DEPARTMENT OF COMPUTER & INFORMATION SYSTEMS ENGINEERING
BACHELORS IN COMPUTER SYSTEMS ENGINEERING
Course Code: CS-115
Course Title: Computer Programming
Complex Engineering Problem
FE Batch 2023, Fall Semester 2023
Grading Rubric
TERM PROJECT

Group Members:

Student No.	Name	Roll No.
S1	SHAMEEN GHYAS	CS-23002
S2	SYEDA ANEEQA FATIMA	CS-23023
S3	ZUNAIRA ZAINAB ABBASI	CS-23026

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) [8 marks]			
1 — 2 — 3 — 4			
1: The application does not meet the desired specifications and is producing incorrect outputs. 2: The application partially meets the desired specifications and is producing incorrect or partially correct outputs. 3: The application meets the desired specifications but is producing incorrect or partially correct outputs. 4: The application meets all the desired specifications and is producing correct outputs.			
Criterion 2: How well is the code organization? [2 marks]			
1 — 2 — 3 — 4			
1: The code is poorly organized and very difficult to read. 2: The code is readable only to someone who knows what it is supposed to be doing. 3: Some part of the code is well organized, while some part is difficult to follow. 4: The code is well organized and very easy to follow.			
Criterion 3: How friendly is the application interface? (CPA-1, CPA-3) [2 marks]			
1 — 2 — 3 — 4			
1: The application interface is difficult to understand and use. 2: The application interface is easy to understand and but not that comfortable to use. 3: The application interface is very easy to understand and use. 4: 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) [4 marks]			
1 — 2 — 3 — 4			
1: The student did not work on the assigned task. 2: The student worked on the assigned task, and accomplished goals partially. 3: The student worked on the assigned task, and accomplished goals satisfactorily. 4: The student worked on the assigned task, and accomplished goals beyond expectations.			
Criterion 5: Does the report adhere to the given format and requirements? [4 marks]			
1 — 2 — 3 — 4			
1: The report does not contain the required information and is formatted poorly. 2: The report contains the required information only partially but is formatted well. 3: The report contains all the required information but is formatted poorly. 4: The report contains all the required information and completely adheres to the given format.			
Total Marks:			

_____
Teacher's Signature

Contents

REPORT

PROBLEM DISCRIPTION:

INCONVENIENCE TO USER:

At places like during account creation/login if the user accidentally gets to enter a wrong password at password confirming stage then the user would have to repeat the whole process of creating account/login again instead of just correcting the password thus becoming a little bit of frustrating for user providing him inconvenience at such points.

NEED FOR GUI FEATURES :

The current code is entirely console-based, meaning it runs in the command line or terminal. If your teacher is asking for GUI features, you'll need to transition to a graphical user interface (GUI) framework

□ DISTINGUISHING FEATURES OF OUR PROJECT

USER INTERFACE (CONSOLE-BASED):

The console-based user interface provides a straightforward way for users to interact with the application, making it accessible to a wide range of users without the need for a graphical user interface (GUI).

MODULARITY AND READABILITY:

The use of separate functions for different functionalities (e.g., account creation/login, shopping cart management, viewing shopping history) enhances code modularity. Each function has a specific responsibility, making the code easier to read, understand, and maintain.

CLEAR USER INTERACTION:

The script provides a clear and interactive user interface. Users are prompted for input at various stages, making the application user-friendly and easy to navigate

ADD AND REMOVE UNLIMITED PRODUCTS:

Our online shopping application distinguishes itself by allowing users to add an unlimited number of products to their shopping cart and remove items as they wish. This flexibility enables a personalized shopping experience, accommodating varying product selections and preferences for each user.

INSTANT PROVIDES SHOPPING BILLS:

What sets us apart is the convenience of receiving an instant shopping bill every time a user makes a purchase, ensuring a seamless and transparent transaction experience

ACCESSIBLE SHOPPING HISTORY: VIEW ANYTIME, ANYWHERE:

Users can easily access their shopping history at any moment, allowing them to review past purchases effortlessly. This feature adds convenience and transparency, empowering users with the ability to track their shopping journeys whenever they desire.

☐ MOST CHALLENGING PART FOR US WHILE WORKING ON THE PROJECT

Shopping history:

In our project, we encountered challenges at almost every step, but the toughest part was dealing with saving and showing the user's shopping history, including the total bill. This involved a lot of difficulty because we had to figure out how to store the information about what users bought and then show it to them later. Getting this right was tricky, and we had to work hard to make sure the total bill and purchase details were saved and displayed accurately.

Dealing with errors:

In our project the difficult part was to deal with errors line by line and also checking the identation errors.

Dealing with functions:

Another difficult part was to decide to decide the position of a function that what function should be called after another function what should be the order but we figured that out and learned new things.

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

FUNCTIONS:

We implemented various functions to modularize your code, promoting code readability and reusability. Some key functions include:

del: Used for removing items from a collection, such as deleting entries from the shopping cart or user data.

try/except: Implemented to handle exceptions and errors gracefully, providing a fallback mechanism and preventing program crashes.

any: Used to check if any element in an iterable satisfies a condition, as seen in checking for existing usernames in the account function.

FILE HANDLING:

We developed a profound understanding with file handling, its usage and have developed enough learning to comprehend any kind of error that occur during file handling and so are able to rectify it as far as what we have learned.

PROPER USAGE OF GLOBAL VARIABLES:

We learned how to use global variables effectively. While it's generally recommended to minimize the use of global variables, your script appropriately

☐ INDIVIDUAL CONTRIBUTIONS OF EACH GROUP MEMBER IN THE PROJECT

SHAMEEN GHYAS: SHOPPING HISTORY AND VIEWING CART

SHOPPING HISTORY (SHOPPING_HISTORY AND SAVE_HISTORY FUNCTIONS):

Shameen implemented the functionality for viewing the shopping history. The shopping_history function reads from a 'shopping_history.txt' file and displays the user's past purchases. This feature allows users to review their shopping history.

VIEWING CART (VIEW_SHOPPING_CART FUNCTION):

She is responsible for the code related to viewing the shopping cart. The view_shopping_cart function allows users to see the current items in their cart along with the total bill. It also prompts the user to confirm or cancel their purchase.

ZUNAIRA ABBASI: ADDING TO CART AND REMOVING FROM CART ADDING TO CART (ADD_TO_CART

FUNCTION):

Zunaira implemented the feature that allows users to add products to their shopping cart. The add_to_cart function prompts users to input products and quantities and adds them to the cart.

REMOVING FROM CART (REMOVE_FROM_CART FUNCTION):

She is responsible for the code related to removing items from the shopping cart. The remove_from_cart function prompts users to input products they want to remove and updates the shopping cart accordingly.

ANEEQA FATIMA: ACCOUNT CREATION, USERNAME, AND PASSWORD ACCOUNT CREATION AND

LOGIN (ACCOUNT FUNCTION):

Aneeqa took charge of the account-related functionalities. The account function handles both account creation and login. During account creation, She prompts users for their first name, last name, username, and password. She checks the validity of the password and ensures that the username is unique. During login, She verifies the entered username and password against the stored user data.

USERNAME AND PASSWORD HANDLING:

Her part includes the handling of usernames and passwords throughout the script. She ensures that usernames are unique and correctly handles password validation and confirmation during the account creation process

☐FUTURE EXPANSIONS, IF ANY

GUI INTERFACE:

In our future plans, we aim to transform this code into a Graphical User Interface (GUI) to enhance the user experience. This transition will involve incorporating visual elements, interactive features, and a more intuitive interface, making the online shopping application more user-friendly. We look forward to creating a visually appealing and efficient GUI for a engaging user interaction.

FUTURE ENHANCEMENT: RESOLVING DUPLICATE PRODUCT ENTRY ISSUE

In our future updates, we are committed to addressing the issue where entering the same product twice removes the previous entry. We aim to provide a seamless shopping experience by ensuring that users can add multiple instances of the same product without unintentionally removing previous selections

❑ REFERENCES:

CHAT GPT:

Chat gpt helped us to correct our errors and we learned how can we take help from gpt in a correct manner.

IN CLASS EXCERCISES:

It helped us a lot in making the conditions in the code and dealing with the functions.

❑ FLOW OF THE PROJECT:

1. **User Registration/Authentication:**
   - Users have the option to either create a new account or log in with existing account.
   - Upon successful registration/login, users gain access to personalized features.
2. **Product Management:**
   - Once logged in, users can browse through the product catalog.
   - They can add products to their shopping cart based on their preferences.
   - Users also have the ability to remove items from their cart as needed.
3. **Shopping Cart Interaction:**
   - The shopping cart serves as a temporary storage for selected items.
   - Users can review and modify the contents of their cart at any time.
   - Changes made to the cart (additions/removals) are dynamically updated.
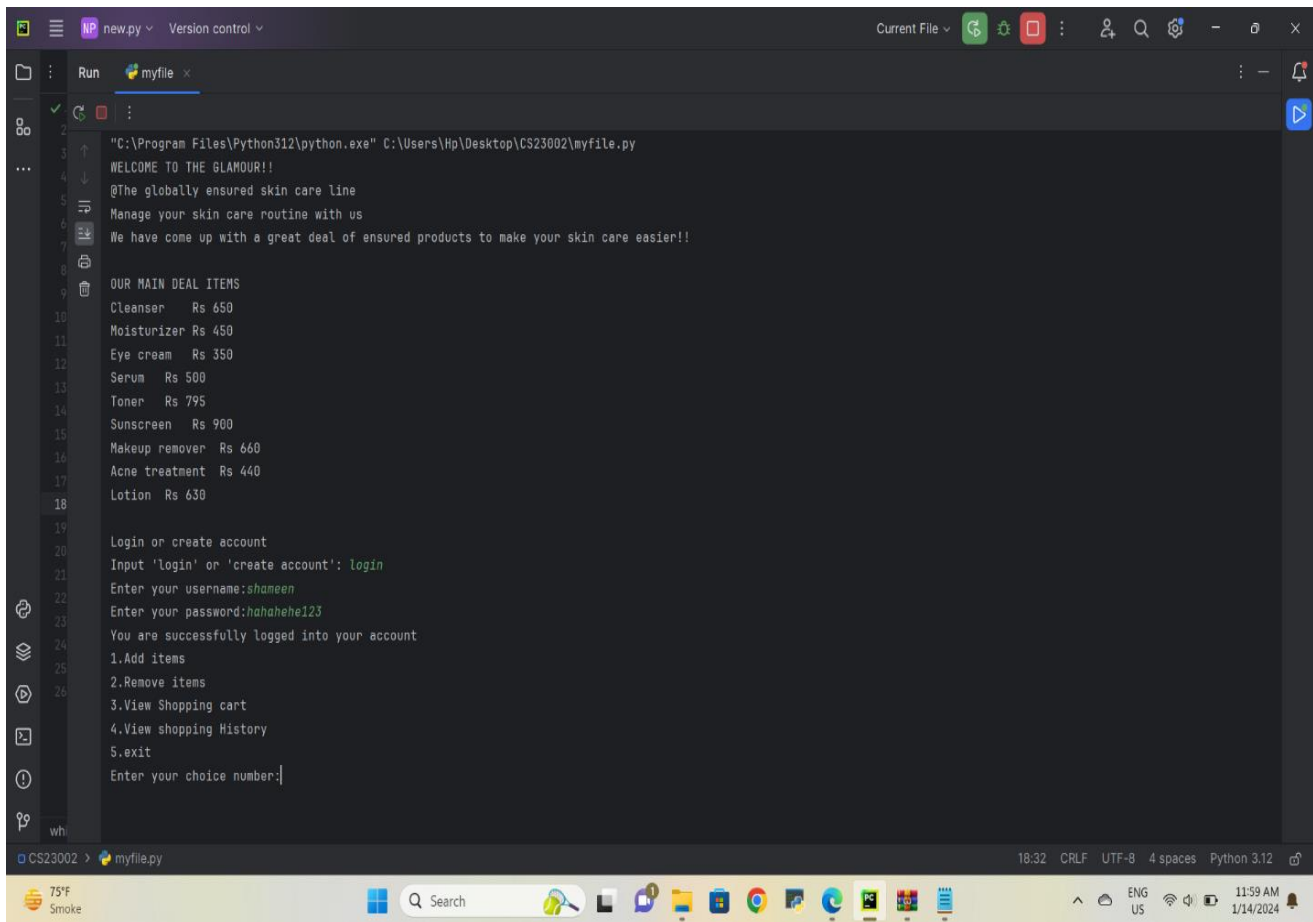4. **Checkout Process:**
   - Users proceed to the checkout step when they are ready to make a purchase.
   - The system calculates the total purchase bill based on the items in the cart.
   - Users are presented with a summary of their order, including the total cost.
   - They confirm their purchase, and the system then shares the total purshase bill of the user.
5. **Shopping History:**
   - Post-purchase, users have the option to check their shopping history.

- This feature allows users to review past orders.

TEST CASE RUN 1: ACCOUNT CREATION AND LOGIN

```
WELCOME TO THE GLAMOUR!!
@The globally ensured skin care line
Manage your skin care routine with us
We have come up with a great deal of ensured products to make your skin care easier!!

OUR MAIN DEAL ITEMS
Cleanser    Rs 650
Moisturizer Rs 450
Eye cream   Rs 350
Serum    Rs 500
Toner    Rs 795
Sunscreen   Rs 900
Makeup remover  Rs 660
Acne treatment  Rs 440
Lotion   Rs 630

Login or create account
Input 'login' or 'create account': create account
Enter your first name:Furqan
Enter your last name:Ghyas
Enter your username:furqan
Enter your password:furqanghyas123
Confirm your password:furqanghyas123
Account creation successful
1.Add items
2.Remove items
3.View Shopping cart
4.View shopping History
5.exit
Enter your choice number:
```

TEST CASE RUN 2: ADD/REMOVE PRODUCTS


```
Enter a product (or type 'done') to finish):Lotion
How many?2

Enter a product (or type 'done') to finish):Toner
How many?1

Enter a product (or type 'done') to finish):Moisturizer
How many?1

Enter a product (or type 'done') to finish):exfoliator

exfoliator NOT IN OUT PRODUCT LIST :(

Enter a product (or type 'done') to finish):Serum
How many?2

Enter a product (or type 'done') to finish):done
PRODUCTS HAVE BEEN ADDED TO THE CART.
1.Add items
2.Remove items
3.View Shopping cart
4.View shopping History
5.exit
Enter your choice number:2

Enter the product you want to remove('or type 'no' to finish)Serum

Enter the product you want to remove('or type 'no' to finish)no
PRODUCTS HAVE BEEN REMOVED FROM THE CART
```

TEST CASE RUN 3: CHECKOUT AND SHOPPING HISTORY

CHECKOUT

```
1.Add items
2.Remove items
3.View Shopping cart
4.View shopping History
5.exit
Enter your choice number:3

DO YOU WANT TO VIEW YOUR CART?(yes/no)yes
{'Lotion': 2, 'Serum': 2, 'Toner': 1, 'Sunscreen': 3}

YOUR TOTAL BILL IS RS: 5755

DO YOU WANT TO CONFIRM YOUR PURCHASE?(yes/no)yes

THANKYOU FOR YOUR PURCHASE!

WE LOOK FORWARD TO SEEING YOU AGAIN SOON!!
```
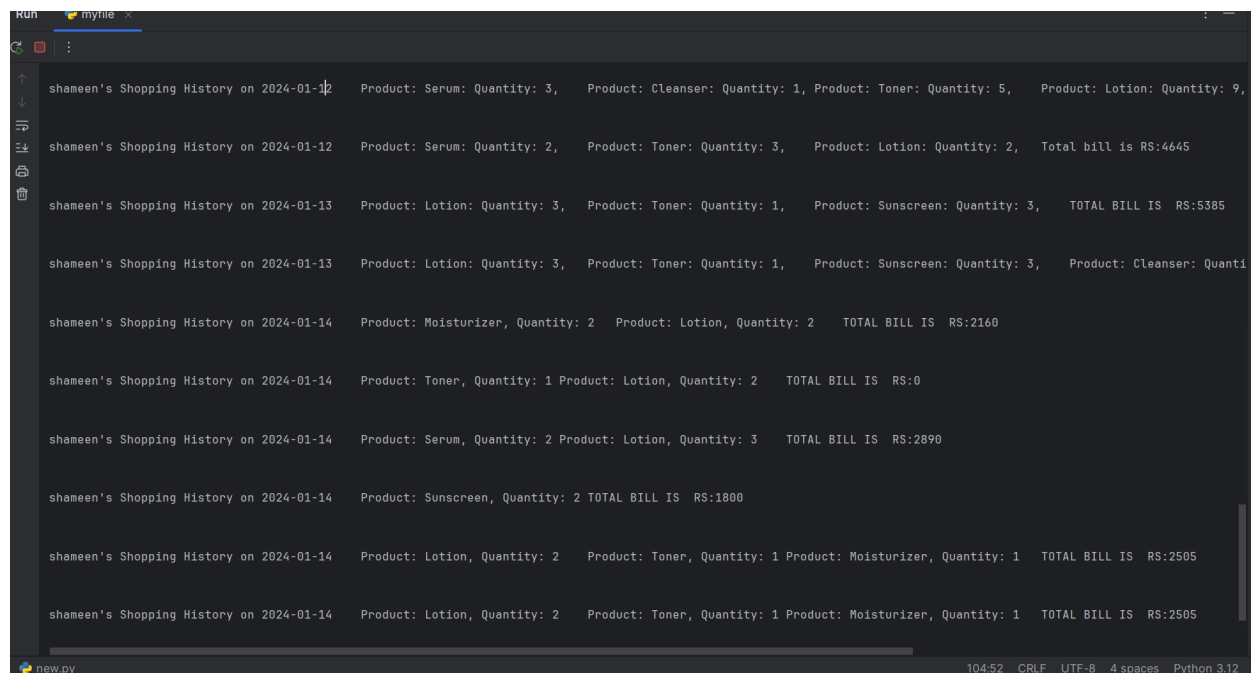
SHOPPING HISTORY:

```
Run      myfile  x

shameen's Shopping History on 2024-01-12    Product: Serum: Quantity: 3,    Product: Cleanser: Quantity: 1, Product: Toner: Quantity: 5,    Product: Lotion: Quantity: 9,

shameen's Shopping History on 2024-01-12    Product: Serum: Quantity: 2,    Product: Toner: Quantity: 3,    Product: Lotion: Quantity: 2,    Total bill is RS:4645

shameen's Shopping History on 2024-01-13    Product: Lotion: Quantity: 3,    Product: Toner: Quantity: 1,    Product: Sunscreen: Quantity: 3,    TOTAL BILL IS  RS:5385

shameen's Shopping History on 2024-01-13    Product: Lotion: Quantity: 3,    Product: Toner: Quantity: 1,    Product: Sunscreen: Quantity: 3,    Product: Cleanser: Quanti

shameen's Shopping History on 2024-01-14    Product: Moisturizer, Quantity: 2    Product: Lotion, Quantity: 2    TOTAL BILL IS  RS:2160

shameen's Shopping History on 2024-01-14    Product: Toner, Quantity: 1 Product: Lotion, Quantity: 2    TOTAL BILL IS  RS:0

shameen's Shopping History on 2024-01-14    Product: Serum, Quantity: 2 Product: Lotion, Quantity: 3    TOTAL BILL IS  RS:2890

shameen's Shopping History on 2024-01-14    Product: Sunscreen, Quantity: 2 TOTAL BILL IS  RS:1800

shameen's Shopping History on 2024-01-14    Product: Lotion, Quantity: 2    Product: Toner, Quantity: 1 Product: Moisturizer, Quantity: 1    TOTAL BILL IS  RS:2505

shameen's Shopping History on 2024-01-14    Product: Lotion, Quantity: 2    Product: Toner, Quantity: 1 Product: Moisturizer, Quantity: 1    TOTAL BILL IS  RS:2505

new.py                                                                          104:52  CRLF  UTF-8  4 spaces  Python 3.12
```