Complex Engineering Activity

ONLINE SHOPPING CART

PROBLEM DESCRIPTION:

Develop an object-oriented programming application in python. An online shopping cart is a virtual shopping trolley, where shoppers can put all of their want-to-buy products in, review them to make adjustments in quantity, product attributes, etc. and remove them before or during the checkout if they change their mind.
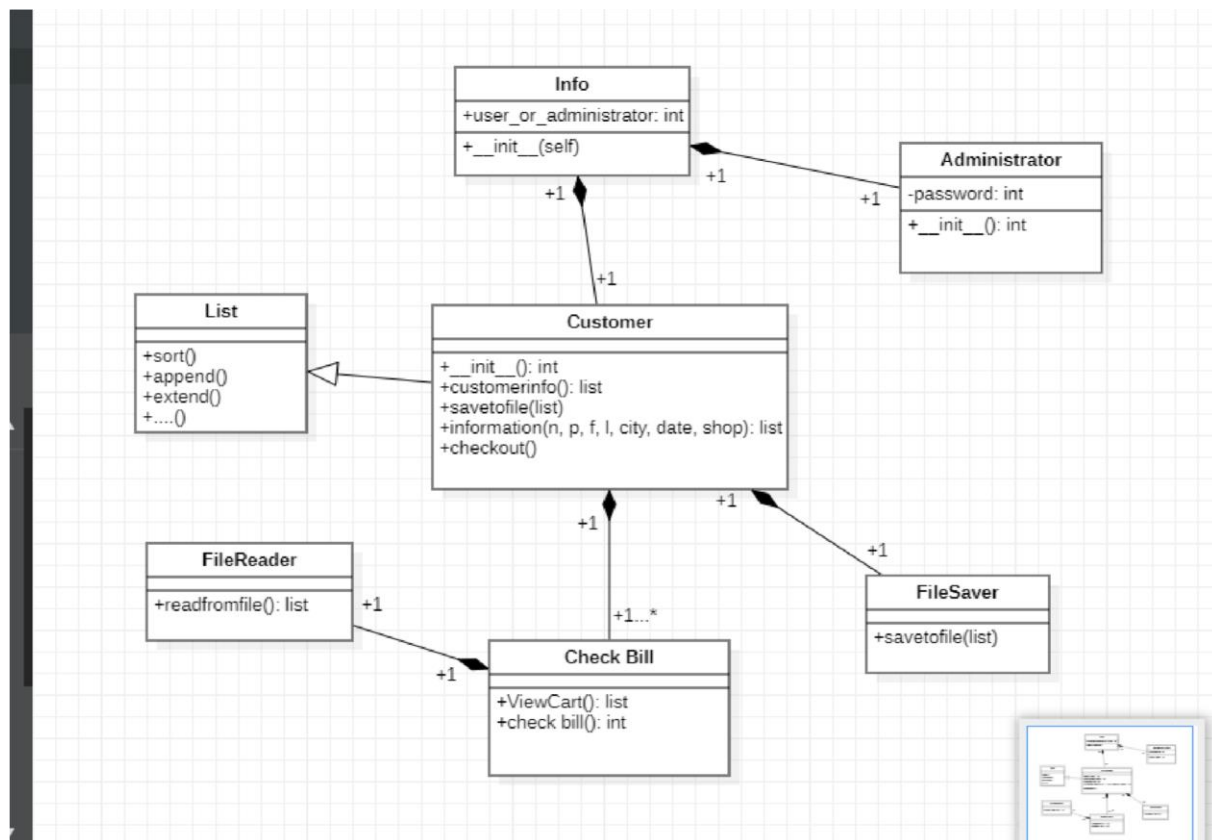
Distinguishing features are as follows:

- The online shopping cart allows the user to access in two modes as a customer or as an admin.
- Class **info** will ask the user if he is the admin or customer.
- **In customer mode**,the user is allowed to create an account with some basic information like username,password,first and last names,address etc. Customers should be able to view the list of products and their relevant information from the virtual shopping shelves, add products to the cart, remove products from the cart, and view the cart with product names, prices, quantities, total price, etc., checkout, and view shopping history.
- The **admin panel** requires a password to be accessed. The admin mode maintains a record of all account holders.
- We have **FileSaver** class that saves the record of the customer. Another class named **FileReader** will read the file before saving it.
- Class **Check_bill** can view the cart and can calculate the bill of the customer.
- Customer is a list which means there is an inheritance relationship between them and the customer inherits the different functions of the list.

FLOW OF OUR PROJECT:

After running the program, the user will get two options, for **admin** the user will press 1, and for the **customer**, the user will press 2. By pressing 1, it means the user is the admin. The admin panel requires a password to be accessed. It maintains the record of all account holders. The admin will maintain product information, account holder's list, current cart details, and shopping history for each customer will be stored in a file. By pressing 2,the user is a customer. The customer is allowed to create an account with some basic information like username, password, first and last names, address, city, etc. Customers should be able to view the list of products and their relevant information from the virtual shopping shelves, add products to the cart, remove products from the cart, and view the cart with product names, prices, quantities, total price, etc., checkout, and view shopping history.

UML DIAGRAM:

MOST CHALLENGING PART FOR US :

The most challenging part was creating code for individual customers' text files.

ANY NEW THING LEARNT IN PYTHON WHILE WORKING ON THE PROJECT:

1. We've learned the concept of filing and its use.
2. Use of Classes for working efficiently.
3. Working in a group polished our skills and knowledge by sharing thoughts and ideas.

FUTURE EXPANSIONS:

The project in the future can be enhanced by adding GUI, also more than ten products can be added, stock update information can also be displayed and feedback on products can

```
you entered correct password

            Enter 1 or 2
            1_If you want to read all products
            2_If you want to write something in product file
Enter 1 or 22

            1_remove any product
            2_add any product
            3_change something in the product list
Enter 1 or 2 or 31
All the products in the shop:
- LED SUBMERSIBLE LIGHT
- BOOKENDS
- VEGETABLE CHOPPER
- NECK MASSAGER
- FACIAL CLEANSER
- BACK CUSHION
- PORTABLE BLENDER
- BLUETOOTH
- SMART WATCH
- NAIL POLISH
Enter product name which you want removenail polish
******************PRODUCT HAS BEEN REMOVED SUCCESSFULLY:)***************************
```

PASSWORD OF ADMINISTRATOR PANEL IS: 5674328

```
you entered correct password

            Enter 1 or 2
            1_If you want to read all products
            2_If you want to write something in product file
Enter 1 or 22

            1_remove any product
            2_add any product
            3_change something in the product list
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- BACK CUSHION
- PORTABLE BLENDER
- BLUETOOTH
- SMART WATCH
- NAIL POLISH
Enter product name which you want removenail polish
******************PRODUCT HAS BEEN REMOVED SUCCESSFULLY:)***************************
```

```
Enter what do you wantback cushion
Enter the quantity2
Enter contact_no033674328
Please check your data:
your name SAIMA
your password 345
your Last name Raza
your address 1-e 3/3
your city karachi
Today's Date 12-12-2021
Contact no: 33674328
You have selected all these products
Product NAIL POLISH
Quantity of that product 3
Product BACK CUSHION
Quantity of that product 2
if you want to buy all these products press 1
if you want to remove some products from your cart press 2
otherwise press 3
1
Your total bill is here 4000
Do you want to watch your shopping history
yes or nono
********************************THANKS FOR COMING:)**********************************
```

```
Enter 1 if you are administrator
Enter 2 if you are customer
2
Product: LED SUBMERSIBLE LIGHT  Price: 4000     Company: Havells     Quantity: 1
Product: BOOKENDS    Price: 5000     Company: Calligaris     Quantity: 1
Product: VEGETABLE CHOPPER  Price: 1000     Company: Icon Chef  Quantity: 1
Product: NECK MASSAGER  Price: 600  Company: Derma  Quantity: 1
Product: FACIAL CLEANSER    Price: 400  Company: Derma shine     Quantity: 2
Product: BACK CUSHION    Price: 2000     Company: JIA GUO     Quantity: 1
Product: PORTABLE BLENDER   Price: 12000    Company: Dawlance   Quantity: 2
Product: BLUETOOTH  Price: 6000     Company: Dell    Quantity: 1
Product: SMART WATCH    Price: 70000    Company: sveston     Quantity: 1
Enter your namesaima
Enter the password345
Enter last nameRaza
Enter your address1-e 3/3
Enter your citykarachi
Enter date12-12-2021
Enter how much products do u want to buy
2
Enter what do you wantnail polish
Enter the quantity3
Enter what do you wantback cushion
```