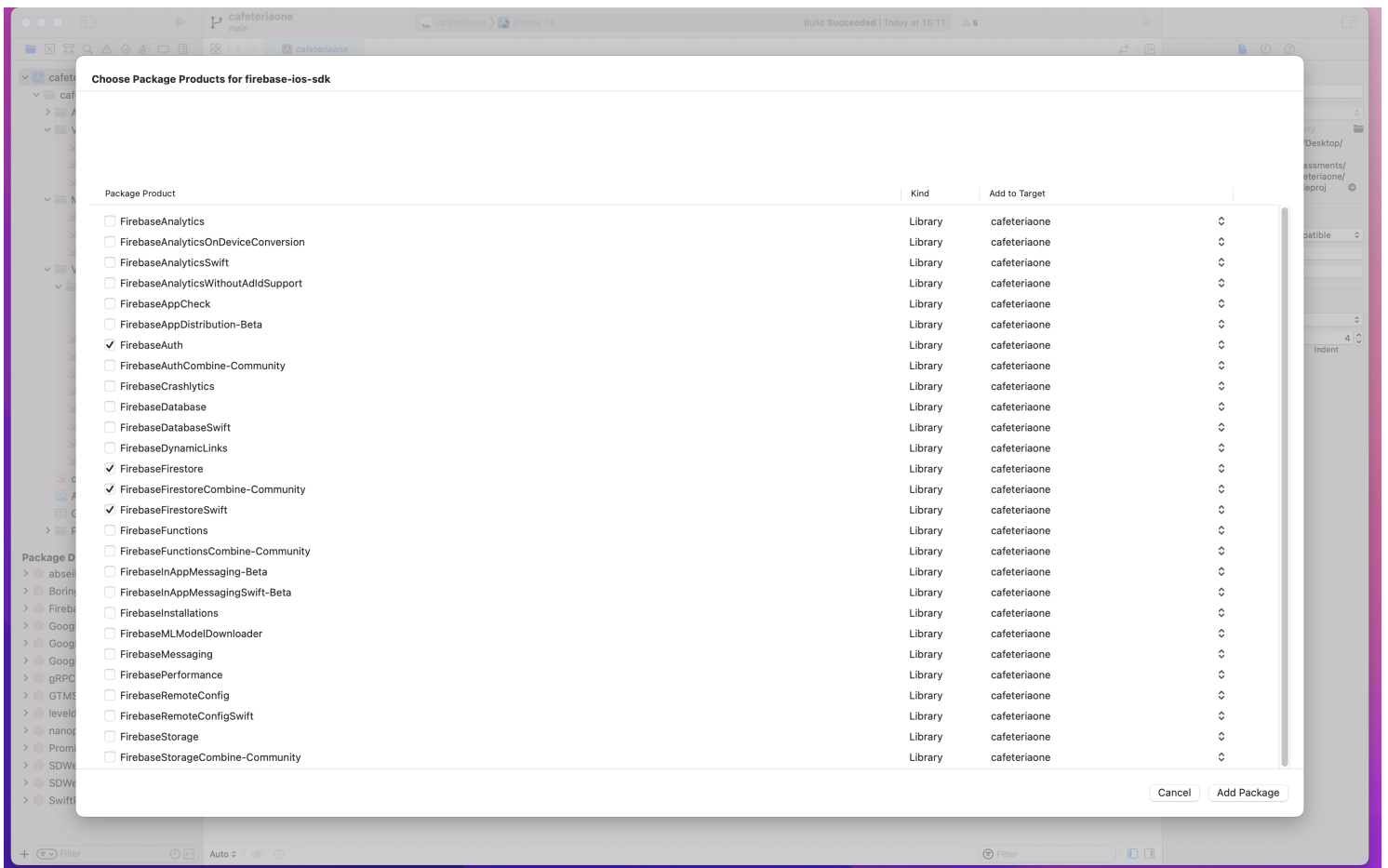


Figure 6: Firebase

- Firebase
  - Link: <https://github.com/firebase/firebase-ios-sdk>
  - Description: To store the app database, as well as user authentication
  - Firebase libraries used:
    - FirebaseAuth
    - FirebaseFirestore
    - FirebaseFirestoreCombine-Community
    - FirebaseFirestoreSwift

## 6. Known Bugs/Problems

The database should be better linked:

- All users query the same `Orders` collection. Meaning all accounts see the same `Orders` list.
- For instance, `Orders` collection has 10 documents. User1 will see all 10 documents, as well as User2, User3, User4, and so forth.

User account balance value is not safeguarded:

- Ordering food doesn't deduct from the user's balance.

No visual cue when successfully Sign Up:

- When the user registers their account, there is no indication whether they have succeeded or failed.

## 7. Competitors

There are no competitors since this is the only app for cafeteria food ordering. An internal app used inside the RMIT VN SGS Campus.

There isn't any *killer feature(s)*. It's just a regular iOS app, there isn't any machine learning applied or whatever. However, the app has a unique idea to it. A new way to order food & purchase.

## 8. Project Responsibilities

Team Name: Random Group 5

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Member	Contribution
Nguyen Trong Thanh (s3818993)	50%
Do Ha Minh Long (s3634734)	30%
Nguyen Minh Quang (s3878631)	20%