



CS426 - Mobile Device Application Development

MIDTERM PROJECT

Report

Student Information

- Name: Vương Quang Việt Tùng
- Student ID: 21125145

Project Self Assessment

- Self-assess your score in the evaluation column
- Replace the app design images with your app screenshots

Requirements	Score	Evaluation
Home Screen		

7:14

Hello Tùng

Điểm thành viên: 6/8

Cà phê sữa 18,000 VNĐ

Cà phê muối 19,000 VNĐ

Americano 35,000 VNĐ

Cappuccino 36,000 VNĐ

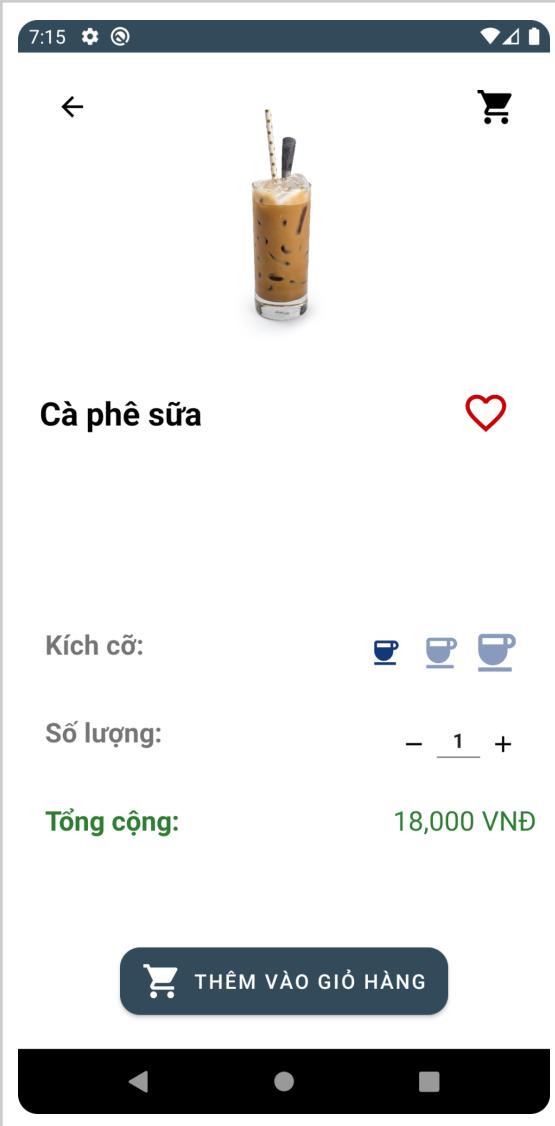
Trang chủ

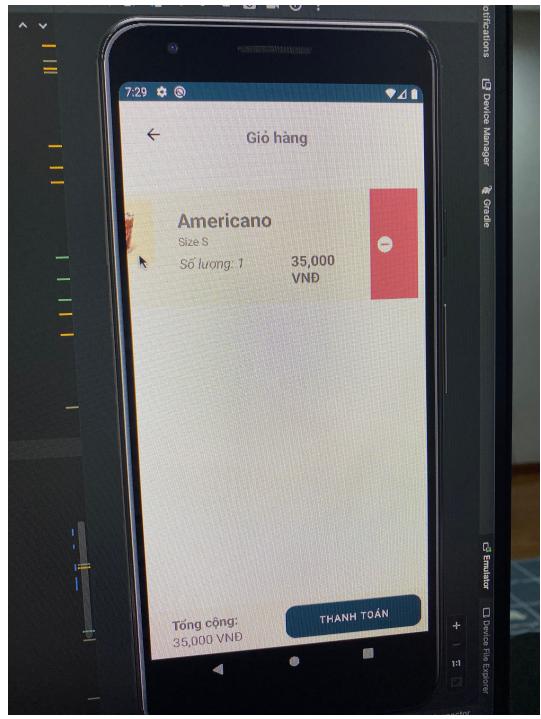
Tích điểm

Đơn hàng

Details

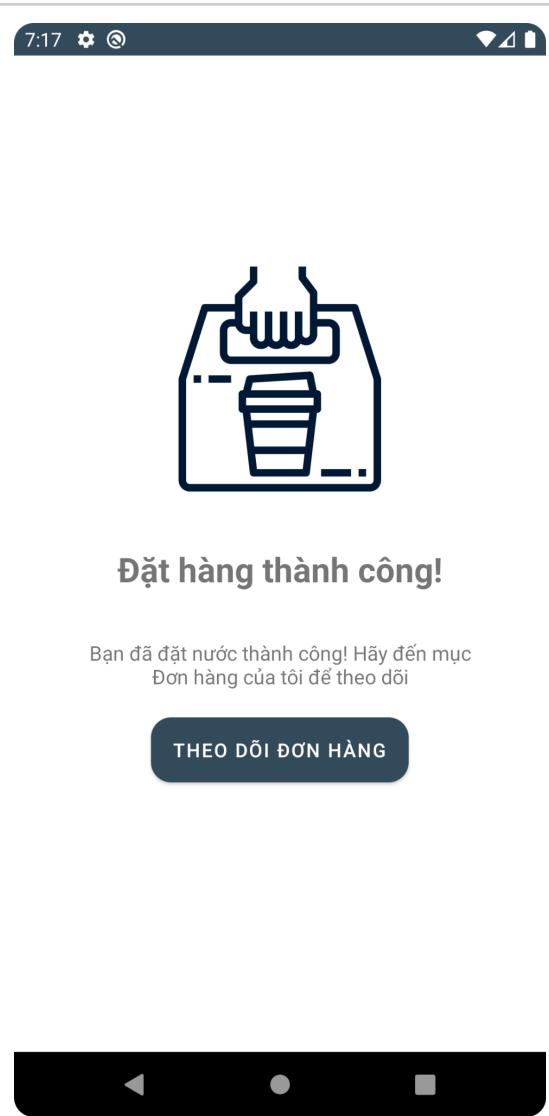
Basic layout	2	2
Header	2	2
Bottom navigation	5	5
Listview Loyalty Card	5	5
Listview Coffee List	5	5
When clicking on one of the coffee cups in the list -> switch to the coffee selection (Details) screen.	5	5

	<p>Allows customizing a cup of coffee at the screen</p> <p>Click on Add to Cart to add the current customized cup to the cart and move to <i>My Cart</i> screen</p> <p>Click on the cart icon to see the current shopping cart (not counting the current customization)</p> <p>Update the total value when there is a change in the quantity, or the corresponding custom.</p> <p>Press the back icon or navigate back to return to <i>Home Screen</i>.</p>	5	3
My Cart			



Basic layout	2	2
Displays a list of selected coffee cups	10	10
Displays the total price of the cups	5	5
Swipe left to remove.	5	5
Click checkout to switch to the Order Success screen	2	2

Order Success

	<p>Basic layout</p> <p>Click on Track My Order to switch to <i>My Orders</i> screen</p>	2	2

The screenshot shows a mobile application interface. At the top, there is a dark header bar with the time "7:17" and several icons. Below this is a navigation bar with the text "Giỏ hàng" (Cart) in the center. Underneath the navigation bar are two tabs: "Đang giao" (Delivery in progress) and "Lịch sử" (History), with "Đang giao" being the active tab. The main content area displays a list of orders:

- ⌚ 25-07-2023 19:08
👤 18 so 7

☕ Cappuccino (size S) x1 36,000 VNĐ
36,000 VNĐ
- ⌚ 25-07-2023 19:16
👤 18 so 7

☕ Cà phê sữa (size S) x1 18,000 VNĐ
18,000 VNĐ

At the bottom of the screen is a blue footer bar with three items: "Trang chủ" (Home), "Tích điểm" (Points), and "Đơn hàng" (Order). Below this is a black navigation bar with three dots.

Basic layout	2	2
Show list of order on going and history	5	5
Move orders from on going to history when an event is triggered (for example, clicking on that order or swiping right)	5	5

The screenshot shows a mobile application interface for a loyalty program. At the top, there is a header bar with the time '7:18' and various icons. Below the header, the word 'Tích điểm' (Loyalty Points) is displayed. The main content area features a dark blue rounded rectangle containing the text 'Điểm thành viên:' followed by '7/8'. Below this, there is a row of eight small coffee cup icons. Underneath, another dark blue rounded rectangle displays 'Điểm tích luỹ:' followed by '18' and a button labeled 'ĐỔI ĐIỂM' (Redeem Points). To the left of this section, there is a smaller card for a purchase: 'Cà phê sữa' (Milk Coffee) from '25-07-2023 19:16' with a '+18 điểm' (18 points) badge. At the bottom, there is a navigation bar with three items: 'Trang chủ' (Home), 'Tích điểm' (selected), and 'Đơn hàng' (Orders). A black footer bar at the very bottom contains three small icons: a left arrow, a dot, and a square.

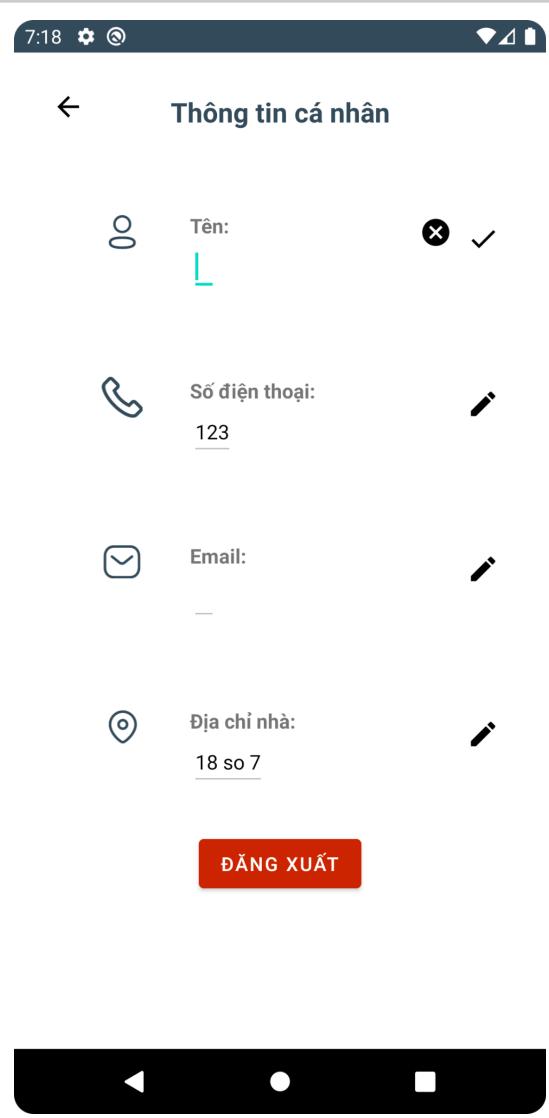
Basic layout	2	2
Loyalty card: each successfully ordered cup will get 1 more stamp, up to 8 stamps.	5	5
When 8 stamps are reached, trigger an event to reset to 0 (for example, click on loyalty card)	5	5
Displays a list of points. With each order reward points based on the total amount of each order.	5	5
Displays the total number of reward points.	5	5
Redeem Rewards		



When clicking on the total reward points, it is possible to exchange points for a new cup of coffee and update the total reward points.

5 5

Profile

	<p>Basic layout</p> <p>Allow editing content when clicking on the allow editing icon</p>	5	5
		5	5
General application requirements			
	Manage application lifecycle, application state	20	15

	Initialize data for the application	10	10
	New features/requirements added by yourself	15	10
Total	Max(150, Total score of all requirements above)	150	153

Extra Features

List all the new features or techniques you used in the project.

So far I've added these extra features

- **Sign in / Sign up (via Firebase Authentication)**
- **Synchronize carts and orders online (via Firebase Firestore)**
- **Using Android Room to save local database**
- **Favorites section (working)**

There will be more in the final product

References

- **Firebase authentication documentation:** <https://firebase.google.com/docs/auth>
- **Firebase Firestore documentation:** <https://firebase.google.com/docs/firestore>
- **Bumptech Glide's library:** <https://github.com/bumptech/glide>
- **Android Room documentation:** <https://developer.android.com/training/data-storage/room?hl=vi>
- **Images of coffee cups I took from various sources, including The Coffee House**