

TERM PROJECT

OBJECT ORIENTED APPLICATION IN PYTHON

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ROLL NO: CS-19072

SECTION: A

**DEPARTMENT: COMPUTER AND INFORMATION SYSTEMS
ENGINEERING**

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**CS-116 (THEORY) OBJECT ORIENTED
PROGRAMMING**

**COMPUTER AND INFORMATION SYSTEMS
ENGINEERING DEPARTMENT**

**NED UNIVERSITY OF ENGINEERING AND
TECHNOLOGY**

BATCH 2019-2020

PROBLEM DESCRIPTION:

Online shopping cart is a virtual shopping trolley, where shoppers can put all of their want-to-buy products in, review to make adjustments in quantity, product attributes, etc., and remove it before or during the checkout if they change their mind.

1. I was required to actually make object oriented programming (OOP) based application applying most of the OOP features.
2. I made use of the four features in this application to give it a look and they are inheritance, association, method overriding and exception handling.
3. I opted the use of list as well as dictionary to store and append the items, their information etc and write them in the file.
4. The user of this application can add, remove items, checkout, view shopping history and current cart etc.
5. This application can work well for all the above mentioned tasks.

DISTINGUISHING FEATURES OF PROJECT:

1. The distinguishing feature of my project may include that I used dictionary for storing stock etc which is quite different idea rather than opting for list. But, I made separate dictionary for stock to ease the accessing process by just accessing stock and not interrupting other lists of products information.
2. Second distinguishing feature can be that I provided separate password for admin account to adjust stock to give my program a more applicable look.
3. Third is that I made two separate files for accounts, one for only the account holders with personal information only while the

second one holds account with the shopping history and all products information.

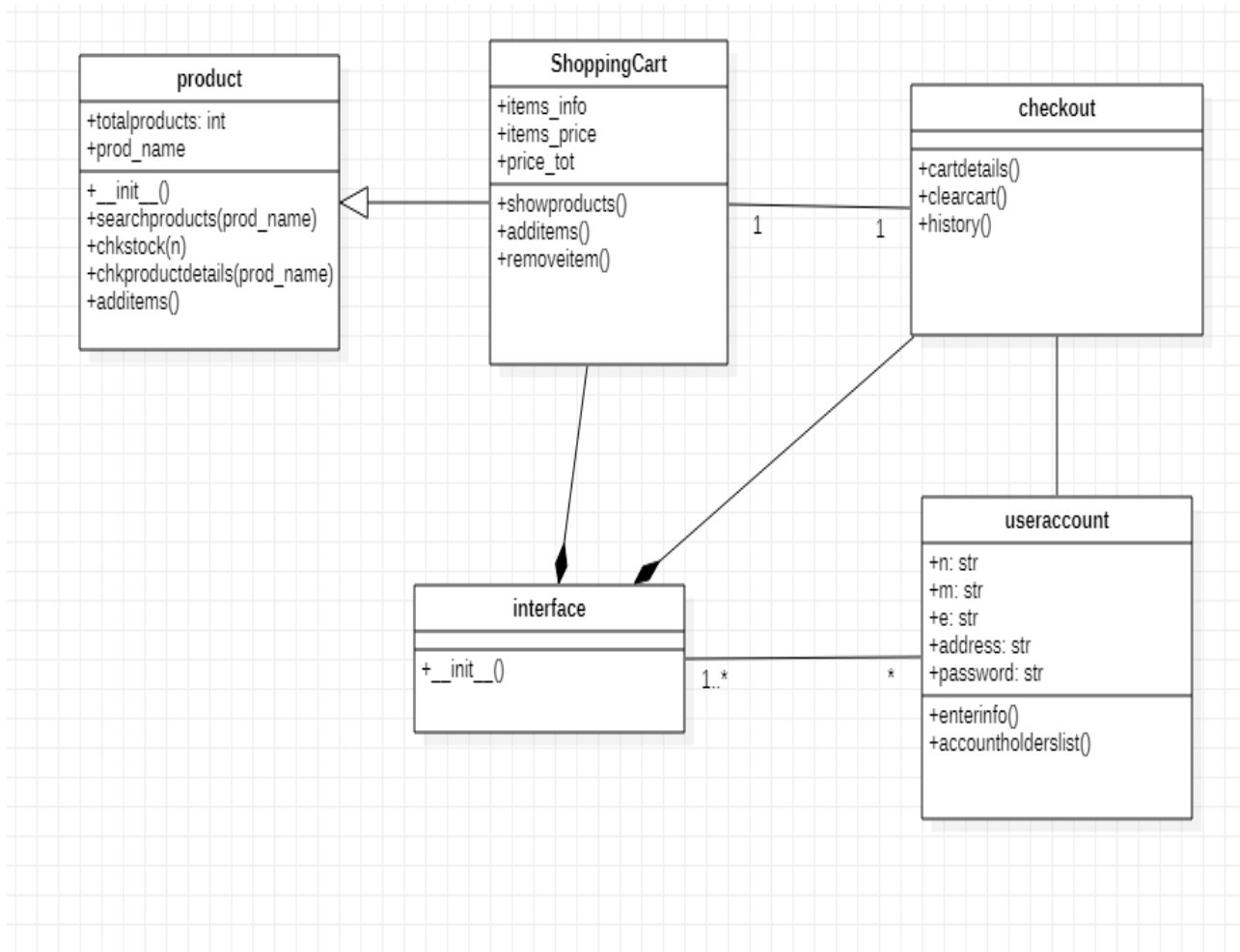
FLOW OF PROJECT INCLUDING CLASS DIAGRAM:

- The program when run will first show the main display through which user can interact and select the appropriate number to perform that operation. Different operations have been given different numbers.
- Then the user can add or remove items, admin can stock items or add more products etc
- If the user chooses add items the operation being called will go to product class's method and will open file and extract the products with their prices to show available products to the customer so that user can choose from them and know the price.
- Then the program will ask user to input name of the product you want and if he enters wrong name it will print a certain message for that product being unavailable and will bring him back to the main display and if he enters right name of the product then the program will ask for the required quantity of that product and adds to the cart.
- Then that product will be added to his cart with the price calculated according to the quantity, with subtotal and will minus that quantity from the stock at the backend.
- It will again show the user what he wants to add and if he doesn't want to add more then he can simply type q or a name of product not available (refer to the list provided above when you start adding products).

- Then the user can remove items. After choosing this option the program will first search for the cart if the cart is empty then it will show certain message that you can't remove anything because cart is empty otherwise program will ask for the name of the product then program will search if that product is present in the cart, If product not present then a customized message will be shown or If product is present then will ask you the quantity to remove. After that it will remove the item form the cart and will minus the subtotal and will increase the stock in the backend.
- After removing an item user will be brought back to the main display instead of asking again and again if the user wants to remove anything more or not. I have applied this logic in removing products case so if I show him again and again to remove something then if he doesn't want to remove anything then he might remove too so I kept this logic otherwise they can go again in this operation to remove anything.
- After adding or removing items the user can view current cart to check the price per products, quantity etc. the current cart which was updating continuously during removing and adding of items.
- Then user can checkout to proceed, when the checkout operation starts the program will ask user to confirm that if they really want to check out if they enter yes then the user will be asked to create account (calling of user account class) by entering personal information and after that all products information with subtotal will be displayed or if they entered something other than yes then they will be brought back to main display (incase if they add or remove items again too).

- After that the cart products will be added to shopping history with complete products and user information in a separate file for the individual records of the user then the cart will be empty.
- User can view shopping history by choosing particular number being on the main display. After entering number to check the history of the user he can write his name to search his history, then all the information of his shopping will be shown.
- User can also view account holders list to view all the people who have done shopping actually (opening user accounts class and reading all accounts). This class holds accounts containing personal information only.
- Last but not the least, administrator can login but will be required a password which administrator know and then he can add up products too (calling of the method in product class to add products). Also there is a separate number for operation in which admin can search details of the products stock etc by typing the name which he wants to search.
- Then the user can choose particular number to exit the application (showing a customized message at the end) but cannot exit if the cart is not empty, for exiting the application he must remove the items or check out.

Class Diagram:



MOST CHALLENGING PART WHILE WORKING ON THIS PROJECT:

1. The most challenging part while working on this project was to read dictionary or list from the file and make them to access through indexes or to print them etc.
2. Also, the challenging part of this program is to interlink the user account information with the cart.
3. Also, the challenging part was to think over the method that after checkout the cart would become empty and the items and their information be shifted in shopping history.

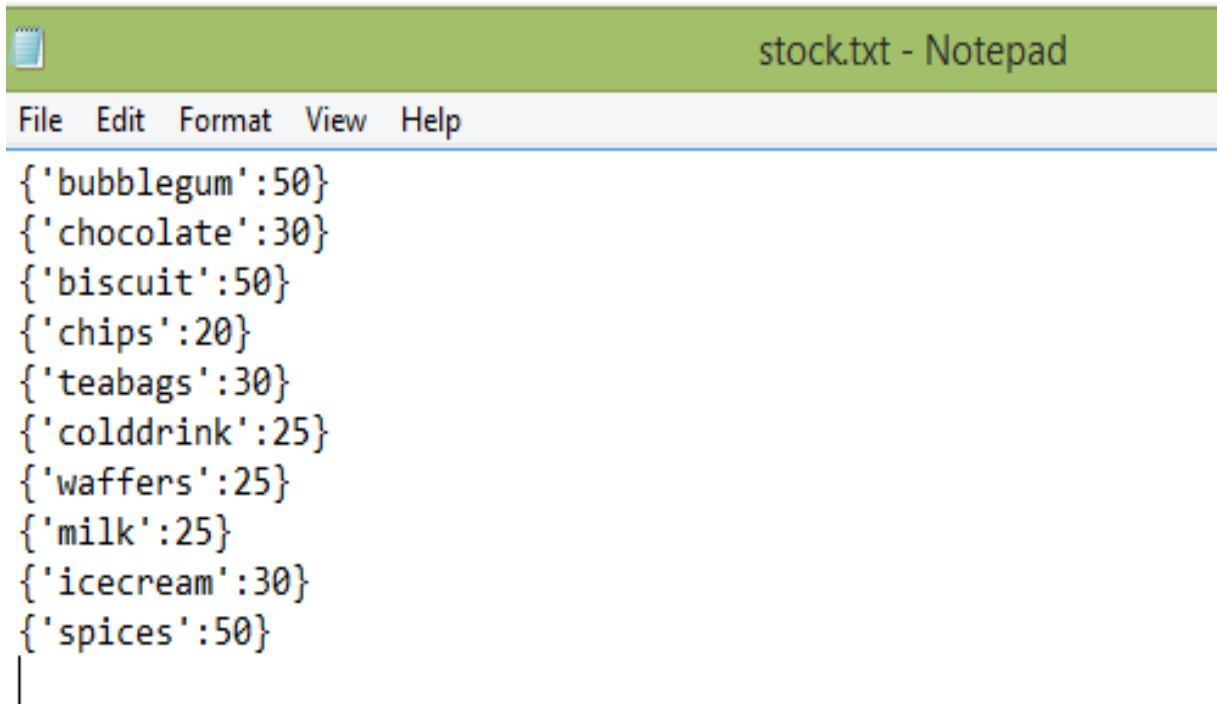
ANY NEW THING LEARNT IN PYTHON DURING THIS PROJECT:

Honestly not learnt anything to be called new but yes played with most of the concepts studied in this course, made own logics and this resulted in best explanation of the studied topics by experimenting with them and came up with this application as better as I could do.

FUTURE EXPANSIONS, IF ANY:

If there would be expansions in the same program there could be option to vary stock too, make it professional by advancing features used in this program, make it GUI based application.

TOTAL STOCK BEFORE TEST RUNS:



```
{ 'bubblegum':50}  
{ 'chocolate':30}  
{ 'biscuit':50}  
{ 'chips':20}  
{ 'teabags':30}  
{ 'colddrink':25}  
{ 'waffers':25}  
{ 'milk':25}  
{ 'icecream':30}  
{ 'spices':50}  
|
```


TEST RUN 1:

```
Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: F:\ned\semester 2\oop\final project\CS-19072.py =====
WELCOME TO ONLINE SHOPPING STORE
*****
ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=2

your current cart{}

Your cart is empty
Taking you to the main display

ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=w
enter digits only!
ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=1
```



```
File Edit Shell Debug Options Window Help

AVAILABLE PRODUCTCS
Here are the products with their prices!
choose from the following items

product 1 ='chips'and price is 20.0
product 2 ='biscuit'and price is 10.2
product 3 ='colddrink'and price is 25.0
product 4 ='waffers'and price is 40.0
product 5 ='milk'and price is 100.0
product 6 ='chocolate'and price is 25.0
product 7 ='bubblegum'and price is 5.0
product 8 ='teabags'and price is 250.0
product 9 ='icecream'and price is 45.0
product 10 ='spices'and price is 70.0

you will be taken to main display if we dont have the required product available
OR if you want to exit by yourself enter q or Q

enter product name to add item in the cart
bubblegum

product= bubblegum
price of bubblegum is 5.0

enter required quantity=4
subtotal= 20.0

you will be taken to main display if we dont have the required product available
OR if you want to exit by yourself enter q or Q

enter product name to add item in the cart
waffers

product= waffers
price of waffers is 40.0

enter required quantity=3
subtotal= 140.0

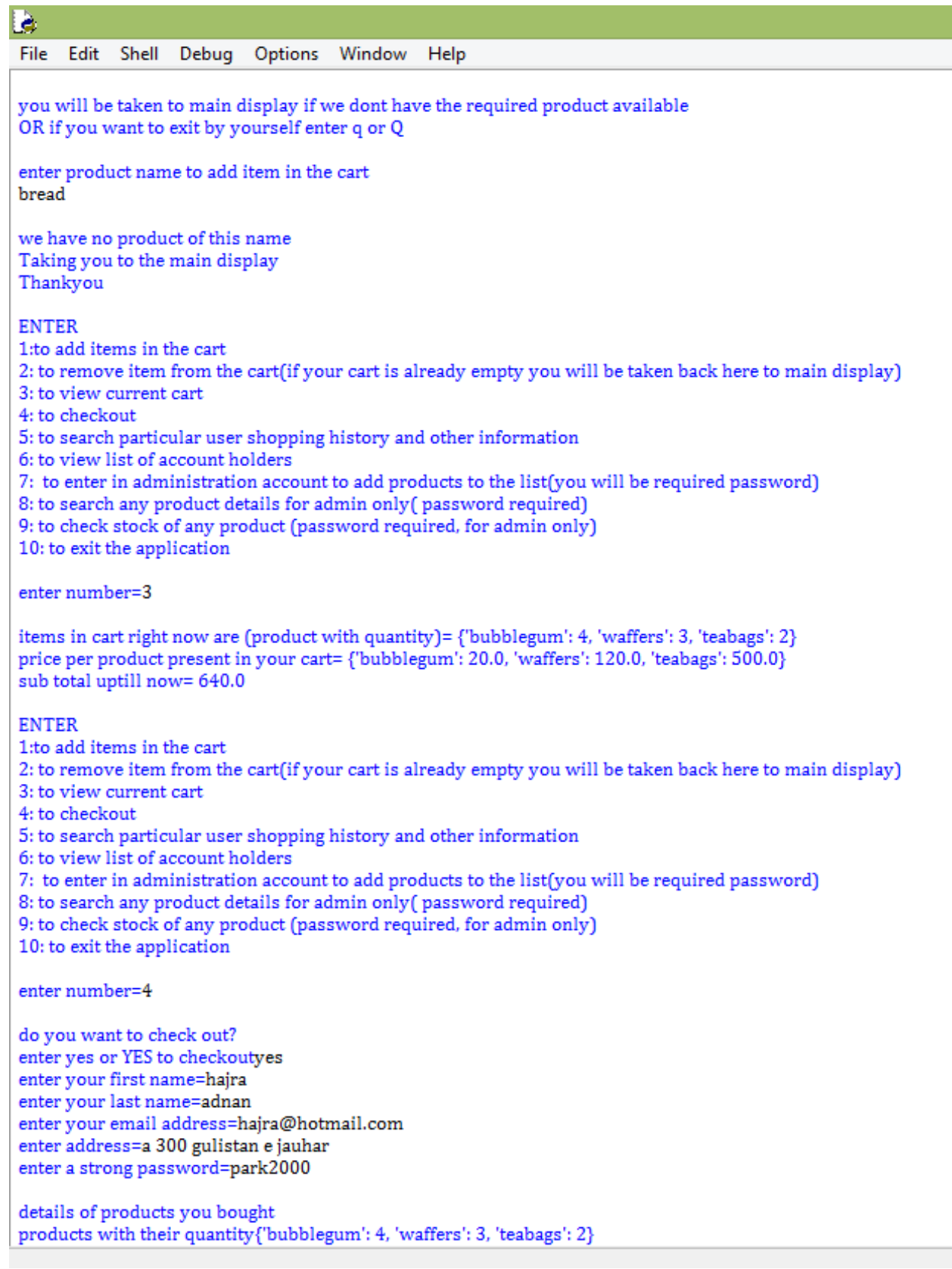
you will be taken to main display if we dont have the required product available
OR if you want to exit by yourself enter q or Q

enter product name to add item in the cart
teabags

product= teabags
price of teabags is 250.0

enter required quantity=2
subtotal= 640.0

you will be taken to main display if we dont have the required product available
```



```
File Edit Shell Debug Options Window Help

you will be taken to main display if we dont have the required product available
OR if you want to exit by yourself enter q or Q

enter product name to add item in the cart
bread

we have no product of this name
Taking you to the main display
Thankyou

ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=3

items in cart right now are (product with quantity)= {'bubblegum': 4, 'waffers': 3, 'teabags': 2}
price per product present in your cart= {'bubblegum': 20.0, 'waffers': 120.0, 'teabags': 500.0}
sub total uptill now= 640.0

ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=4

do you want to check out?
enter yes or YES to checkoutyes
enter your first name=hajra
enter your last name=adnan
enter your email address=hajra@hotmail.com
enter address=a 300 gulistan e jauhar
enter a strong password=park2000

details of products you bought
products with their quantity{'bubblegum': 4, 'waffers': 3, 'teabags': 2}
```

```
File Edit Shell Debug Options Window Help
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=4

do you want to check out?
enter yes or YES to checkoutyes
enter your first name=hajra
enter your last name=adnan
enter your email address=hajra@hotmail.com
enter address=a 300 gulistan e jauhar
enter a strong password=park2000

details of products you bought
products with their quantity{'bubblegum': 4, 'waffers': 3, 'teabags': 2}
each product at the rate of{'bubblegum': 20.0, 'waffers': 120.0, 'teabags': 500.0}
your total amount=640.0

ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=3

items in cart right now are (product with quantity)= {}
price per product present in your cart= {}
sub total uptill now= 0

ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

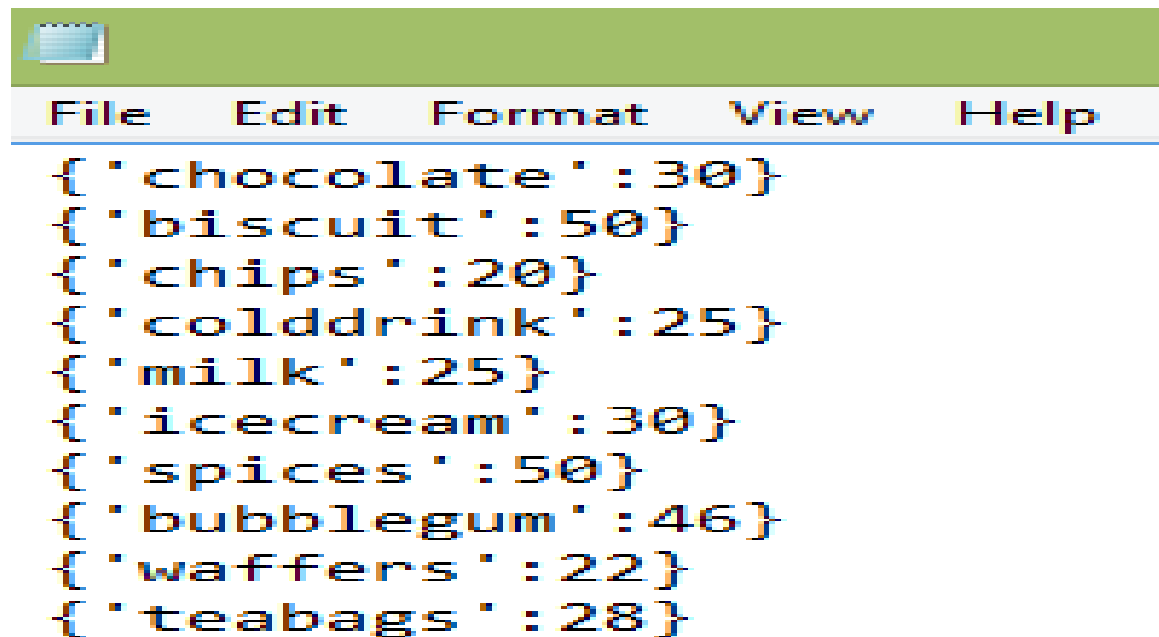
enter number=10

THANKYOU for choosing us!
leave your feedback here=great
>>>|
```

Conclusion of test run 1:

First we tested that can we remove items from empty cart so no, it was taking us back to main display then we tried non integer in place of choosing operation number so exception worked, then added some items and while writing product name tried to write the name that was not present in the list so it worked well then we checked current cart then checked out simply and checked if the cart has been empty or not so overall it was good going and checked out.

TOTAL STOCK AFTER TEST RUN 1 (reducing stock):



The screenshot shows a Notepad application window with a green title bar. The menu bar includes File, Edit, Format, View, and Help. The text area contains a JSON object representing the stock levels of various items:

```
{ 'chocolate': 30 }  
{ 'biscuit': 50 }  
{ 'chips': 20 }  
{ 'coldddrink': 25 }  
{ 'milk': 25 }  
{ 'icecream': 30 }  
{ 'spices': 50 }  
{ 'bubblegum': 46 }  
{ 'waffers': 22 }  
{ 'teabags': 28 }
```

TEST RUN 2:



```
Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: F:\ned\semester 2\oop\final project\CS-19072.py =====
WELCOME TO ONLINE SHOPPING STORE
*****
ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=8

enter password to login to administration account=hajra
SORRY! unauthorized login
ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=8

enter password to login to administration account=HAJRA072
enter name of product to search for=bubblegum

product= bubblegum
price= 5.0
product_ID= 9043
stock is= 46

ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
```



```
File Edit Shell Debug Options Window Help
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=1

AVAILABLE PRODUCTCS
Here are the products with their prices!
choose from the following items

product 1 ='chips'and price is 20.0
product 2 ='biscuit'and price is 10.2
product 3 ='colddrink'and price is 25.0
product 4 ='waffers'and price is 40.0
product 5 ='milk'and price is 100.0
product 6 ='chocolate'and price is 25.0
product 7 ='bubblegum'and price is 5.0
product 8 ='teabags'and price is 250.0
product 9 ='icecream'and price is 45.0
product 10 ='spices'and price is 70.0

you will be taken to main display if we dont have the required product available
OR if you want to exit by yourself enter q or Q

enter product name to add item in the cart
waffers

product= waffers
price of waffers is 40.0

enter required quantity=10
subtotal= 400.0

you will be taken to main display if we dont have the required product available
OR if you want to exit by yourself enter q or Q

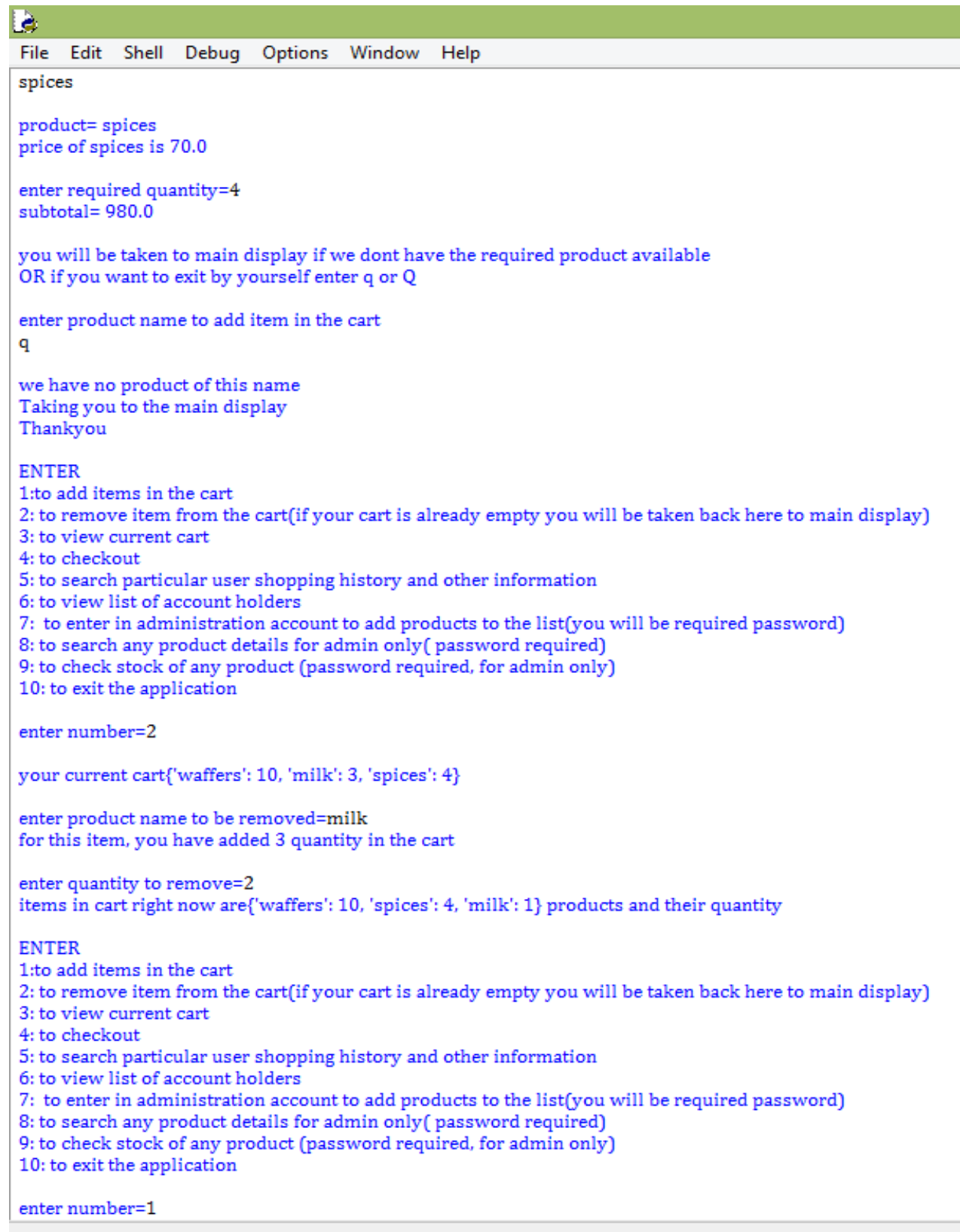
enter product name to add item in the cart
milk

product= milk
price of milk is 100.0

enter required quantity=3
subtotal= 700.0

you will be taken to main display if we dont have the required product available
OR if you want to exit by yourself enter q or Q

enter product name to add item in the cart
spices
```



```
File Edit Shell Debug Options Window Help
spices

product= spices
price of spices is 70.0

enter required quantity=4
subtotal= 980.0

you will be taken to main display if we dont have the required product available
OR if you want to exit by yourself enter q or Q

enter product name to add item in the cart
q

we have no product of this name
Taking you to the main display
Thankyou

ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=2

your current cart{'waffers': 10, 'milk': 3, 'spices': 4}

enter product name to be removed=milk
for this item, you have added 3 quantity in the cart

enter quantity to remove=2
items in cart right now are{'waffers': 10, 'spices': 4, 'milk': 1} products and their quantity

ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=1
```




```
File Edit Shell Debug Options Window Help
enter number=1

AVAILABLE PRODUCTCS
Here are the products with their prices!
choose from the following items

product 1 ='chips'and price is 20.0
product 2 ='biscuit'and price is 10.2
product 3 ='coldrink'and price is 25.0
product 4 ='waffers'and price is 40.0
product 5 ='milk'and price is 100.0
product 6 ='chocolate'and price is 25.0
product 7 ='bubblegum'and price is 5.0
product 8 ='teabags'and price is 250.0
product 9 ='icecream'and price is 45.0
product 10 ='spices'and price is 70.0

you will be taken to main display if we dont have the required product available
OR if you want to exit by yourself enter q or Q

enter product name to add item in the cart
coldrink

product= coldrink
price of coldrink is 25.0

enter required quantity=6
subtotal= 930.0

you will be taken to main display if we dont have the required product available
OR if you want to exit by yourself enter q or Q

enter product name to add item in the cart
biscuit

product= biscuit
price of biscuit is 10.2

enter required quantity=2
subtotal= 950.4

you will be taken to main display if we dont have the required product available
OR if you want to exit by yourself enter q or Q

enter product name to add item in the cart
q

we have no product of this name
Taking you to the main display
Thankyou

ENTER
1:to add items in the cart
```



```
File Edit Shell Debug Options Window Help
ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=2

your current cart{'waffers': 10, 'spices': 4, 'milk': 1, 'colddrink': 6, 'biscuit': 2}

enter product name to be removed=waffers
for this item, you have added 10 quantity in the cart

enter quantity to remove=5
items in cart right now are{'spices': 4, 'milk': 1, 'colddrink': 6, 'biscuit': 2, 'waffers': 5} products and their quantity

ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=3

items in cart right now are (product with quantity)= {'spices': 4, 'milk': 1, 'colddrink': 6, 'biscuit': 2, 'waffers': 5}
price per product present in your cart= {'spices': 280.0, 'milk': 100.0, 'colddrink': 150.0, 'biscuit': 20.4, 'waffers': 200.0}
sub total uptill now= 750.4

ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=4
```

```

File Edit Shell Debug Options Window Help
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=3

items in cart right now are (product with quantity)= {'spices': 4, 'milk': 1, 'colddrink': 6, 'biscuit': 2, 'waffers': 5}
price per product present in your cart= {'spices': 280.0, 'milk': 100.0, 'colddrink': 150.0, 'biscuit': 20.4, 'waffers': 200.0}
sub total uptill now= 750.4

ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=4

do you want to check out?
enter yes or YES to checkoutyes
enter your first name=sumeira
enter your last name=siddiqui
enter your email address=sumeira@gmail.com
enter address=block 5 gulshan e iqbal
enter a strong password=karachi2020

details of products you bought
products with their quantity{'spices': 4, 'milk': 1, 'colddrink': 6, 'biscuit': 2, 'waffers': 5}
each product at the rate of{'spices': 280.0, 'milk': 100.0, 'colddrink': 150.0, 'biscuit': 20.4, 'waffers': 200.0}
your total amount=750.4

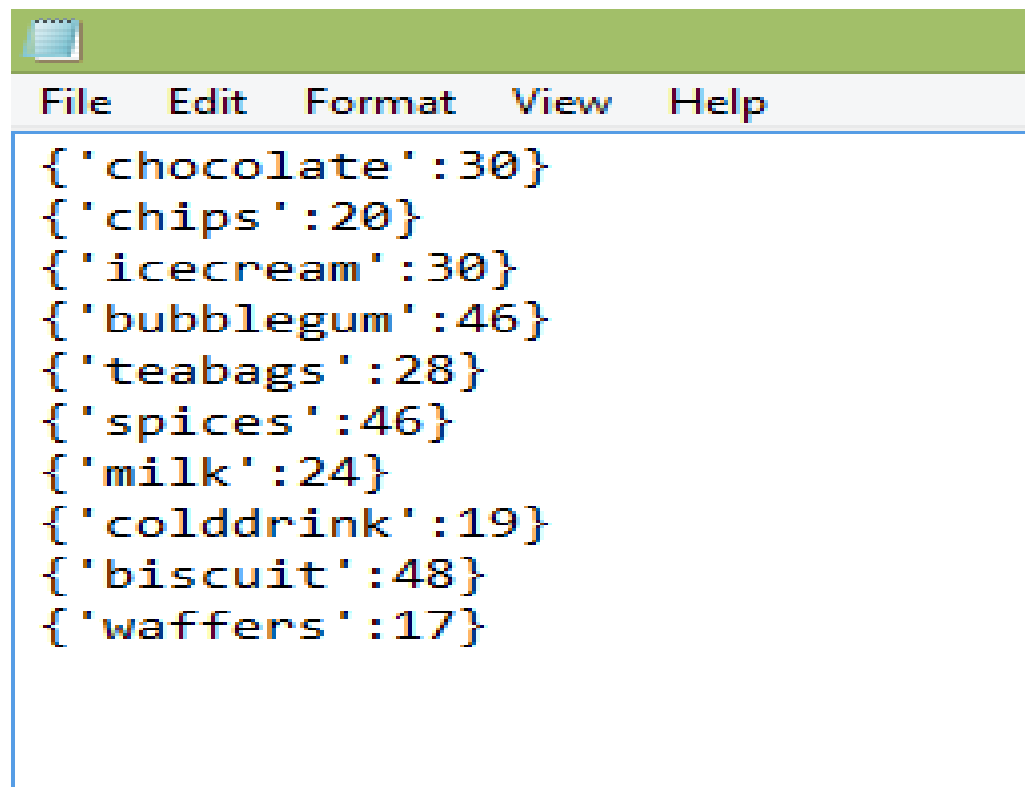
ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application
|
enter number=10

THANKYOU for choosing us!
leave your feedback here=good
>>>
```

Conclusion of test run 2:

First we attempted to log in the administration account as a user but due to wrong password the user was not allowed to make changes then logged in as an admin and tried to know product details of a product and got all the details with stock etc. Then added some products in the cart and entered q to come out of the add items operation then removed some items and it actually reduced from the current cart then added items again and then removed again to see if it's proper functioning or not, viewed current cart to see what we added and removed is exactly in the cart then checked out by entering information, then exited the application.

TOTAL STOCK AFTER TEST RUN 2:



```
{ 'chocolate': 30 }
{ 'chips': 20 }
{ 'icecream': 30 }
{ 'bubblegum': 46 }
{ 'teabags': 28 }
{ 'spices': 46 }
{ 'milk': 24 }
{ 'colddrink': 19 }
{ 'biscuit': 48 }
{ 'waffers': 17 }
```

TEST RUN 3:

```
Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: F:\ned\semester 2\oop\final project\CS-19072.py =====
WELCOME TO ONLINE SHOPPING STORE
*****
ENTER
1: to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=6

S:NO  FIRST NAME  LAST NAME  EMAIL  ADDRESS
1['hajra'      'adnan'      'hajra@hotmail.com'  'a 300 gulistan e jauhar']
2['sumeira'    'siddiqui'   'sumeira@gmail.com'  'block 5 gulshan e iqbal']

ENTER
1: to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=9

enter password to login to administration account=HAJRA072
enter product to check stock for=chips

stock of the given product is= 20

ENTER
1: to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
```



```
File Edit Shell Debug Options Window Help
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=7

enter passowrd to login to administration account=HAJRA072
enter number of products to add in the list=3

enter name of product=bread
enter unit price=50
enter stock of this product=20
enter product ID=6799

enter name of product=butter
enter unit price=75
enter stock of this product=10
enter product ID=1090

enter name of product=eggs
enter unit price=15
enter stock of this product=60
enter product ID=8345

ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=5

enter name to search history=hajra
USER DETAILS!
name:hajraadnan
email:hajra@hotmail.com
address:a 300 gulistan e jauhar

SHOPPING HISTORY
```



```
File Edit Shell Debug Options Window Help

SHOPPING HISTORY
products and their quantity= {'bubblegum': 4, 'waffers': 3, 'teabags': 2}
prices per product you bought= {'bubblegum': 20.0, 'waffers': 120.0, 'teabags': 500.0}
total bill= 640.0
ENTER
1: to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=1

AVAILABLE PRODUCTCS
Here are the products with their prices!
choose from the following items

product 1 ='chips'and price is 20.0
product 2 ='biscuit'and price is 10.2
product 3 ='colddrink'and price is 25.0
product 4 ='waffers'and price is 40.0
product 5 ='milk'and price is 100.0
product 6 ='chocolate'and price is 25.0
product 7 ='bubblegum'and price is 5.0
product 8 ='teabags'and price is 250.0
product 9 ='icecream'and price is 45.0
product 10 ='spices'and price is 70.0
product 11 ='bread'and price is 50.0
product 12 ='butter'and price is 75.0
product 13 ='eggs'and price is 15.0

you will be taken to main display if we dont have the required product available
OR if you want to exit by yourself enter q or Q

enter product name to add item in the cart
bread

product= bread
price of bread is 50.0

enter required quantity=2
subtotal= 100.0

you will be taken to main display if we dont have the required product available
OR if you want to exit by yourself enter q or Q

enter product name to add item in the cart
```



```
File Edit Shell Debug Options Window Help
enter product name to add item in the cart
butter

product= butter
price of butter is 75.0

enter required quantity=1
subtotal= 175.0

you will be taken to main display if we dont have the required product available
OR if you want to exit by yourself enter q or Q

enter product name to add item in the cart
eggs

product= eggs
price of eggs is 15.0

enter required quantity=6
subtotal= 265.0

you will be taken to main display if we dont have the required product available
OR if you want to exit by yourself enter q or Q

enter product name to add item in the cart
bubblegum

product= bubblegum
price of bubblegum is 5.0

enter required quantity=5
subtotal= 290.0

you will be taken to main display if we dont have the required product available
OR if you want to exit by yourself enter q or Q

enter product name to add item in the cart
chips

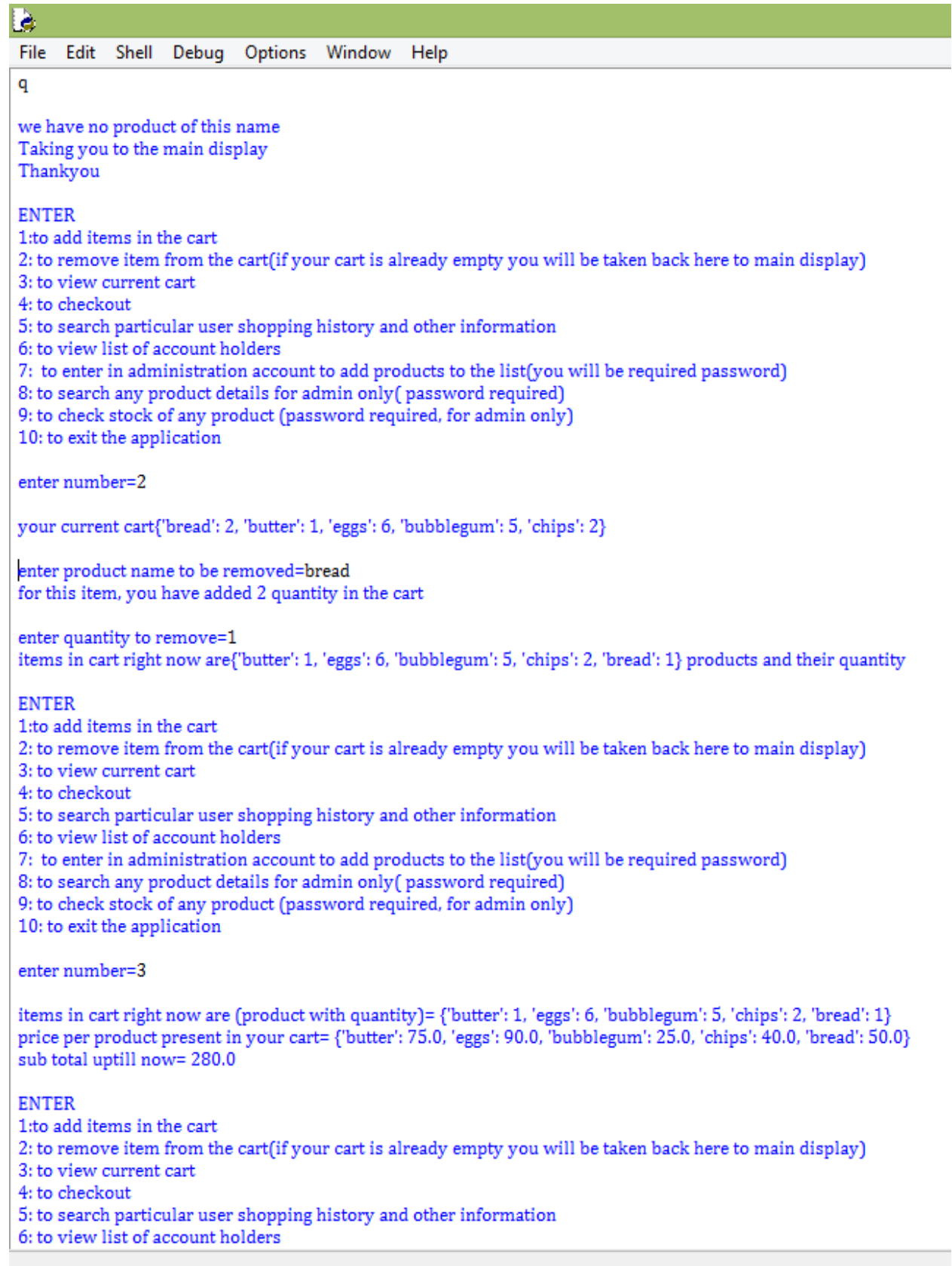
product= chips
price of chips is 20.0

enter required quantity=2
subtotal= 330.0

you will be taken to main display if we dont have the required product available
OR if you want to exit by yourself enter q or Q

enter product name to add item in the cart
q

we have no product of this name
Taking you to the main display
```

```
q
we have no product of this name
Taking you to the main display
Thankyou

ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=2

your current cart{'bread': 2, 'butter': 1, 'eggs': 6, 'bubblegum': 5, 'chips': 2}

|enter product name to be removed=bread
for this item, you have added 2 quantity in the cart


enter quantity to remove=1
items in cart right now are{'butter': 1, 'eggs': 6, 'bubblegum': 5, 'chips': 2, 'bread': 1} products and their quantity

ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=3

items in cart right now are (product with quantity)= {'butter': 1, 'eggs': 6, 'bubblegum': 5, 'chips': 2, 'bread': 1}
price per product present in your cart= {'butter': 75.0, 'eggs': 90.0, 'bubblegum': 25.0, 'chips': 40.0, 'bread': 50.0}
sub total uptill now= 280.0

ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
```



```
File Edit Shell Debug Options Window Help
sub total uptill now= 280.0

ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=4

do you want to check out?
enter yes or YES to checkoutyes
enter your first name=fatima
enter your last name=kashif
enter your email address=fkashif@gmail.com
enter address=flat 65 block 2
enter a strong password=pakistan1947

details of products you bought
products with their quantity{'butter': 1, 'eggs': 6, 'bubblegum': 5, 'chips': 2, 'bread': 1}
each product at the rate of{'butter': 75.0, 'eggs': 90.0, 'bubblegum': 25.0, 'chips': 40.0, 'bread': 50.0}
your total amount=280.0

ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=4

do you want to check out?
enter yes or YES to checkoutyes
your cart is empty
can't checkout
ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
```



```
File Edit Shell Debug Options Window Help
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=4

do you want to check out?
enter yes or YES to checkoutyes
enter your first name=fatima
enter your last name=kashif
enter your email address=fkashif@gmail.com
enter address=flat 65 block 2
enter a strong password=pakistan1947

details of products you bought
products with their quantity{'butter': 1, 'eggs': 6, 'bubblegum': 5, 'chips': 2, 'bread': 1}
each product at the rate of{'butter': 75.0, 'eggs': 90.0, 'bubblegum': 25.0, 'chips': 40.0, 'bread': 50.0}
your total amount=280.0

ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=4

do you want to check out?
enter yes or YES to checkoutyes
your cart is empty
can't checkout
ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

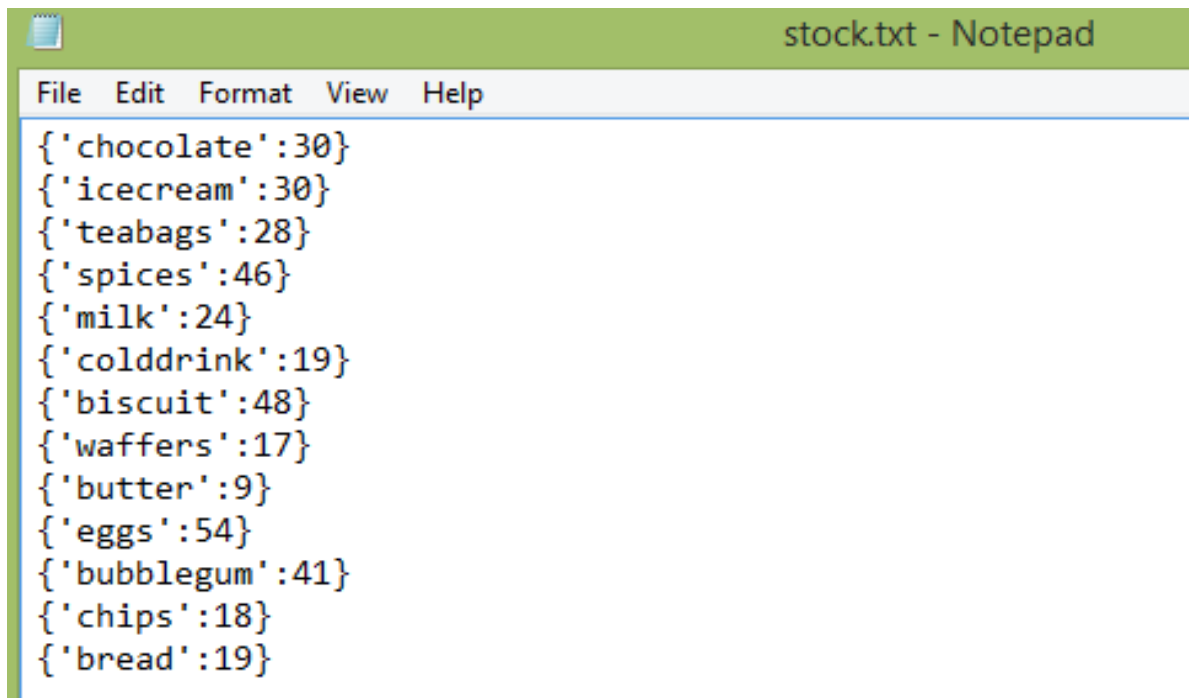
enter number=10

THANKYOU for choosing us!
leave your feedback here=loved the store! will visit again
>>>
```

Conclusion of test run 3:

First we tried to check list of account holders (made separate txt file for it so that it contains account holder's personal information only), then logged in as admin and checked stock of particular product, then again logged in as admin to add some products in the application, then checked for particular user shopping history, then added and removed some items from the cart and viewed current cart to have estimate of what we have in the cart with total price, products with their quantity and price within specific products, then checked out by entering information required for creating account. In last, we tried to check out by having empty cart but I responded for not checking out for empty cart. In-short, worked well.

TOTAL STOCK AFTER TEST RUN 3:



```
{ 'chocolate':30}  
{ 'icecream':30}  
{ 'teabags':28}  
{ 'spices':46}  
{ 'milk':24}  
{ 'colddrink':19}  
{ 'biscuit':48}  
{ 'waffers':17}  
{ 'butter':9}  
{ 'eggs':54}  
{ 'bubblegum':41}  
{ 'chips':18}  
{ 'bread':19}
```

TEST RUN 4:



```
Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: F:\ned\semester 2\oop\final project\CS-19072.py =====
WELCOME TO ONLINE SHOPPING STORE
*****
ENTER
1: to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=1

AVAILABLE PRODUCTCS
Here are the products with their prices!
choose from the following items

product 1 ='chips'and price is 20.0
product 2 ='biscuit'and price is 10.2
product 3 ='colddrink'and price is 25.0
product 4 ='waffers'and price is 40.0
product 5 ='milk'and price is 100.0
product 6 ='chocolate'and price is 25.0
product 7 ='bubblemum'and price is 5.0
product 8 ='teabags'and price is 250.0
product 9 ='icecream'and price is 45.0
product 10 ='spices'and price is 70.0
product 11 ='bread'and price is 50.0
product 12 ='butter'and price is 75.0
product 13 ='eggs'and price is 15.0

you will be taken to main display if we dont have the required product available
OR if you want to exit by yourself enter q or Q

enter product name to add item in the cart
icecream

product= icecream
price of icecream is 45.0

enter required quantity=3
subtotal= 135.0

you will be taken to main display if we dont have the required product available
OR if you want to exit by yourself enter q or Q
```



```
enter product name to add item in the cart
waffers

product= waffers
price of waffers is 40.0

enter required quantity=2
subtotal= 215.0

you will be taken to main display if we dont have the required product available
OR if you want to exit by yourself enter q or Q

enter product name to add item in the cart
q

we have no product of this name
Taking you to the main display
Thankyou

ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=10

you can't checkout!
your cart should be empty

ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=4

do you want to check out?
enter yes or YES to checkoutYES
```



```
File Edit Shell Debug Options Window Help
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=10

you can't checkout!
your cart should be empty

ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

enter number=4

do you want to check out?
enter yes or YES to checkoutYES
enter your first name=wareesha
enter your last name=hassan
enter your email address=whassan@gmail.com
enter address=DHA phase 7
enter a strong password=cocacola160

details of products you bought
products with their quantity{'icecream': 3, 'waffers': 2}
each product at the rate of{'icecream': 135.0, 'waffers': 80.0}
your total amount=215.0

ENTER
1:to add items in the cart
2: to remove item from the cart(if your cart is already empty you will be taken back here to main display)
3: to view current cart
4: to checkout
5: to search particular user shopping history and other information
6: to view list of account holders
7: to enter in administration account to add products to the list(you will be required password)
8: to search any product details for admin only( password required)
9: to check stock of any product (password required, for admin only)
10: to exit the application

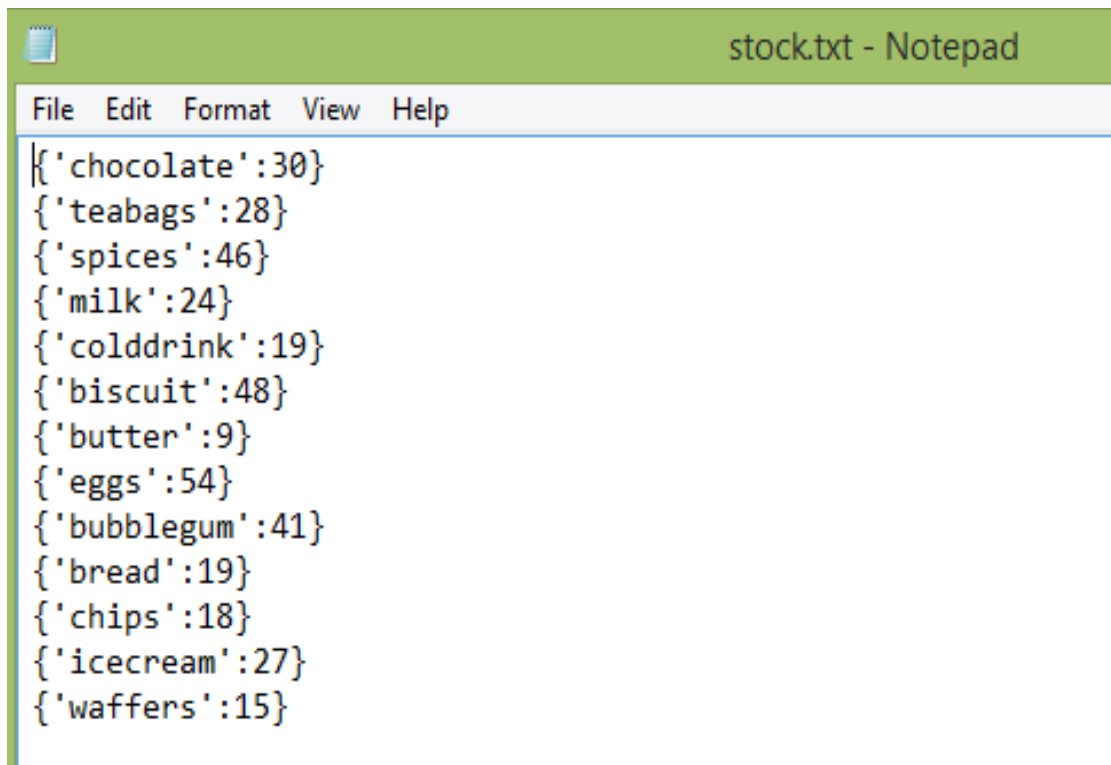
enter number=10

THANKYOU for choosing us!
leave your feedback here=awesome place for online shopping
>>>|
```

Conclusion for test run 4:

First we added some products and decided to exit application but it said that your cart should be empty for checkout, then we checked out and exited the application.

TOTAL STOCK AFTER TEST RUN 4:



```
{ 'chocolate':30}  
{ 'teabags':28}  
{ 'spices':46}  
{ 'milk':24}  
{ 'colddrink':19}  
{ 'biscuit':48}  
{ 'butter':9}  
{ 'eggs':54}  
{ 'bubblegum':41}  
{ 'bread':19}  
{ 'chips':18}  
{ 'icecream':27}  
{ 'waffers':15}
```

THANKYOU!