## Monash Merchant Online Shopping

###### Project Overview

This project is the Monash Merchant Online Shopping program, providing a simple online shopping experience. Users can browse products, add them to their shopping cart, and proceed to checkout.

###### Main File Structure

app.py: Main program entry point

Login.py: Login control class, handles user login and permission verification

AdminController.py: Admin control class, handles admin operations and product management

CustomerController.py: Customer control class, handles user shopping and product browsing

Admin.py: Admin class, manages product addition, deletion, and updating operations

Customer.py: Customer class, manages user shopping carts and purchase behavior

ShoppingCart.py: Shopping cart class, manages products in the user's shopping cart

Inventory.py: Inventory class, manages product inventory in the system

UserInterface.py: User interface class, used to display user interfaces

UserInputError.py: User input error exception class

###### **Features**

**Admin Features:**

Add Product: Admins can add new products to the system and set product attributes.

Delete Product: Admins can delete existing products from the system.

Update Product Information: Admins can update product information such as name, brand, description, and inventory.

**Customer Features:**

Browse Products: Customers can browse all products in the system and view product details.

Add to Cart: Customers can add products to their shopping cart and select the quantity to purchase.

View Shopping Cart: Customers can view the products added to their shopping cart and the total price.

Checkout: Customers can select products from their shopping cart for checkout and complete the payment process.

###### **Usage Instructions**

1. Run the app.py file to start the program. Press ‘1’ to login or press ‘q’ to quit.

2. After press ‘1’ ,the program will display the login interface, where users enter their email and password as prompted.

3. After successful login, the corresponding menu options will be displayed based on user permissions.

4. Users can input the corresponding number or operation according to the menu options to execute the corresponding function.

5. After logging in as an admin, the menu options typically include functionalities related to managing the inventory and products.

* Add Product: Enter "1" to add a new product to the inventory. This option allows the admin to input details such as the product name, brand, description, quantity, and prices for both regular and member customers.
* Delete Product: Enter "2" to delete an existing product from the inventory. This option prompts the admin to enter the ID of the product they wish to delete, and upon confirmation, the selected product will be permanently removed from the inventory.
* Update Product Information: Enter "3" to update various attributes of existing products. The admin can choose to update the name, brand, description, quantity, and prices (both regular and member prices) of any product in the inventory.
* Browse Items: Enter "4" to browse through the list of available products in the inventory. This option displays a paginated list of products, showing details such as the product ID, name and quantity
* Logout: Enter "q" to log out of the system and return to the login screen. Choosing this option will terminate the admin session and require re-authentication to access admin functionalities again.

1. After logging in as a user, the menu options typically include functionalities related to browsing products, managing your shopping cart, and completing orders.

* Browse Products: Enter "1" to browse through the list of available products in the inventory. This option displays a paginated list of products, showing details such as the product ID, name and prices.
* View Shopping Cart: Enter "2" to view the items currently added to your shopping cart. This option displays a list of products along with their respective quantities and prices. Additionally, the total price of all items in the cart is displayed.
* Checkout: Enter "3" to proceed to checkout and complete your order. This option allows you to finalize your purchase by confirming the items in your shopping cart, providing payment details, and submitting your order for processing.
* Logout: Enter "q" to log out of your account and return to the login screen. Choosing this option will terminate your session and require re-authentication to access customer functionalities again.

1. Users can exit the program at any time by entering "Q" or selecting the exit option.