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|  | **CS426- Mobile Device Application Development** |  |

Class: APCS 2020

Date: 01/07/2022 – 31/08/2022

**Final Project**

**Group Report**

**[1]**

**Student ID:** 20125125

**Student’s full name:** Truong Thuy Tuong Vy

**Email:** tttvy20@apcs.fitus.edu.vn

**[2]**

**Student ID:** 20125110

**Student’s full name:** Le Pham Nhat Quynh

**Email:** lpnq20@apcs.fitus.edu.vn

# Project Self-Assessment

In this section, each student should personally evaluate his or her own effort to complete the project. Please list all features that you **partially or fully finish in your project** (you can refer to the suggested features in the specification of this mini project)

|  |  |  |
| --- | --- | --- |
| **Feature**   1. **is student 20125125** 2. **is student 20125110** | **Level of Difficulty**  **1. Very easy**  **2. Easy**  **3. Normal**  **4. Difficult**  **5. Very difficult** | **Level of Completeness**  **(100%)** |
| [1] Homepage: View list of Popular items, Discounts, Categories | 4 | 100% |
| [1] View all products | 4.5 | 100% |
| [1] View product details | 4 | 100% |
| [1] UI Designs | 2.5 | 100% |
| [1] View products by categories | 3.5 | 100% |
| [2] View store list near current location | 3.5 | 100% |
| [2] View direction from current location to any store | 4.5 | 100% |
| [1] Log in | 3 | 100% |
| [1] Sign up | 3 | 100% |
| [1] Remember me function | 3 | 100% |
| [1] Add favorite and show list of each user’s favorite products | 4.5 | 100% |
| [1] Search Bar | 4 | 100% |
| [1] Fill in address function and show list of orders user has made | 4 | 100% |
| [1] Rating product | 4 | 100% |
| [1] Let user comment and see other’s comments | 4 | 100% |
| [2] Call store function | 2.5 | 100% |
| [2] Cart feature | 4.5 | 100% |
| [2] Calculate bill | 4 | 100% |
| [2] Map implement | 3 | 100% |
| [2] Map function enhancement | 3 | 100% |
| [2] Store feature | 3 | 100% |
| [2] Add item to cart | 3.5 | 100% |
| [2] UI Cart design | 3 | 100% |
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# File Structure

Adapter Folder: Including the adapters used for each corresponding Recycler View

* AllProductAdapter
* CartListAdapter
* CategoryAdapter
* DiscountedProductAdapter
* OrderAdapter
* PopularAdapter
* ShowCommentAdapter

Common Folder: Include 1 class: Common to save current user’s information.

Model Folder: Including the Java Class with attributes needed for insertion to the User Interface, such as image id, product’s name, product’s description, etc.

* AllProduct
* Category
* DiscountedProduct
* Rating
* Request
* User

Helper Folder: Including TinyDB class (a class simplifies calls to SharedPreferences in a line of code) and CartManagement class (a class that manage the number of products in Shopping Cart and give signal whenever user add products to cart)

Interface Folder: To design useful class to indicate item click and number of products is changed

Directionhelpers: includes support files to calculate the direction to the store marker (fetch the Url to get direction, decode the polyline, etc.)

Activities:

* AllProducts: Activity that shows all products
* Cart: Activity that shows cart of current user
* IntroInterface: The welcoming interface
* MainActivity: The homepage, including discount announcement, popular items and categories.
* MapsActivity: Show the map which has addresses of our store pinned.
* Order: Activity that show list of user’s orders
* ProductDetail: Show details of each product (Name, price, quantity, description)
* ShowComment: Load comment of each product
* SignIn: Sign in interface
* SignUp: Sign up interface

# App Structure

Language: Java

Integrated development environment: Android Studio

**App Structure:**

Sign in / Sign up interface: Let user log in or register account

Homepage: Show the discount banners, product categories and list of best-selling items. There’s a task bar at the bottom of the homepage, which in it there are four buttons:

All Product: Show all products available

Back Arrow: Return to homepage

Shopping Cart Icon: Go to the shopping cart

Map: Map view with full map feature that has the addresses of our store’s branches near your device location, show the direction from your location to any store that you click on the marker

+ Zoom button

+ Compass

+ Full gestures enabled

Cart: Show list of products that currently in user’s wish-list

Log out: Log out this account

Floating Action Button: Order - To show list of orders user has made

# Major Functions

## Bottom Task Bar

The bottom task bar directs user to other interfaces.

## View Product

User can view top selling items on the homepage or go straight to view all products by clicking the star-shaped icon at the bottom of the task bar in homepage. The popular items are shown by using Horizontal Linear layout in Recycler View, while the list of all products is displayed through Grid layout with two columns in Recycler View.

On each preview of the product, there is an ‘Add’ button that will direct the user to the Product Detail interface.

# View Product In Categories

User can view list of product by categories by click into the wanted category in homepage

# View Order

Users can view list of orders they have made

## Product Detail

Display detailed information of each product, consisting of its name, price, illustration, and brief description.

At the bottom of the interface, there’s an ‘Add to Cart’ button. After selecting the number of products that you want to buy by clicking the ‘Plus’ and ‘Minus’ button to increase and decrease the quantity, user can add the products with their wanted amount to shopping cart for later checkout by clicking the ‘Add to Cart’ button.

# Add Favorite and View Favorite Products

Users can mark a product as their favorite by clicking the heart icon. Then they can view their favorite products by return to homepage and click the Favorite ‘Category’.

# Rating and Add Comment

Users can comment and rate products. Other users can

## Map Function

Map function locates your device location and offers full information of store near your house (Branch name and address). Map provides full function like zoom in-out button, compass, tilt, zoom rotate and all possible gestures.

## Add To Cart and View Cart

Each product has an add to cart button, when it is pressed, the product will be added to user’s cart. User can later view their cart. The products in cart will be saved even when users stop their app.

ChangeNumberListener assists adding object to your cart, with delivery fee 10$ and application fee is always 2% of the total item cost. When your cart is empty, UI will change and show an Empty screen with an Empty inform.

## Call function

Perform a call to the store’s owner using Google call intent

# Advanced Features

Please list in detail all ***advanced features*** in your project.

***Screenshots*** are suitable to illustrate these advanced features.

**Maps direction**

To find to direction to any store that you want to go, just click on the marker and the direction will appear. Also, you can access the detailed function of google map whenever click on any marker, two other options with appear on the right bottom corner (locate the store and find the direction to the store).

# Screenshots

Please insert ***screenshots*** in this section to illustrate ***all main features*** of your project.

Several screenshots and features ***can be the same*** as in Section II. Advanced Features.

A picture containing diagram

Description automatically generatedGraphical user interface, text, application

Description automatically generatedGraphical user interface, application, website

Description automatically generatedA picture containing chart

Description automatically generatedA picture containing application

Description automatically generatedGraphical user interface, text, application, chat or text message

Description automatically generatedA picture containing diagram

Description automatically generated

Graphical user interface, application

Description automatically generated

Graphical user interface, application

Description automatically generated

Map

Description automatically generatedIcon

Description automatically generated with low confidence

# Bubble chart Description automatically generated with low confidence

Graphical user interface, application

Description automatically generated

# References

You should list all source codes and/or references that you use in your project in this section.

Any code fragments or libraries that are not yours ***MUST be explicitly declared*** in this section.

If you fail/forget to declare those “inherited” resources, you will be considered “cheating”!

………

1. Glide: <https://github.com/bumptech/glide>
2. TinyDB: <https://drive.google.com/file/d/12r7oD6mJ3ZjFQfoq1g6uTyRzKqh0kvwN/view>
3. Source Codes: <https://youtu.be/9nWcPPHBzMk>
4. Direction: <https://www.geeksforgeeks.org/how-to-generate-route-between-two-locations-in-google-map-in-android/>
5. Maps: https://developers.google.com/maps/documentation/android-sdk/overview