CEP

BATCH 2020-21

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ROLL NO:	CS - 052 ,CS-079,CS-042
CLASS/SEC:	Section - C
COURSE NAME	OBJECT OREINTED PROGRAMMING
COURSE CODE	CS-116
SUBMITTED TO	Miss Fouzia yasir

DEPARTMENT OF COMPUTER & INFO SYSTEM ENGINEERING
NED UNIVERSITY OF ENGINEERING & TECHNOLOGY

DEPARTMENT OF COMPUTER & INFORMATION SYSTEMS ENGINEERING BACHELORS IN COMPUTER SYSTEMS ENGINEERING
Course Code: CS-116

Course Title: Object Oriented Programming

Complex Engineering Problem

FE Batch 2020, Spring Semester 2021

Grading Rubric

TERM PROJECT

Group Members:

Student No.	Name	Roll No.
S1	Hunzala Mushtaq	CS –052
S2	AAYAT ALI	CS-042
S3	TEHREEM FATIMA	CS-079

CRITERIA AND SCALES				Marks Obtained S1	S2	S3
Criterion 1: Does the application meet the desired specifications and produce the desired outputs? (CPA-1, CPA-3)						
1	2	3	4			
The application does not meet the desired specifications and is producing incorrect outputs.	The application partially meets the desired specifications and is producing incorrect or partially correct outputs.	The application meets the desired specifications but is producing incorrect or partially correct outputs.	The application meets all the desired specifications and is producing correct outputs.			
Criterion 2: How well is the code organization?						
1	2	3	4			
The code is poorly organized and very difficult to read.	The code is readable only to someone who knows what it is supposed to be doing.	Some part of the code is well organized, while some part is difficult to follow.	The code is well organized and very easy to follow.			
Criterion 3: How friendly is the application interface? (CPA-1, CPA-3)						
1	2	3	4			
The application interface is difficult to understand and use.	The application interface is easy to understand and but not that comfortable to use.	The application interface is very easy to understand and use.	The application interface is very interesting/ innovative and easy to understand and use.			
Criterion 4: How does the student performed individually and as a team member? (CPA-2, CPA-3)						
1	2	3	4			

The student did not work on the assigned task.	The student worked on the assigned task, and accomplished goals partially.	The student worked on the assigned task, and accomplished goals satisfactorily.	The student worked on the assigned task, and accomplished goals beyond expectations.			
Criterion 5: Does the report adhere to the given format and requirements?						
1	2	3	4			
The report does not contain the required information and is formatted poorly.	The report contains the required information only partially but is formatted well.	The report contains all the required information but is formatted poorly.	The report contains all the required information and completely adheres to the given format.			
			Total Marks:			

BAKERY

KEY FEATURES OF THE APPLICATION:

1. This application is cli based
2. Required any python compiler such as IDLE or VScode will be very suitable
3. This application contains 10 products
4. No limits on users' storage
5. Data base system is used sqlite3
6. OOP paradigms are extensively used in this application
7. when user forgot the password, administrator sends the 6-digit code.
8. customer can check the info of all products (detail of cakes)
9. user can see her/his info that he/she entered while making an account.
10. customer can see his previous order.
11. shopping history database contains all the previous of all the customers.
12. user database contains information of all the users stored in a table.
13. Libraries used in this application are:
    - Sqlite3
    - Smtplib
    - Django (Another Application)
14. When User forget password it send code using the smtplib a python builtin library server Email : and Password :

Django:

This application is also on web version using Django and A lot features with user authorization and a lot more with categories class

Link : ***http://hanzla.pythonanywhere.com/***

Drawbacks:

1. The user must have to select view cart option before check out, otherwise the bill calculated will be zero.

2. The product table will be updated once when the user enters products in his cart.

3. Method of product class (create _table) should be call once.

4. Administrator can only update the product table once the items are out of stock or 0.

Flow of Application

For Developers:

- Instantiating user class.
- Takes input [YES/NO] whether to run as an administrator [YES] or customer [NO].
  - if he wants to run as administrator [YES], will take email address and password and check it whether it is correct or not, by comparing it with hard coded email and password.
  - if he successfully login, then he can see users' information by pressing (1) and can update the products' stock by pressing (2).
- If he wants to run as the customer [NO], then he will be asked that he has account or not[Y/N].
  - if [Y] then login method is called, where username and password will be taken as input and we checked from database
    - If user enters wrong info, then he can try again by pressing (1)
    - Or in case he forgot the password he will asked to enter (2), then an auto generated 6-digit code will be send to his email address, then he has to verify his code
    - If he didn't verify his code, then the code will be send again.
    - when user successfully login, products will be displayed
  - if [N], then user will be asked to fill out his info to create an account. HIS ACCOUNT HAS BEEN CREATED, and a database is created containing all the users' info that signed in
    - login function is called and part (A) will be proceeded (mentioned above)
- Products are displayed from the table of database which contain all the products.
- from the displayed product table, he can see the info or any of the products(cakes), by entering product id.

- Then shopping cart class has been instantiated, and following methods are called:
    - **Add items**
        - user can add as many products as he wants.
        - He can add items by entering the product id
        - He will be asked to enter the quantity.
    - **Remove items**
        - User can remove quantity of the product from his current shopping cart.
        - For removing an item, user should enter he correct name of the cake.
- Now he can use the following methods
    - **View cart**
        - his current cart will be displayed to him
        - and he can also add or remove products from his cart.
        - If he chose any of them, add items or remove items methods will be called.
    - **Check out**
        - In check out function, the user can again remove the products if he wants to.
        - When he checked out, the date and time will be printed on screen.
- Lastly a method (main) will be called to print the welcome messages.
- He can see his previous order by entering his username.
    - All the previous orders are now displayed from the database (shopping history).

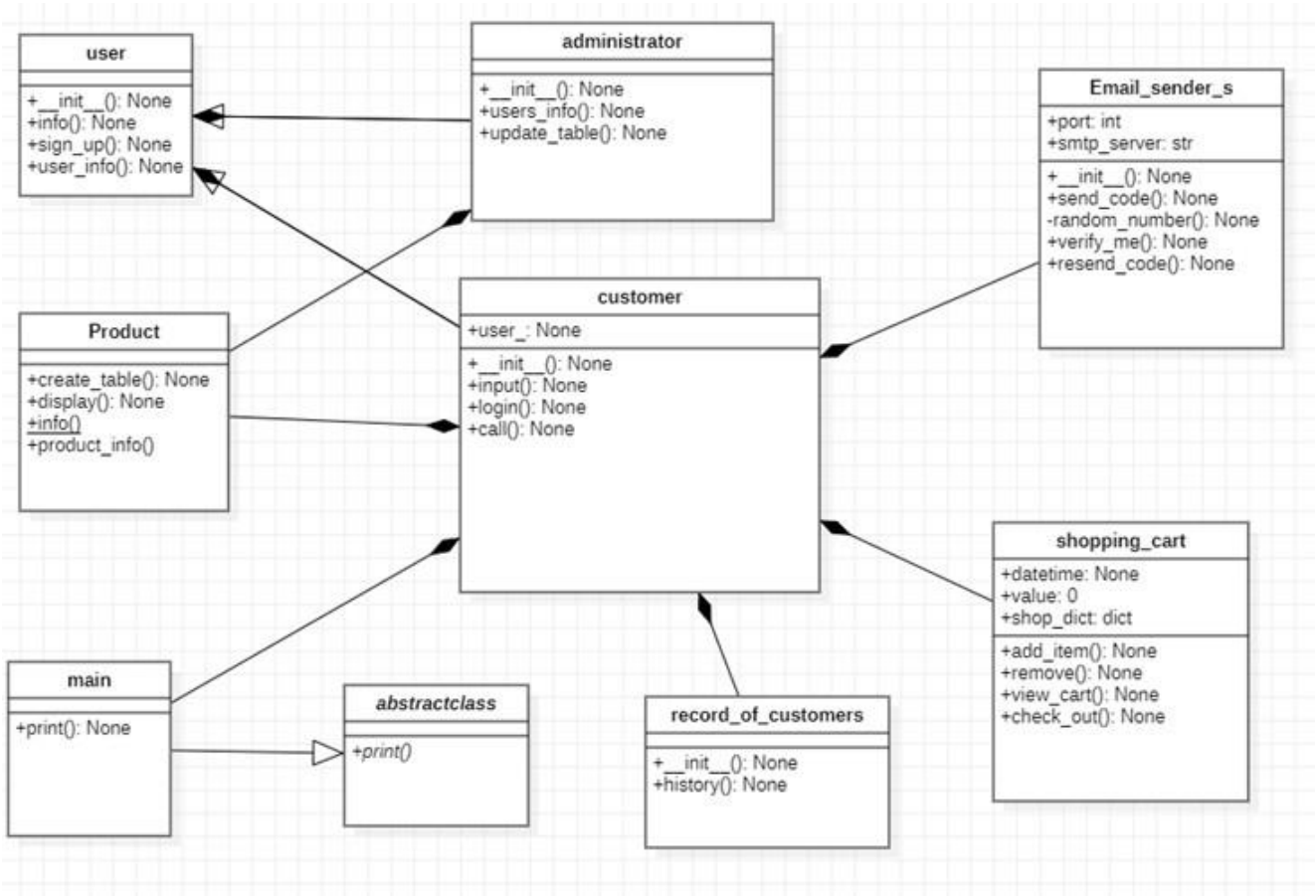
Challenging part of the code

The most challenging is shopping cart class because of its different method like add to cart, remove from cart.

We have to maintained a single dictionary (which acts as a current cart) while we are calling add item and remove item methods on it.

And at the time of check out, we are using the same dictionary to keep the record of the customer order, so that later he can see them.

UML Class Diagram:



TEST RUNs 1

```
------------------------------------------------------------
DO YOU WANT TO LOGIN AS ADMINISTRATOR[YES/NO]:NO
------------------------------------------------------
DO YOU HAVE AN ACCOUNT[Y/N]:N
CREATING  ACCOUNT
       PLEASE FILL OUT GIVEN INFO..
Enter your first name:aayaat
Enter last name:ali
Enter user name for your account:aayaatali
Enter email address:tehreemf079@gmail.com
Enter password:dfsfd
              ACCOUNT HAS BEEN CREATED..!!!
================================
LOGIN TO YOUR ACCOUNT
---------------------------------
Enter email:tehreemf079@gmail.com
Enter password:dfsfd
======================================== SUCCESSFULLY LOGIN....========================================

PRODUCT_ID            CAKE_FLAVOUR                QUANTITY              PRICE                 STOCK
------------          -------------               ---------------       -------------         ------------
1                     Kitkat Cake                 2.5 Pound             1400.00               20
2                     Chocalate Heaven Cake       2.5 Pound             1400.00               20
3                     Galaxy Cake                 2.5 Pound             1400.00               20
4                     Coffee Cake                 2.5 Pound             1200.00               20
5                     Nutella Cake                2.5 Pound             1500.00               20
6                     Red Velvet Cake             2.5 Pound             1200.00               20
7                     Black Forest Cake           2.5 Pound             1100.00               20
8                     Belgian Chocolate           2.5 Pound             1400.00               20
9                     Caramel Crunch Cake         2.5 Pound             1000.00               20
10                    Bombay Bakery Coffee Cake   2.5 Pound             1000.00               20

See further info. of CAKE :

select product_id :2
-----------------------------------------------------------------------------------------------------------------------
A decadent chocolate cake with smooth chocolate
-----------------------------------------------------------------------------------------------------------------------

do you want to see more infoENTER HERE[Y/N]:Y
See further info. of CAKE :

select product_id :10
-----------------------------------------------------------------------------------------------------------------------
Our take on famous Bombay coffe cake,coffee based spomge with coffee frosting
-----------------------------------------------------------------------------------------------------------------------

do you want to see more infoENTER HERE[Y/N]:N
========================================================================
ADD TO CART[Y/N]:Y
------------------------------------------------------------
Enter CAKE ID:2
Enter QUANTITY:5
------------------------------------------------------------
ADD TO CART[Y/N]:Y
------------------------------------------------------------
Enter CAKE ID:10
Enter QUANTITY:6
------------------------------------------------------------
ADD TO CART[Y/N]:N
------------------------------------------------------------
============================================================
{'Chocalate Heaven Cake': ['1400.00', 5, 7000.0], 'Bombay Bakery Coffee Cake': ['1000.00', 6, 6000.0]}
REMOVE FROM CART[Y/N]:N
------------------------------------------------------------
```

```
-----------------------------------------------------------------
-------------------------------------------------------------------
DO YOU WANT TO SEE YOUR CART[Y]
            OR
DO YOU WANT TO CHECK OUT[C]:Y
-------------------------------------------------------------------
=========================================================================
CAKE NAME                              UNIT PRICE                          QUANTITY                            TOTAL PRICE
--------------------           --------------------                  ----------------------              -------------------
Chocalate Heaven Cake                  1400.00                             5                                   7000.0
Bombay Bakery Coffee Cake              1000.00                             6                                   6000.0
-------------------------------------------------------------------------------------------------------------------------------
TOTAL BILL IS 13000.0 RS

WANT TO ADD OR REMOVE[Y]
            OR
ELSE YOU CAN CHECK OUT[C]:Y
=========================================================================
ADD TO CART[Y/N]:N
-----------------------------------------------------------
=================================================================
{'Chocalate Heaven Cake': ['1400.00', 5, 7000.0], 'Bombay Bakery Coffee Cake': ['1000.00', 6, 6000.0]}
REMOVE FROM CART[Y/N]:Y
-------------------------------------------------------------
Enter the CAKE NAME:Bombay Bakery Coffee Cake
Number of CAKES:3
-------------------------------------------------------------
REMOVE FROM CART[Y/N]:N
-------------------------------------------------------------
=========================================================================
CAKE NAME                              UNIT PRICE                          QUANTITY                            TOTAL PRICE
--------------------           --------------------                  ----------------------              -------------------
Chocalate Heaven Cake                  1400.00                             5                                   7000.0
Bombay Bakery Coffee Cake              1000.00                             3                                   3000.0
-------------------------------------------------------------------------------------------------------------------------------
TOTAL BILL IS 10000.0 RS
WANT TO ADD OR REMOVE[Y]
            OR
ELSE YOU CAN CHECK OUT[C]:C
-----------------------------------------------------------------------
YOU ARE NOW CHECKING OUT..
        DO YOU STILL WANT TO REMOVE SOMETHING FROM THE CART?[Y/N]:N
*************************************************************
Enter CREDIT CARD Number:1312314234
=============================================================
                        CHECKING OUT!!!
-------------------------------------------------------------------
TOTAL BILL IS 10000.0 RS
-------------------------------------------------------------------
YOUR CHECKING OUT DATE AND TIME IS:            2021-08-13 02:47:03.039625

=====================================================================
-------------------------------------------------------------------
DO YOU WANT TO SEE YOUR PREVIOUS ORDERS:[Y/N]N
                         ============= THANKYOU FOR VISITING OUR BAKERY ===========
                         ================== DO VISIT AGAIN =======================
                         ================= HAVE A GOOD DAY.... :)))===============
```

TEST RUNs 2

```
------------------------------------------------------------
DO YOU WANT TO LOGIN AS ADMINISTRATOR[YES/NO]:NO
------------------------------------------------
DO YOU HAVE AN ACCOUNT[Y/N]:Y
================================
LOGIN TO YOUR ACCOUNT
---------------------------------
Enter email:aqeelahmed.aa708@gmail.com
Enter password:hunzalaa
email or password is incorrect...
          1.TRY AGAIN
          2.FORGOT PASSWORD

PLEASE ENTER [1/2]:2
6-DIGIT CODE HAS BEEN SENT TO YOUR EMAIL
Success
YOU HAVE TO VERIFY YOUR CODE....
Enter the 6 digit Code 159383
**************************** VERIFIED ****************************************
PRODUCT_ID          CAKE_FLAVOUR                QUANTITY              PRICE          STOCK
------------        ------------                --------------        ------------   -----------
1                   Kitkat Cake                 2.5 Pound             1400.00        18
2                   Chocalate Heaven Cake       2.5 Pound             1400.00        15
3                   Galaxy Cake                 2.5 Pound             1400.00        20
4                   Coffee Cake                 2.5 Pound             1200.00        18
5                   Nutella Cake                2.5 Pound             1500.00        2
6                   Red Velvet Cake             2.5 Pound             1200.00        13
7                   Black Forest Cake           2.5 Pound             1100.00        14
8                   Belgian Chocolate           2.5 Pound             1400.00        16
9                   Caramel Crunch Cake         2.5 Pound             1000.00        23
10                  Bombay Bakery Coffee Cake   2.5 Pound             1000.00        17


See further info. of CAKE :

select product_id :5
-------------------------------------------------------------------------------------------------------------------------
Richly flavored chocolate cake lathered in a delicious Nutella icing
-------------------------------------------------------------------------------------------------------------------------

do you want to see more infoENTER HERE[Y/N]:N
=========================================================================
ADD TO CART[Y/N]:Y
-----------------------------------------------------------
Enter CAKE ID:5
Enter QUANTITY:3
-----------------------------------------------------------
2 IS AVAILABLE...
TRY AGAIN....BY PLACING YOUR ORDER...
=========================================================================
ADD TO CART[Y/N]:Y
-----------------------------------------------------------
Enter CAKE ID:6
Enter QUANTITY:3
-----------------------------------------------------------
ADD TO CART[Y/N]:Y
-----------------------------------------------------------
Enter CAKE ID:5
Enter QUANTITY:2
-----------------------------------------------------------
ADD TO CART[Y/N]:N
-----------------------------------------------------------
```

```
============================================================
{'Red Velvet Cake': ['1200.00', 3, 3600.0], 'Nutella Cake': ['1500.00', 2, 3000.0]}
REMOVE FROM CART[Y/N]:Y
------------------------------------------------------------
Enter the CAKE NAME:Red Velvet Cake
Number of CAKES:1
------------------------------------------------------------
REMOVE FROM CART[Y/N]:N
------------------------------------------------------------
------------------------------------------------------------
DO YOU WANT TO SEE YOUR CART[Y]
           OR
DO YOU WANT TO CHECK OUT[C]:Y
------------------------------------------------------------
============================================================
CAKE NAME                       UNIT PRICE                      QUANTITY                        TOTAL PRICE
--------------------            --------------------            ----------------------          --------------------
Red Velvet Cake                 1200.00                         2                               2400.0
Nutella Cake                            1500.00                         2                               3000.0
------------------------------------------------------------------------------------------------------------------------
TOTAL BILL IS 5400.0 RS

WANT TO ADD OR REMOVE[Y]
           OR
ELSE YOU CAN CHECK OUT[C]:C
------------------------------------------------------------
============================================================
{'Red Velvet Cake': ['1200.00', 2, 2400.0], 'Nutella Cake': ['1500.00', 2, 3000.0]}
REMOVE FROM CART[Y/N]:N
------------------------------------------------------------
**********************************************************
Enter CREDIT CARD Number:4234234234324
==========================================================
                      CHECKING OUT!!!

------------------------------------------------------------
TOTAL BILL IS 5400.0 RS
------------------------------------------------------------
YOUR CHECKING OUT DATE AND TIME IS:             2021-08-13 04:46:46.259465

============================================================
------------------------------------------------------------
DO YOU WANT TO SEE YOUR PREVIOUS ORDERS:[Y/N]Y
Enter your EMAIL:aqeelahmed.aa708@gmail.com
------------------------------------------------------------
CUSTOMER NAME                   DATE AND TIME
============================================================
aqeelahmed.aa708@gmail.com                      2021-08-13 04:35:52.121724
============================================================
                  CAKE ORDERED
               Coffee Cake
               Kitkat Cake
  ------------------------------------------------------
                                          TOTAL BILL
                                          5200.0RUPEES
==============================================================
aqeelahmed.aa708@gmail.com                      2021-08-13 04:41:04.411564
==============================================================
                    CAKE ORDERED
                Caramel Crunch Cake
------------------------------------------------------------
                                          TOTAL BILL
                                          17000.0RUPEES
==============================================================
aqeelahmed.aa708@gmail.com                      2021-08-13 04:46:46.259465
==============================================================
                    CAKE ORDERED
                Nutella Cake
------------------------------------------------------------
                                          TOTAL BILL
                                          5400.0RUPEES
==============================================================
aqeelahmed.aa708@gmail.com                      2021-08-13 04:46:46.259465
==============================================================
                    CAKE ORDERED
                Nutella Cake
------------------------------------------------------------
                                          TOTAL BILL
                                          5400.0RUPEES
==============================================================
                        ============= THANKYOU FOR VISITING OUR BAKERY ===========
                        ==================== DO VISIT AGAIN ======================
```

TEST RUNs 3

DO YOU WANT TO LOGIN AS ADMINISTRATOR[YES/NO]:YES
Enter email address:computerprogram812@gmail.com
Enter password:computer812
YOU HAVE FOLLOWING OPTIONS
1.YOU CAN SEE THE USERS INFORMATION
2.YOU CAN UDPATE THE PRODUCTS STOCK
Please enter the number:1
FIRST NAME LAST NAME USER NAME PASSWORD EMAIL ADDRESS
tehreem fatima fatimas fatimakhan fatima.com
hunzala mushtaq hunzala123 hunzalas mushtaq@.com
AAYAAT ALI AYAATALI ALI555 AAYAAT@.COM
tehreem fatimah fatima021 tehfat13 tehreemf079@gmail.com
PS C:\Users\dell7240\Desktop\TEHREEEM\CEP>