



# **Individual Assignment**

## **Python Programming**

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## Introduction and Assumptions

The rise of grocery stores companies on the internet has made it much simpler to stock up on supplies for the pantry. You will learn that there are a lot of advantages to doing your grocery shopping online, regardless of whether this is your first time utilising a grocery delivery service or if you are an experienced online shopper (Denisewitsch, 2021).

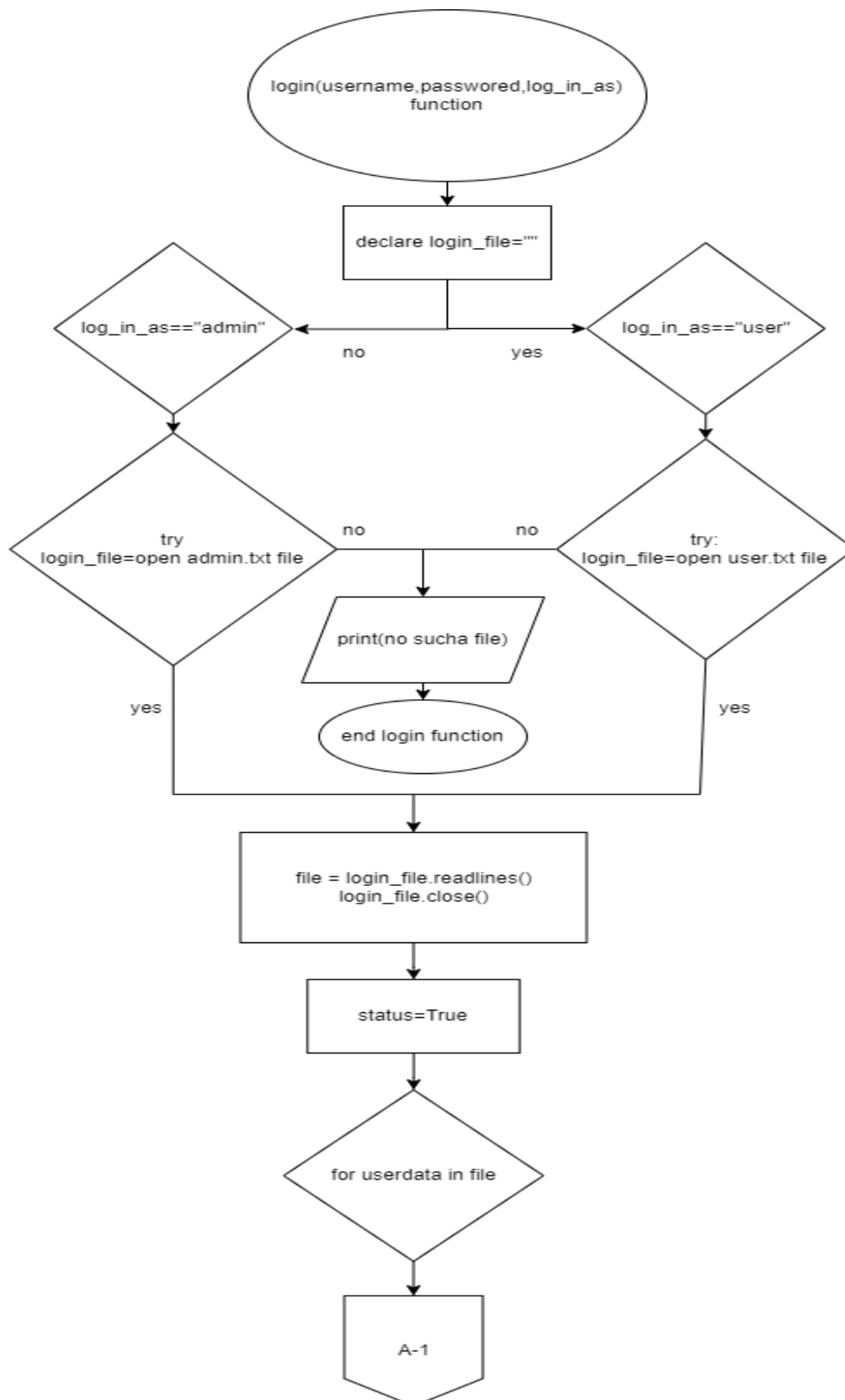
Online shopping was the greatest option to tackle the majority of concerns during the COVID-19 pandemic, including how to purchase groceries. However, the convenience of an online grocery shop ensured that customers didn't have to make the trip to the market on their own to buy their groceries.

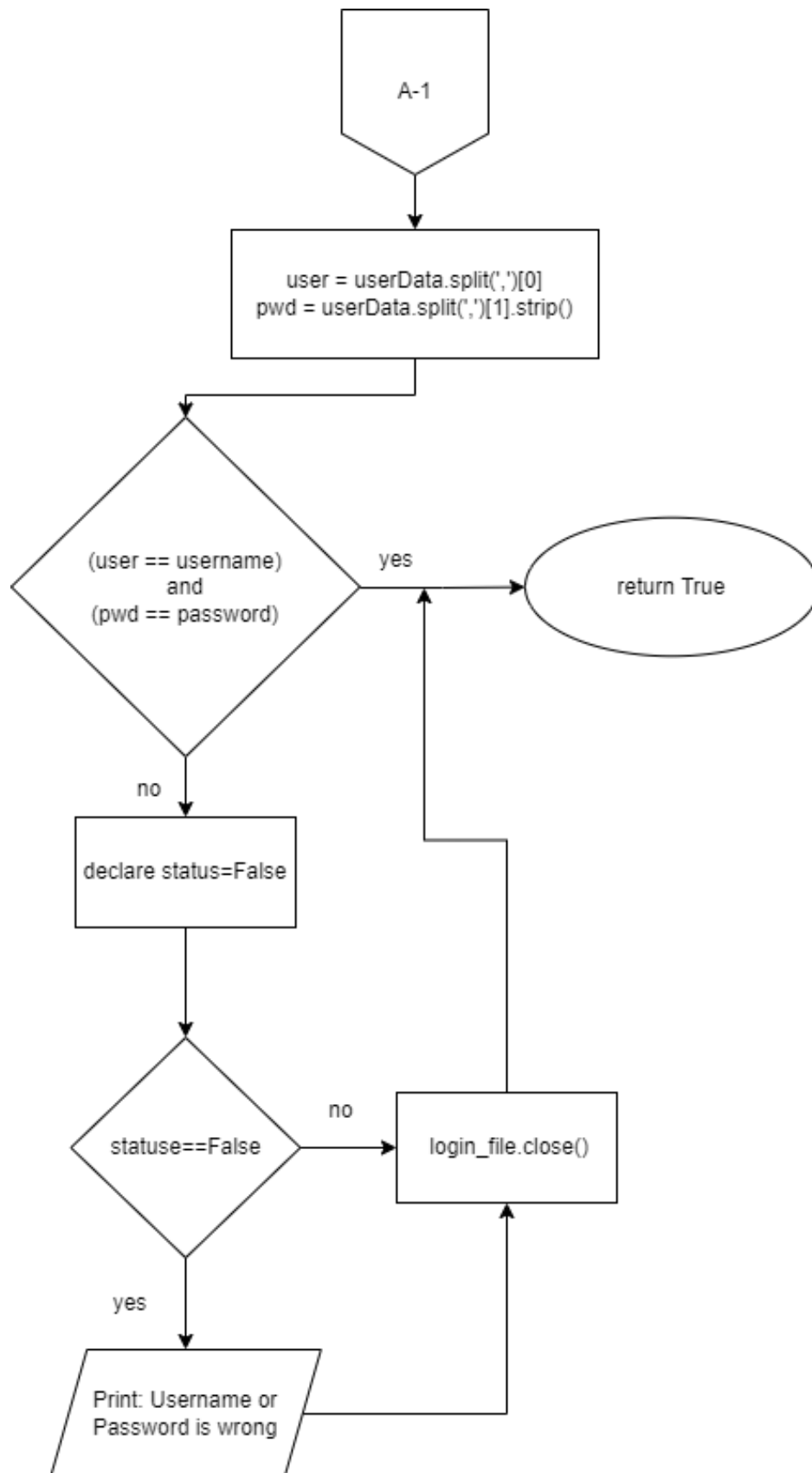
I was hired by FRESHCO Sdn Bhd, a major company in Malaysia, to develop a program for a grocery store for the company.

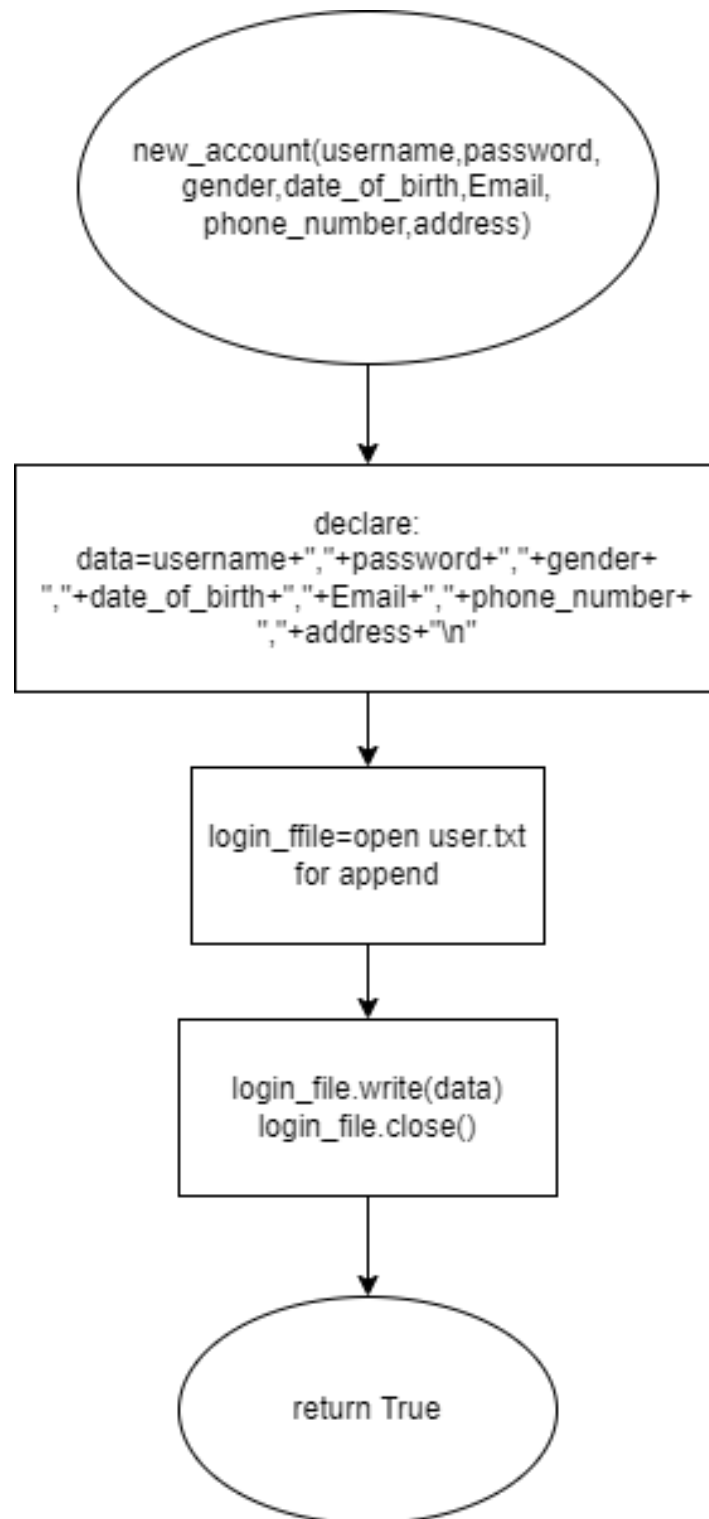
The first person to utilise this program will need to be a customer of the grocery store, and they must be able to access the menu, place a new order, see their own order, and view their own information. Additionally, this consumer has to have an account. The second user is known as the admin, and their responsibilities include adding, modifying, and deleting groceries, as well as going over orders placed by prior customers. The last user category is for guests, who may either browse the grocery store or create a new account if they so want.

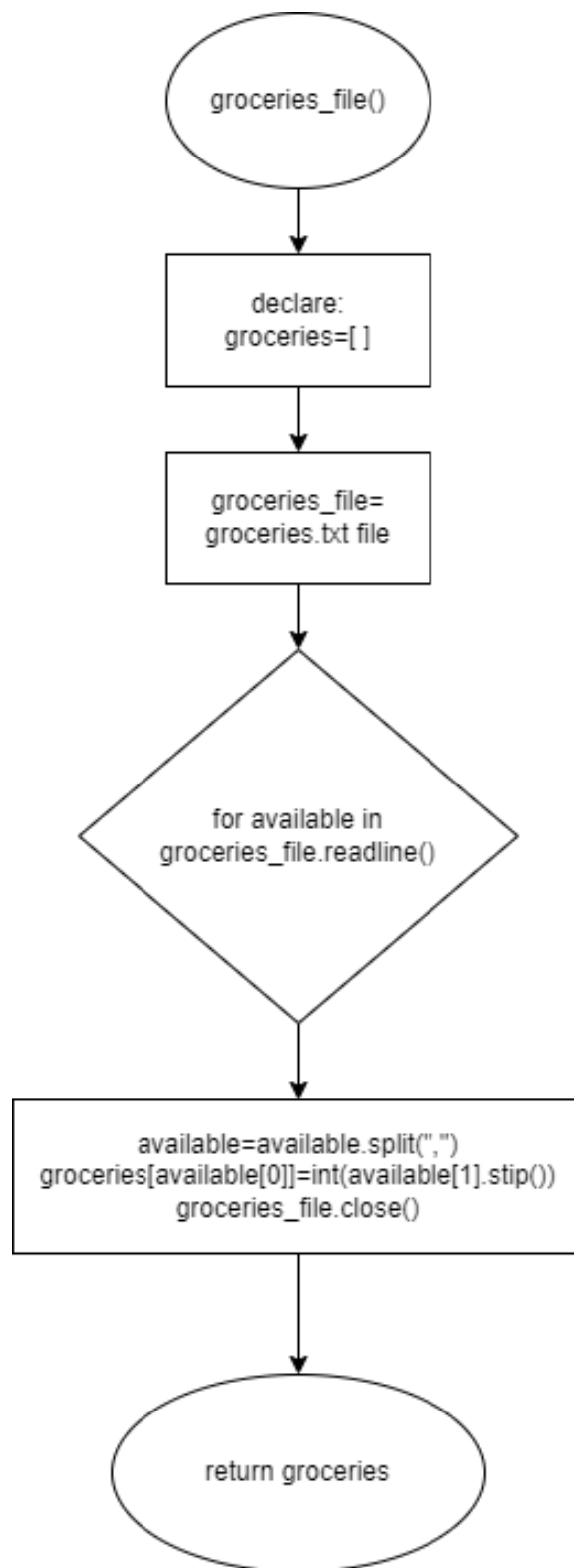
For this program, I will be using Python as the programming language. The creation of the program that fulfils the requirements of both the store and its customers is one of the things that are expected of me. I will be providing this program with a Flowchart and pseudocode, also samples of the program with justification. All the information will be saved to text files that will be sent with the project file.

## Flowchart



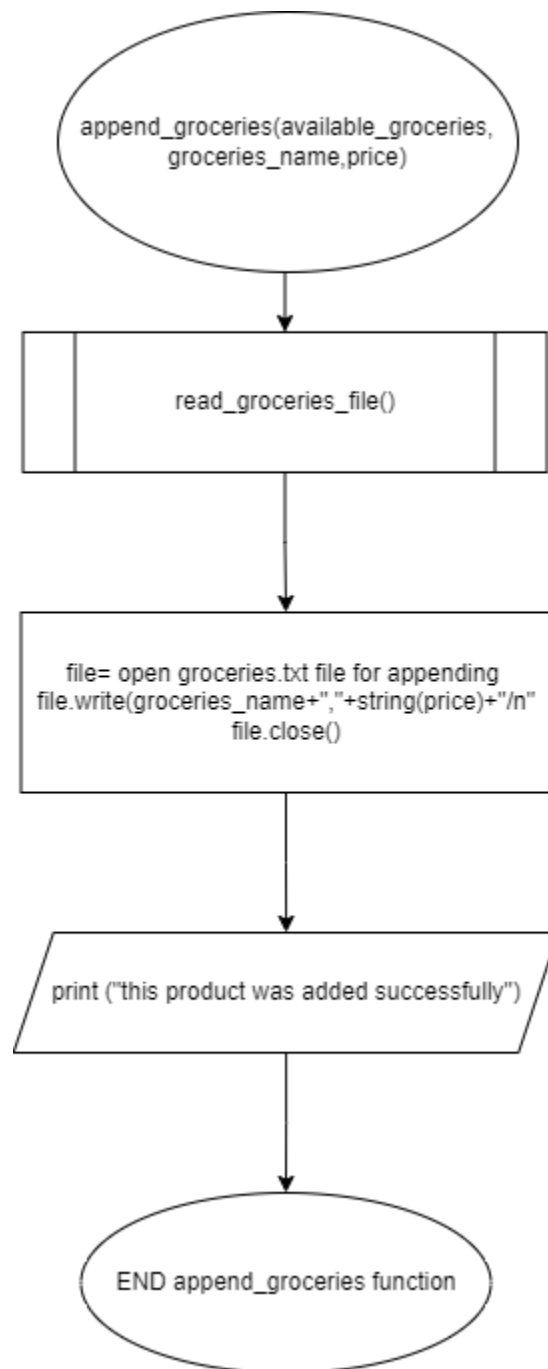


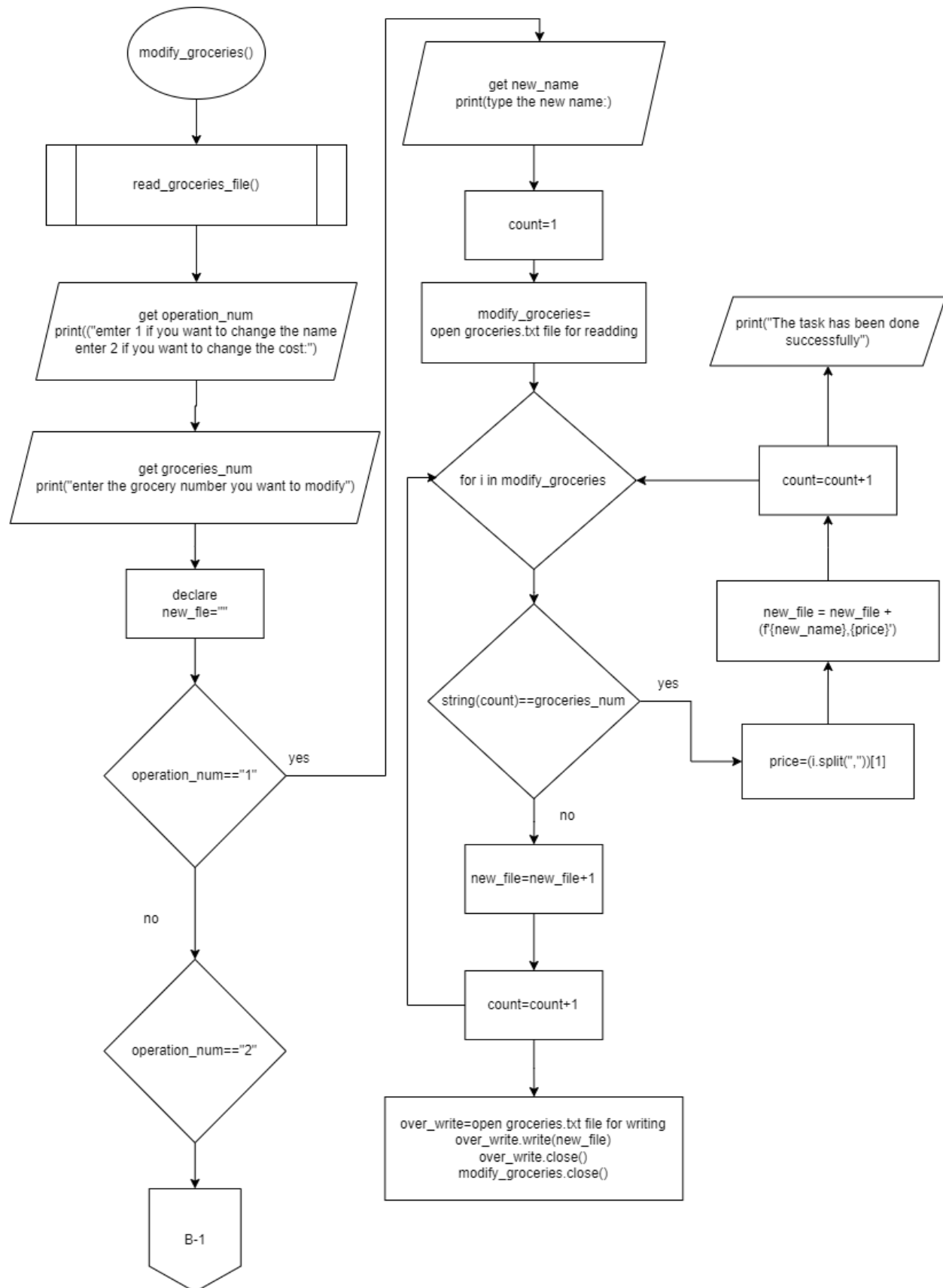


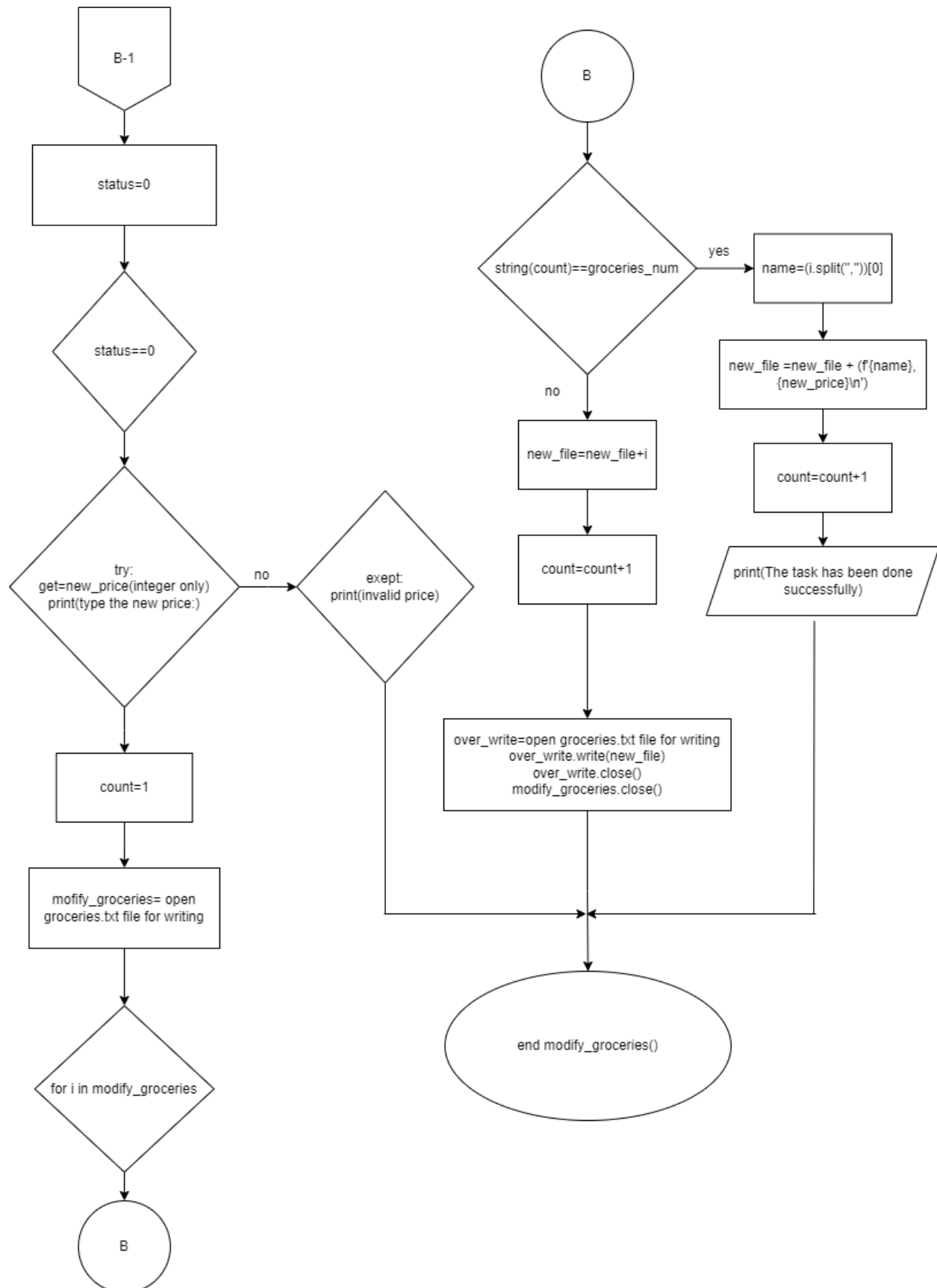


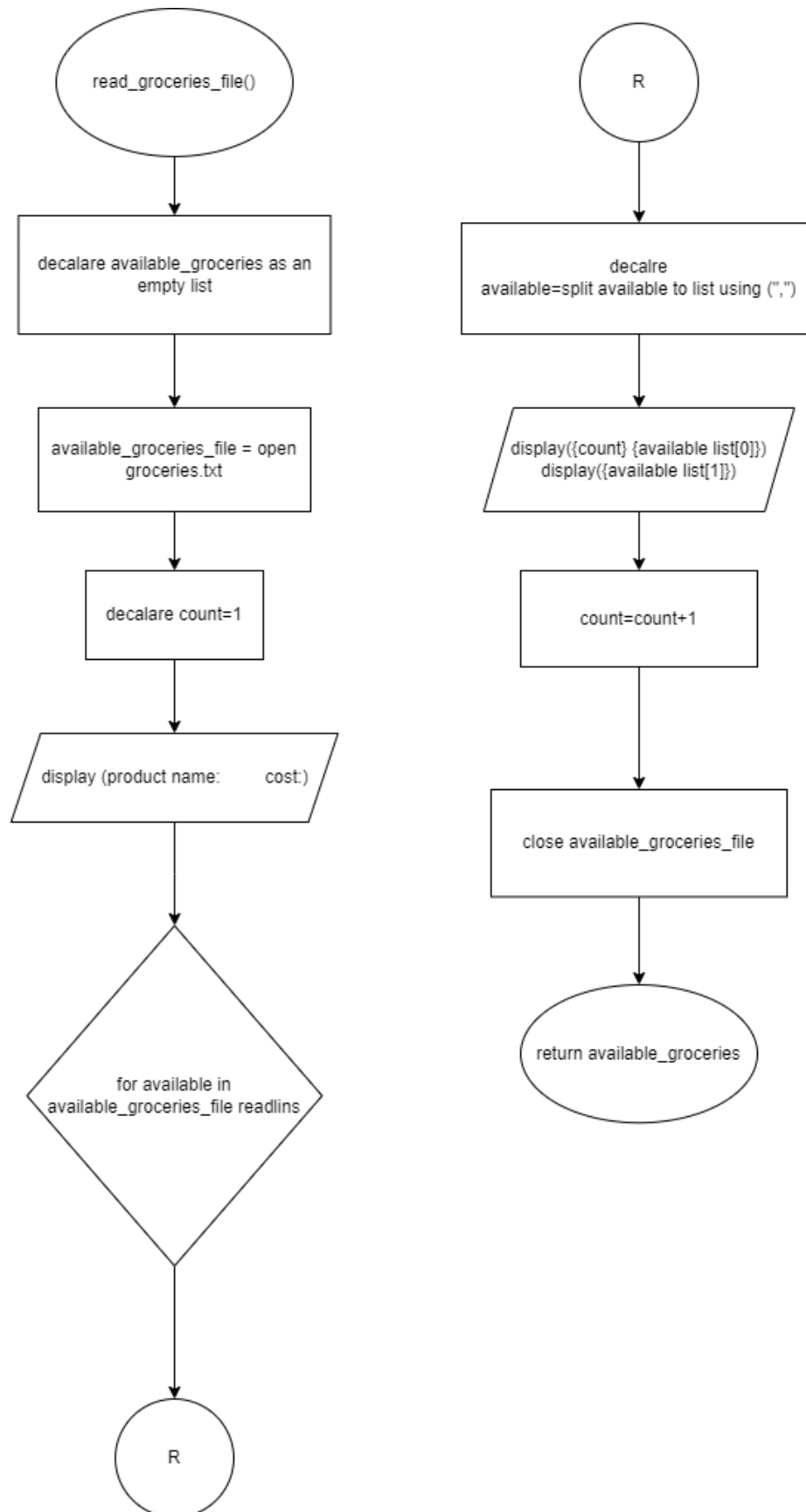


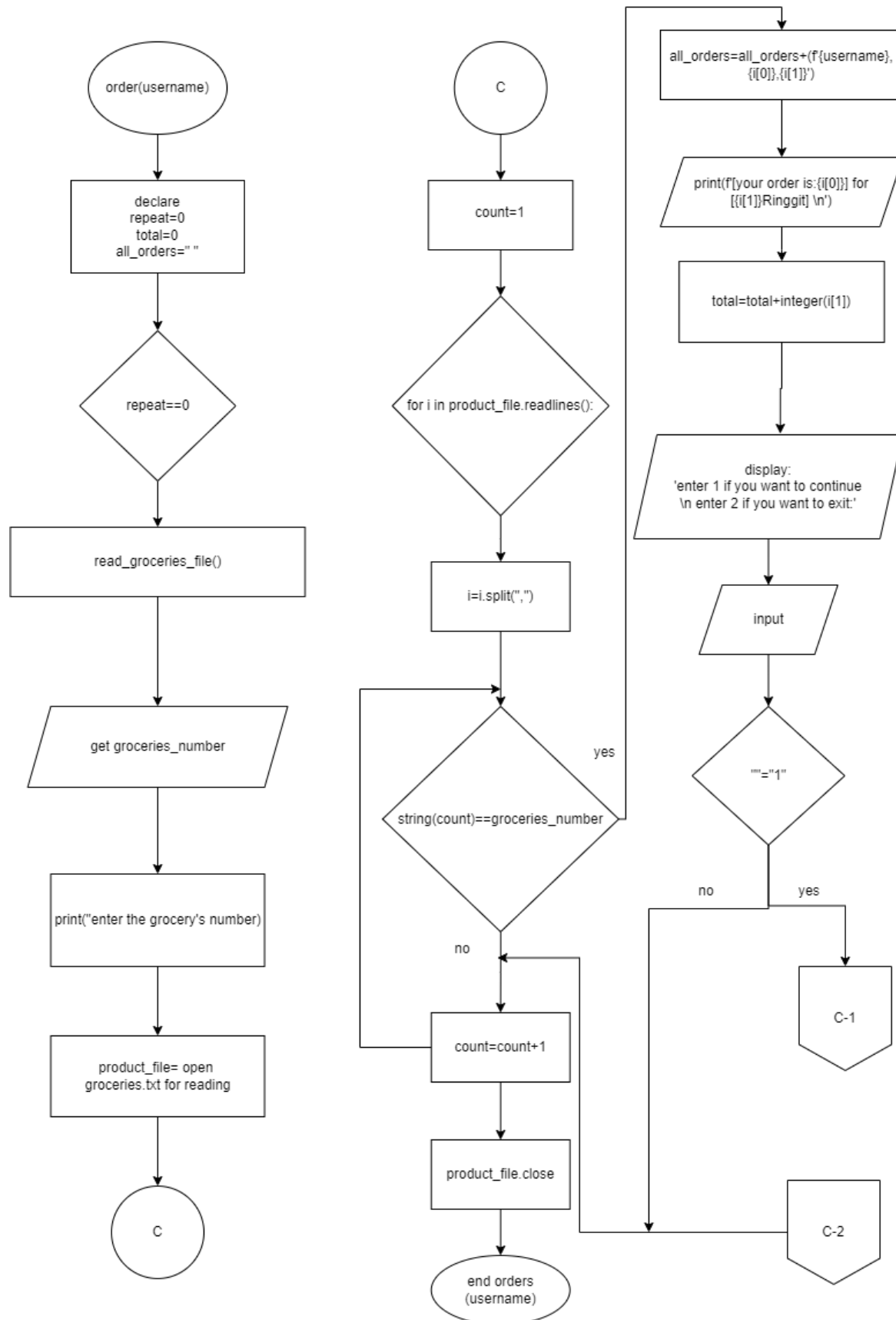


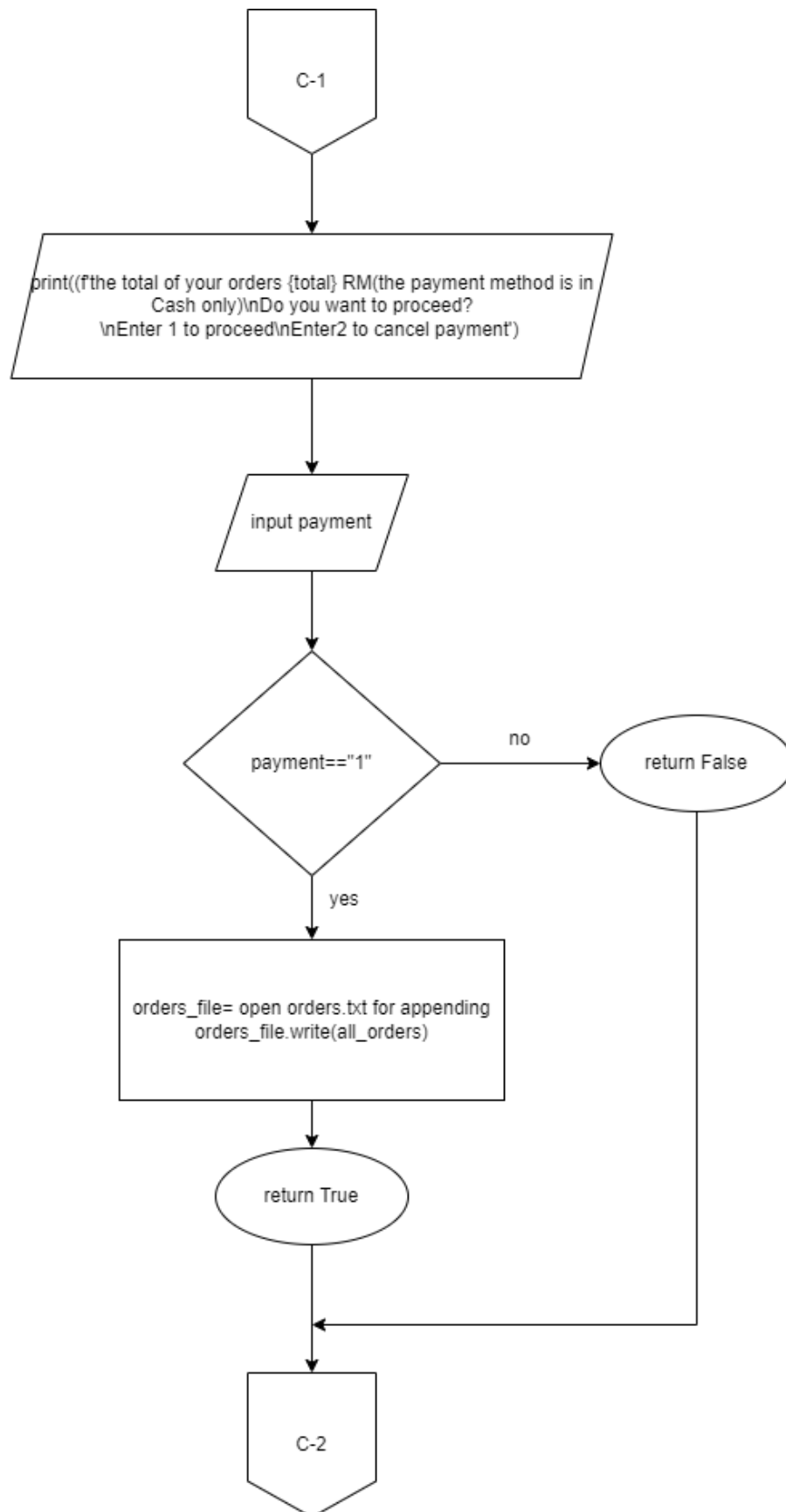


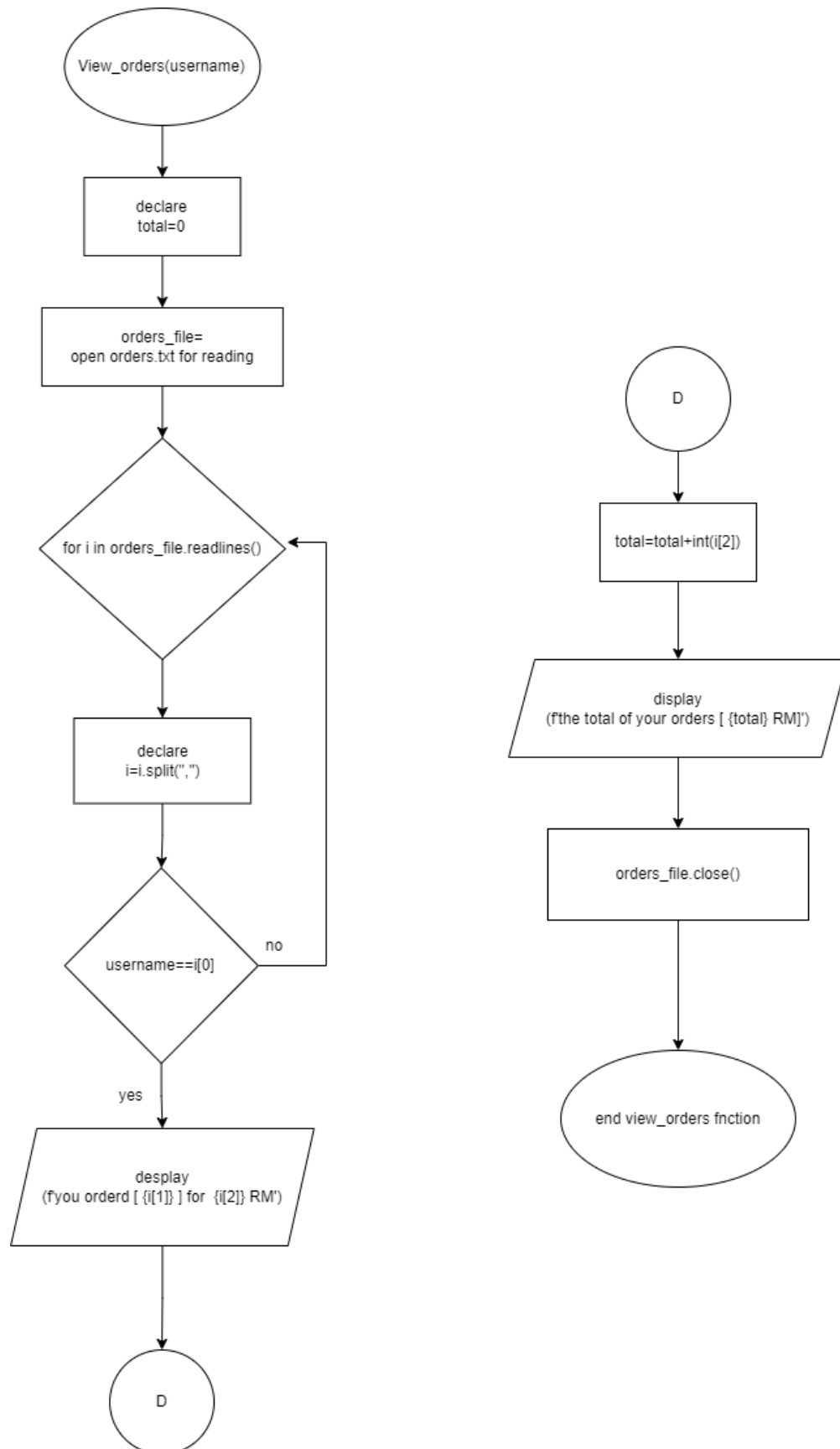


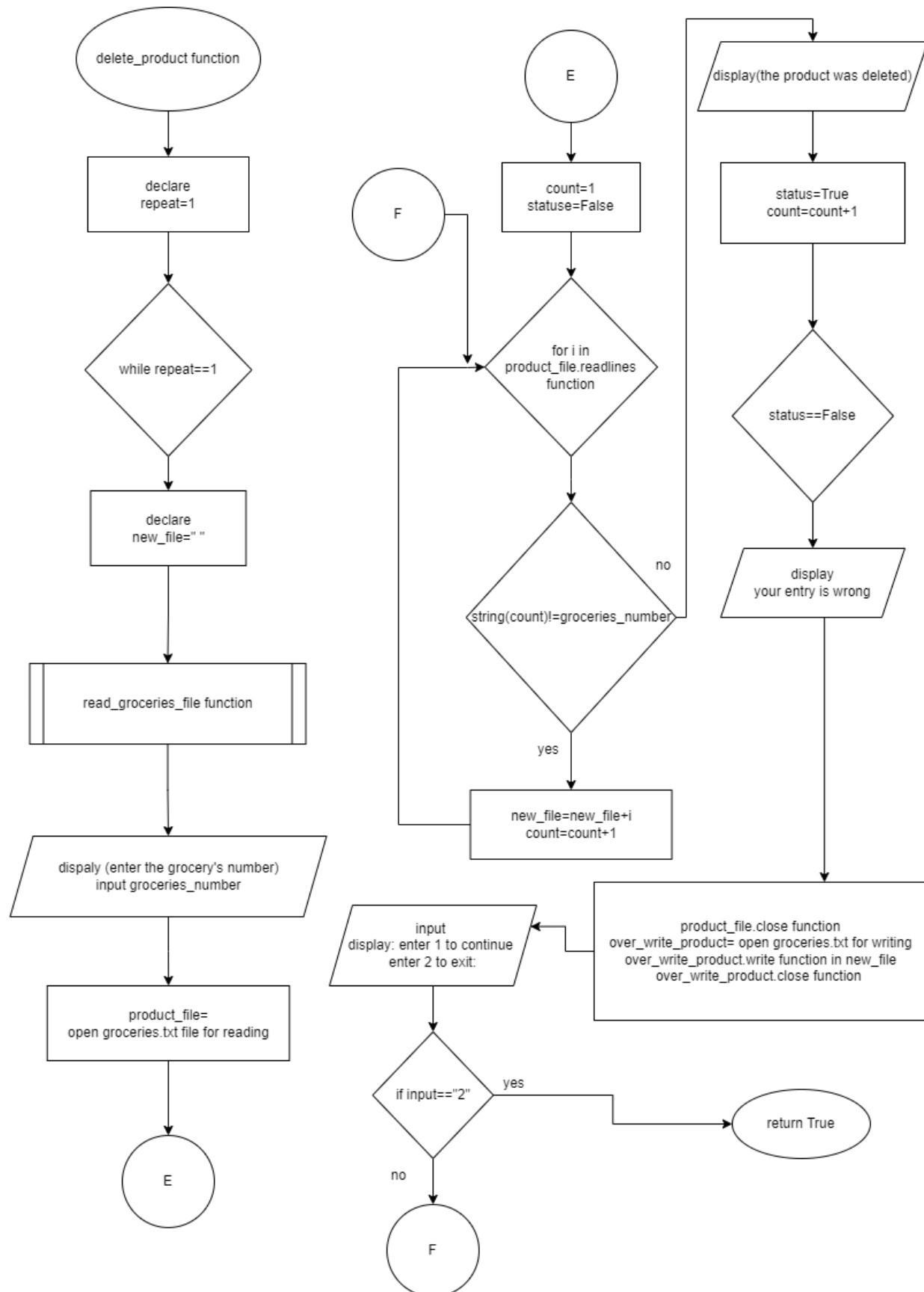




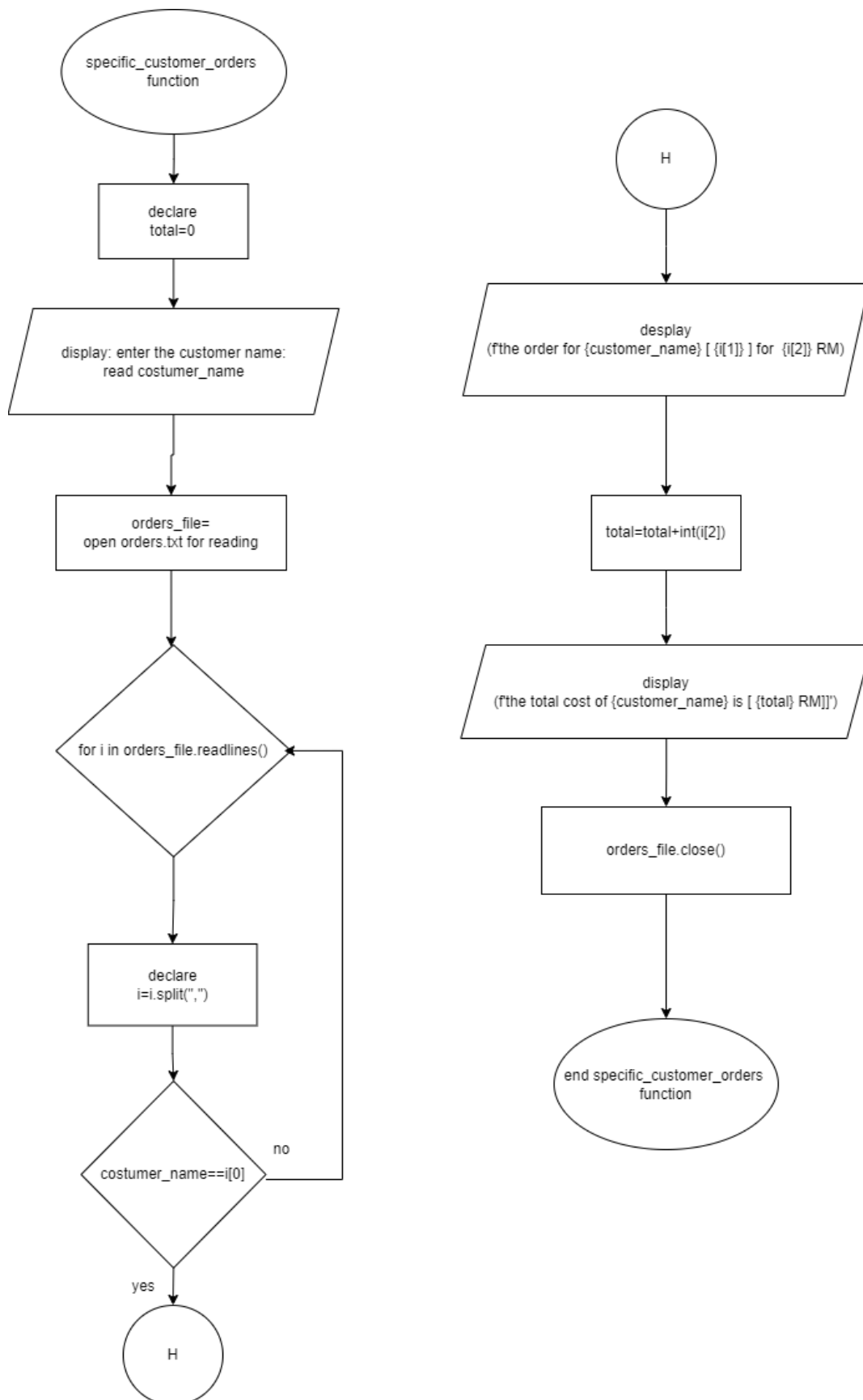


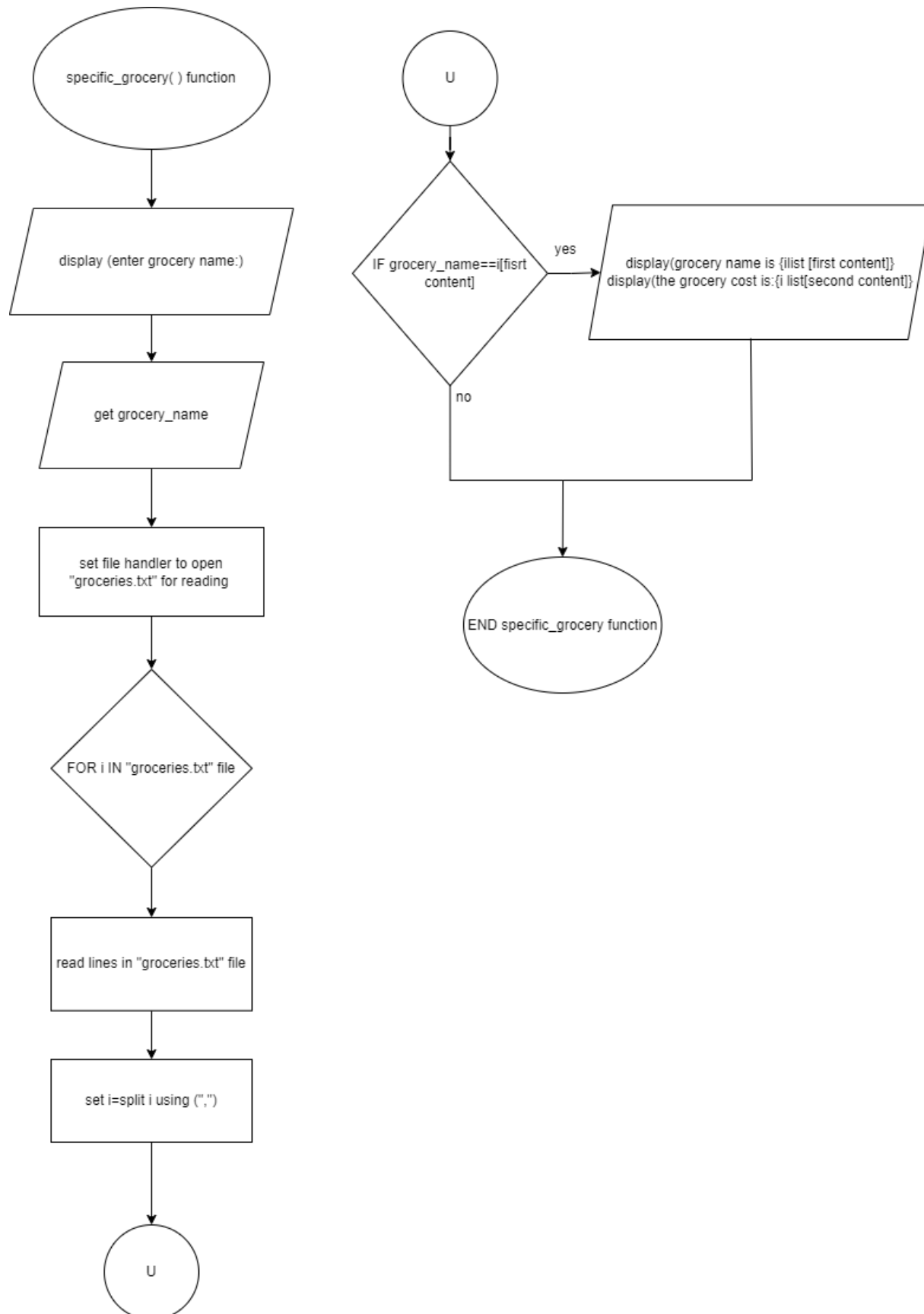


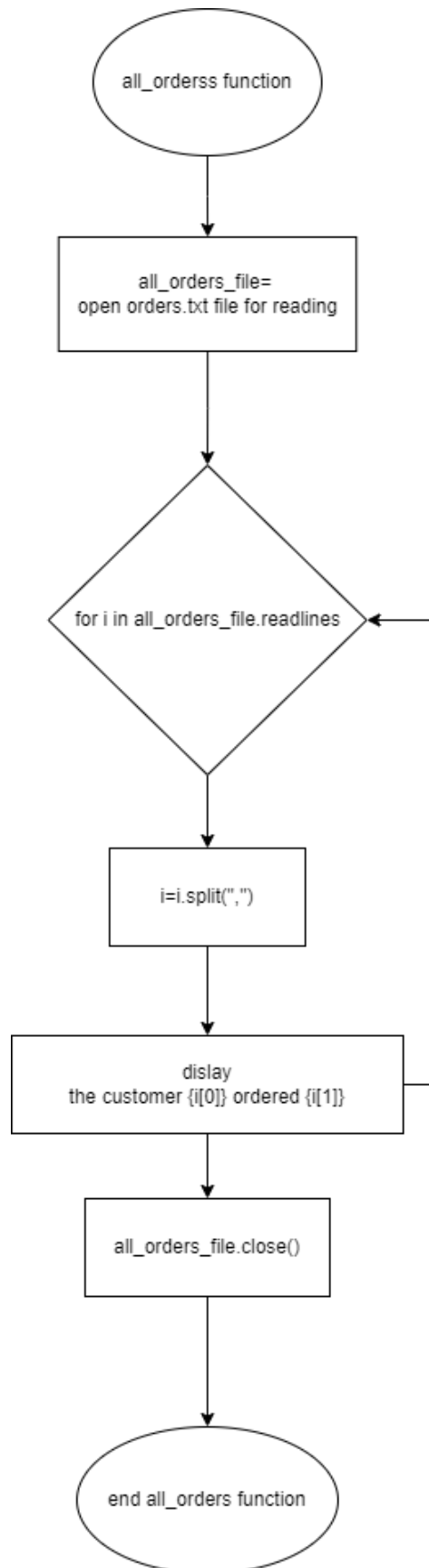


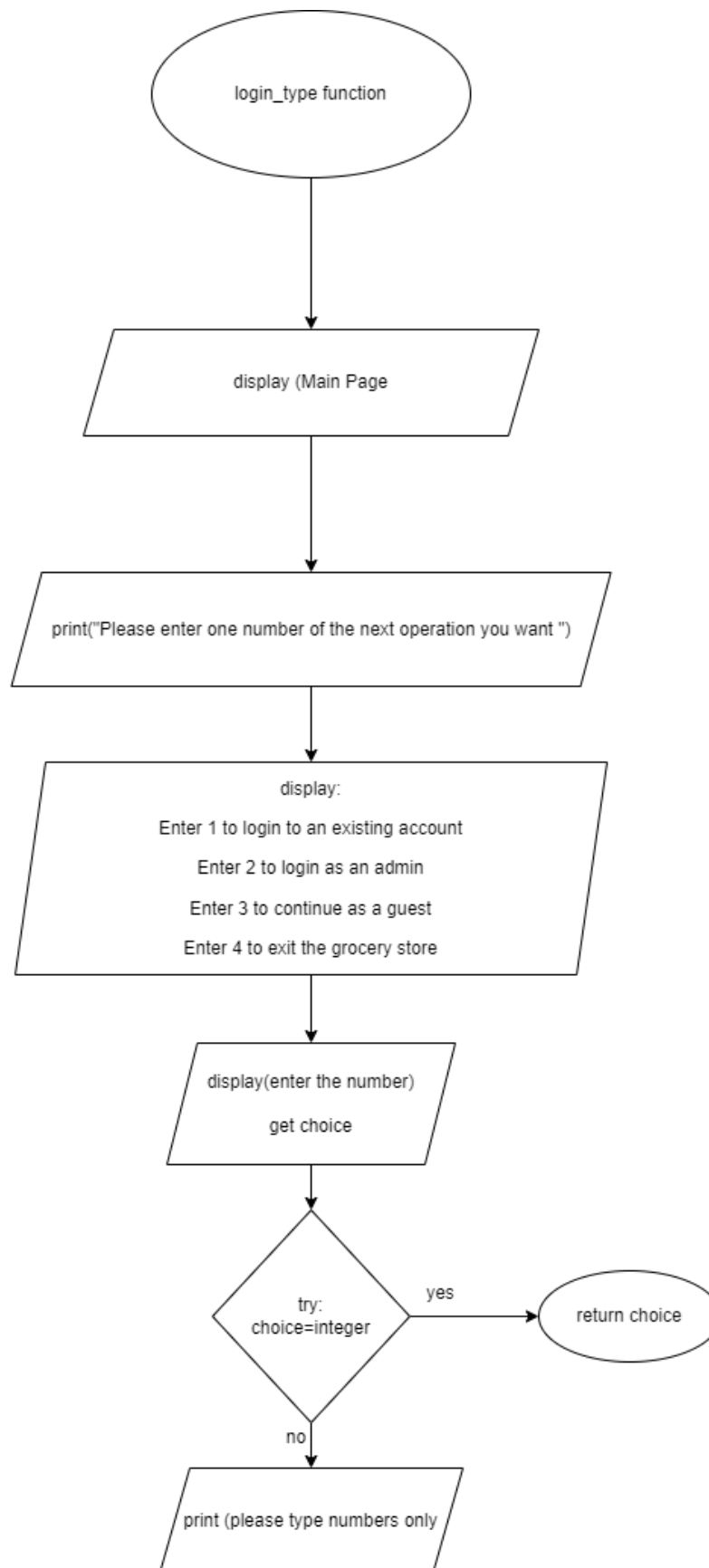


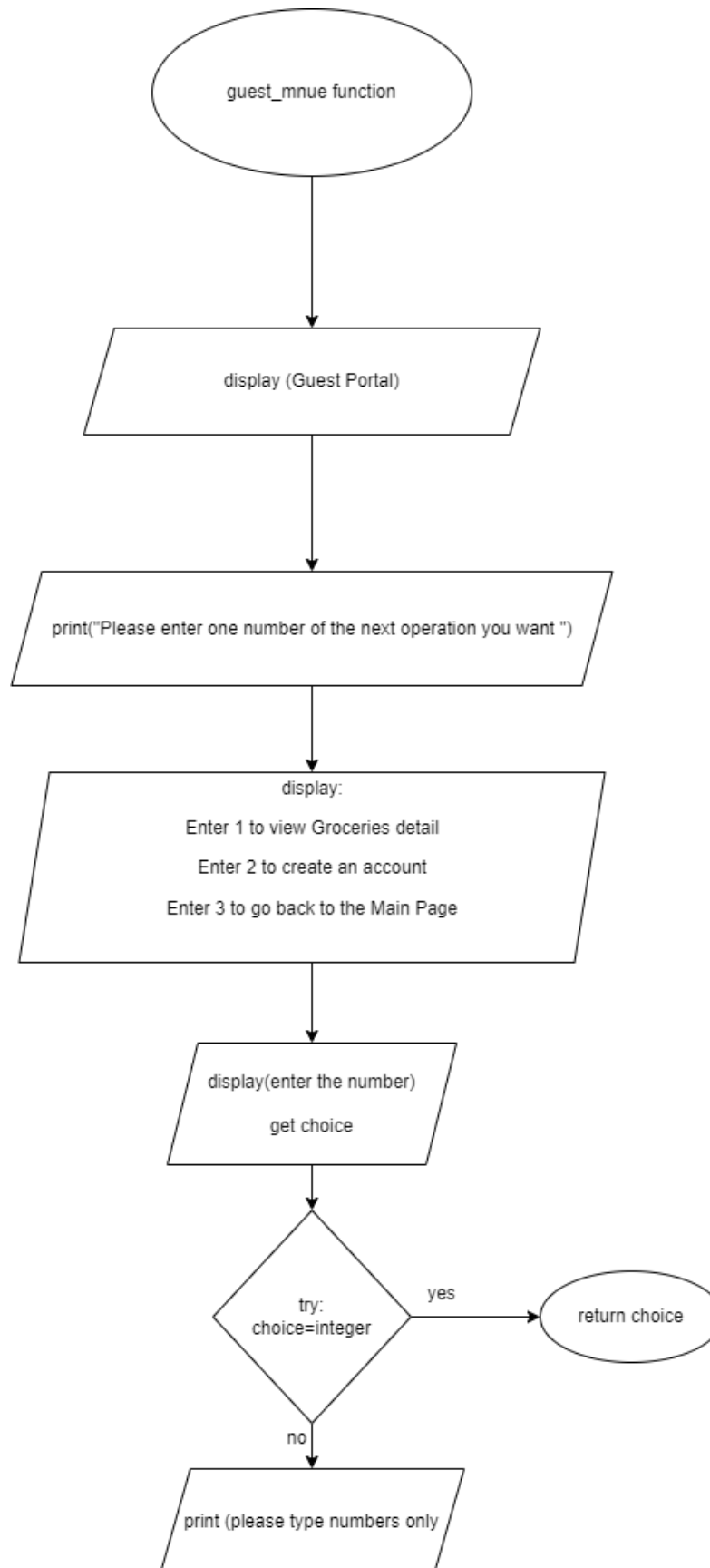


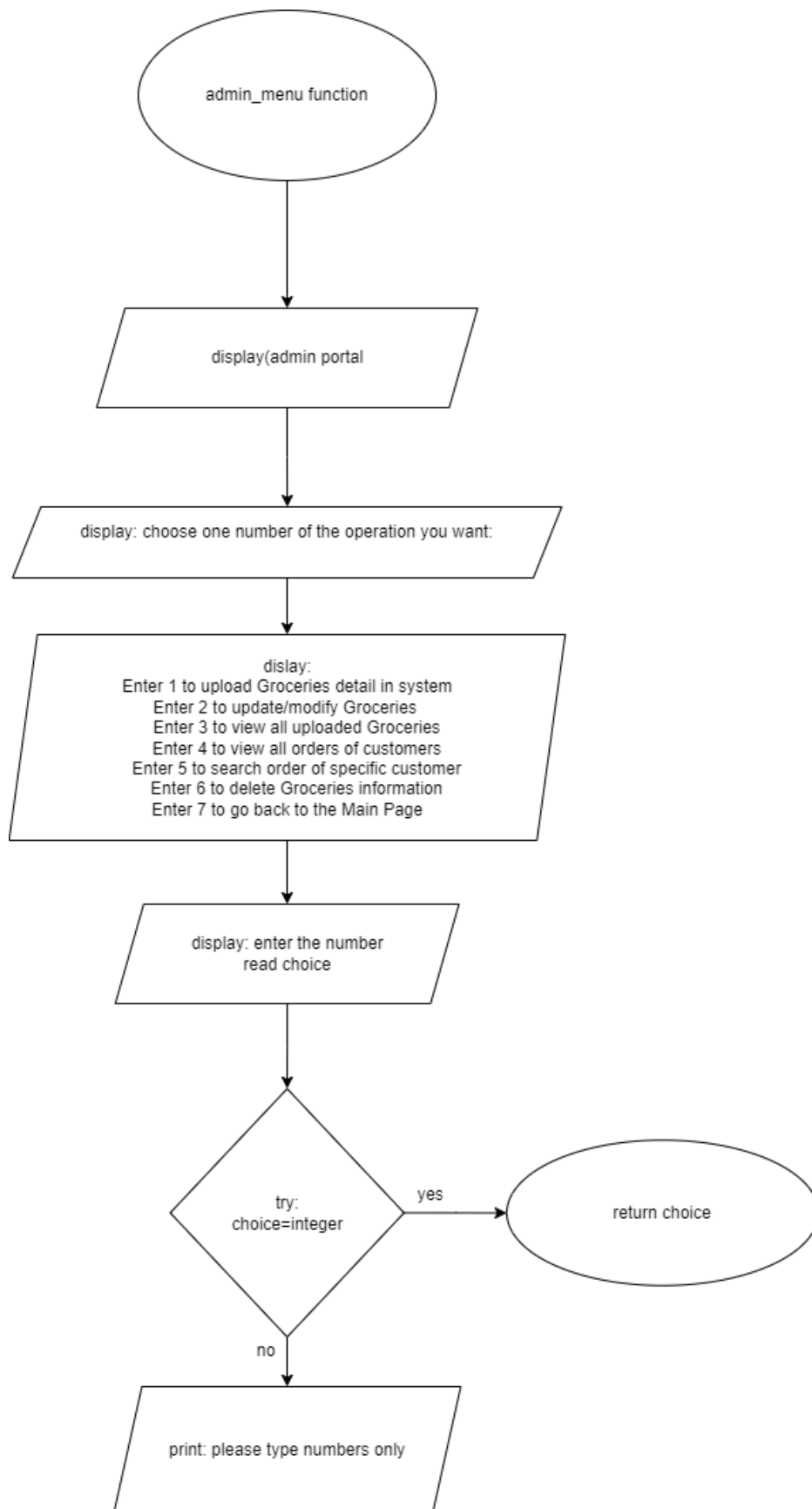


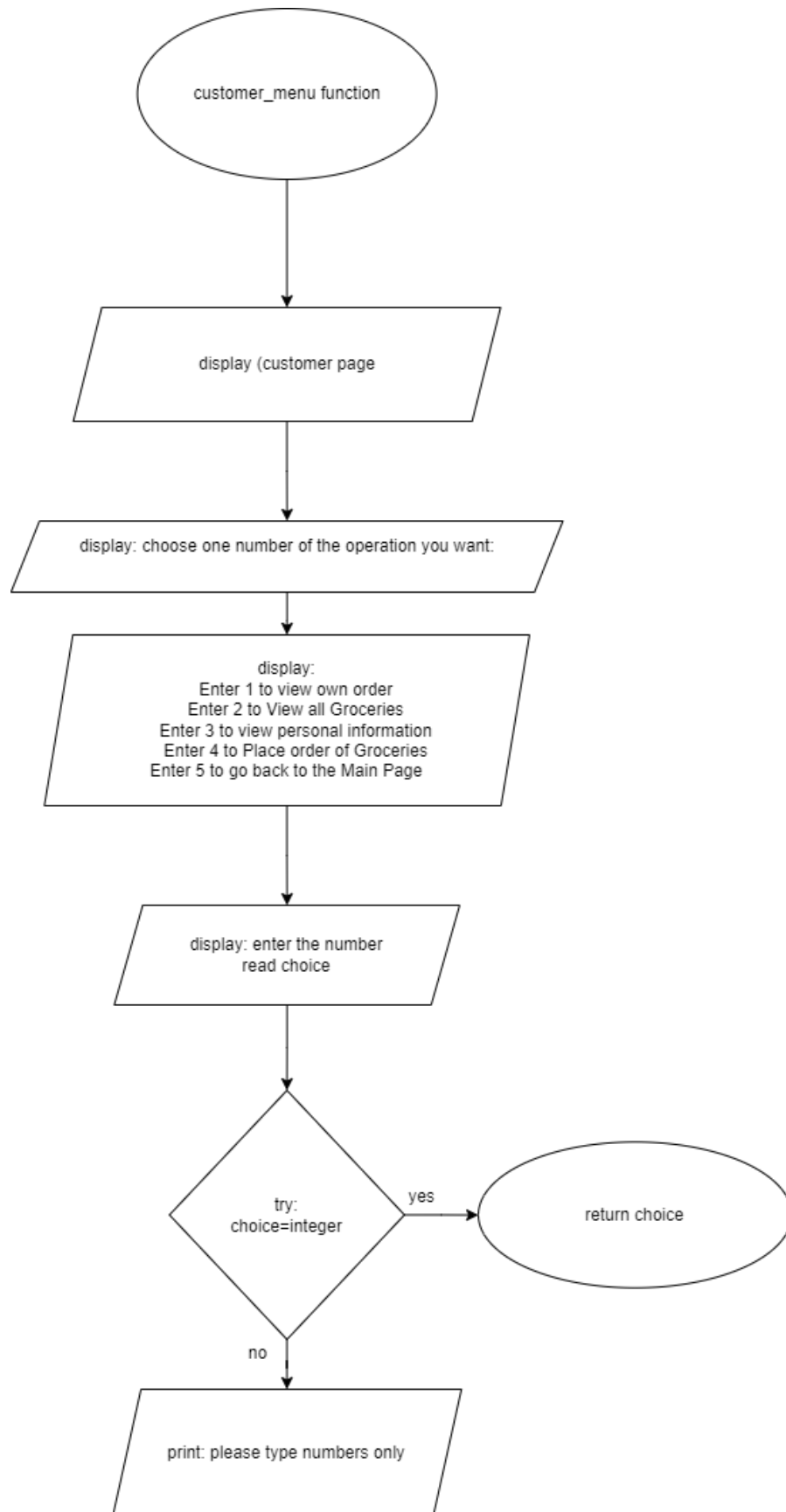


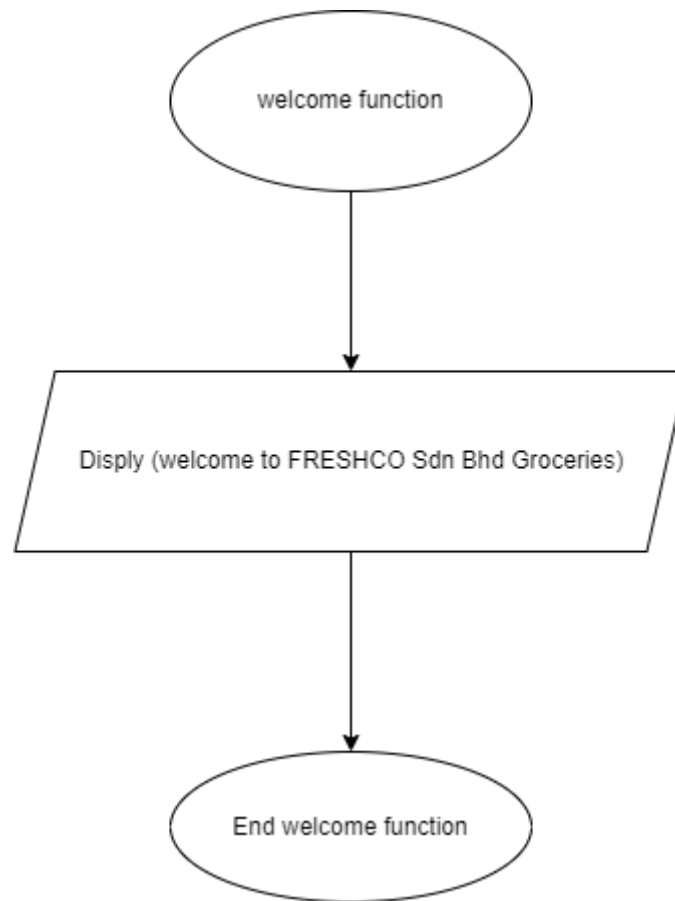




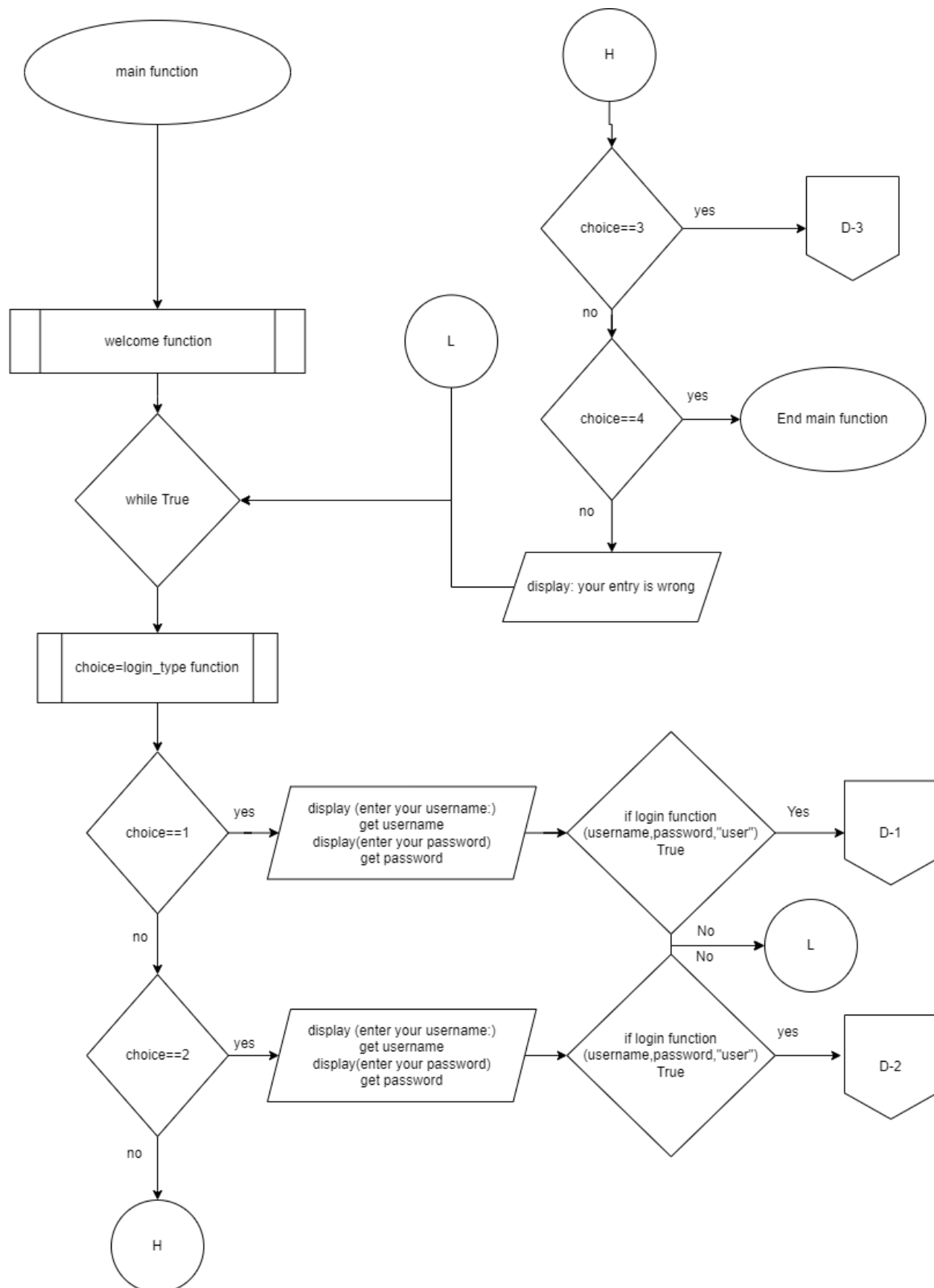


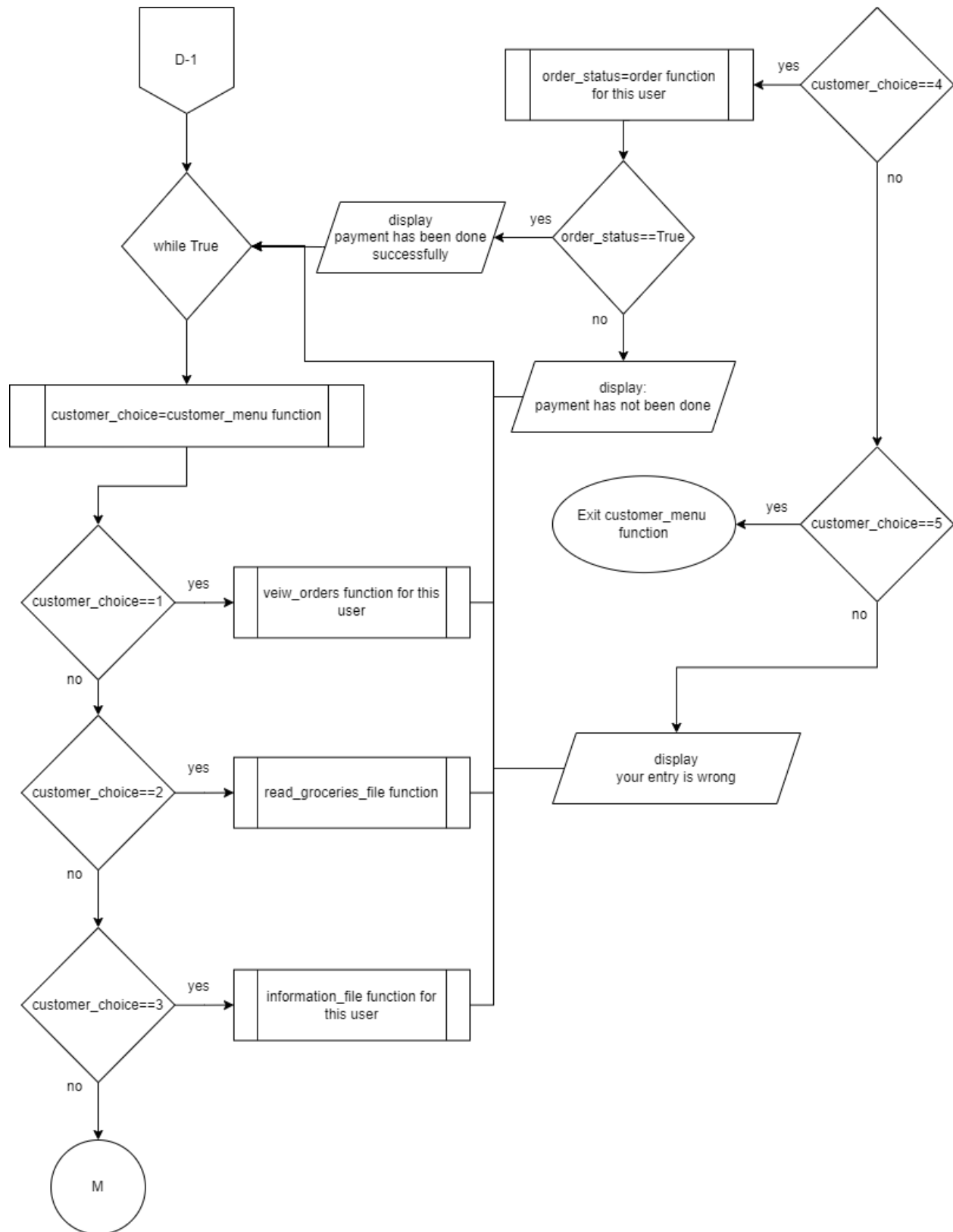


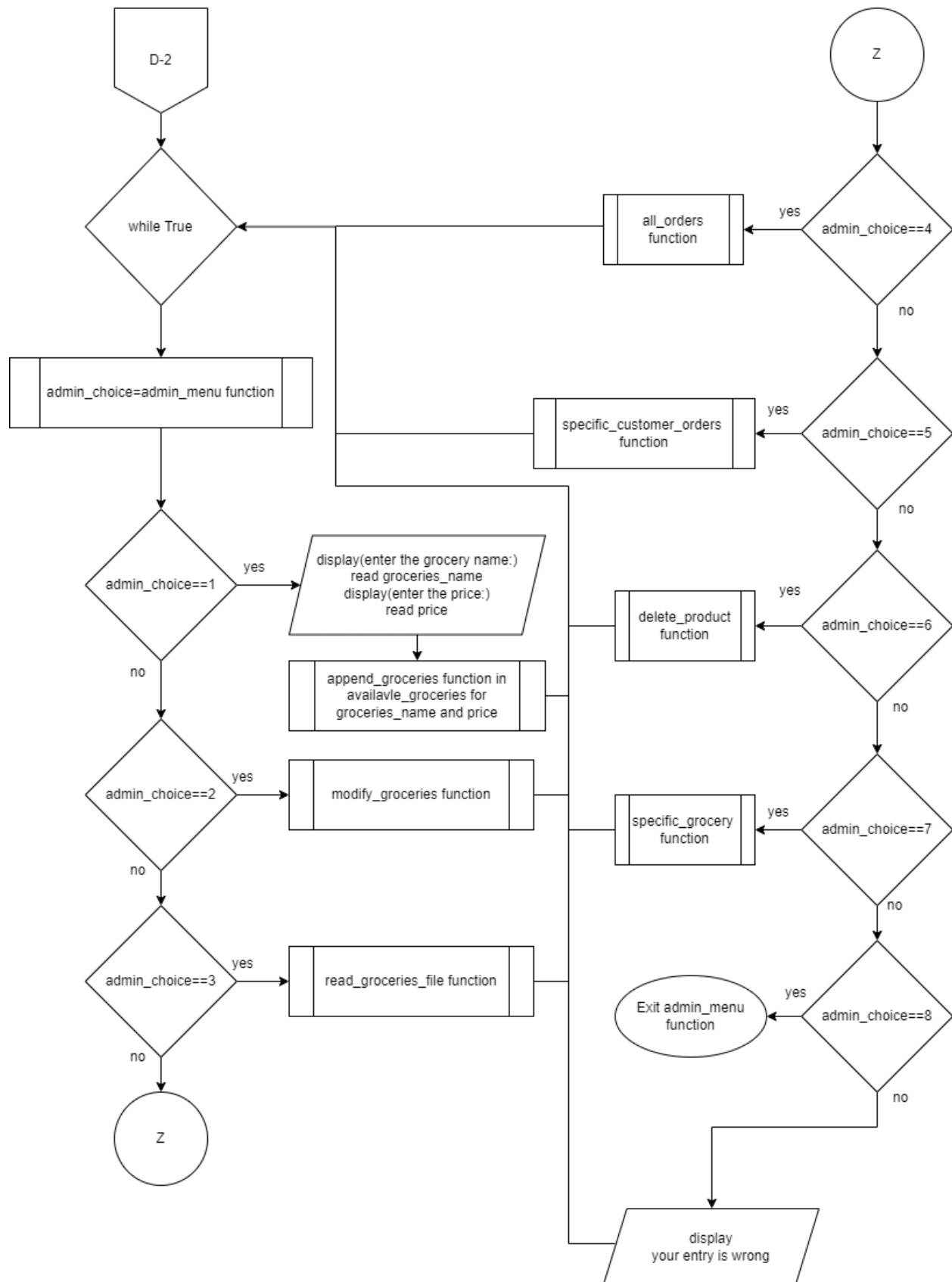


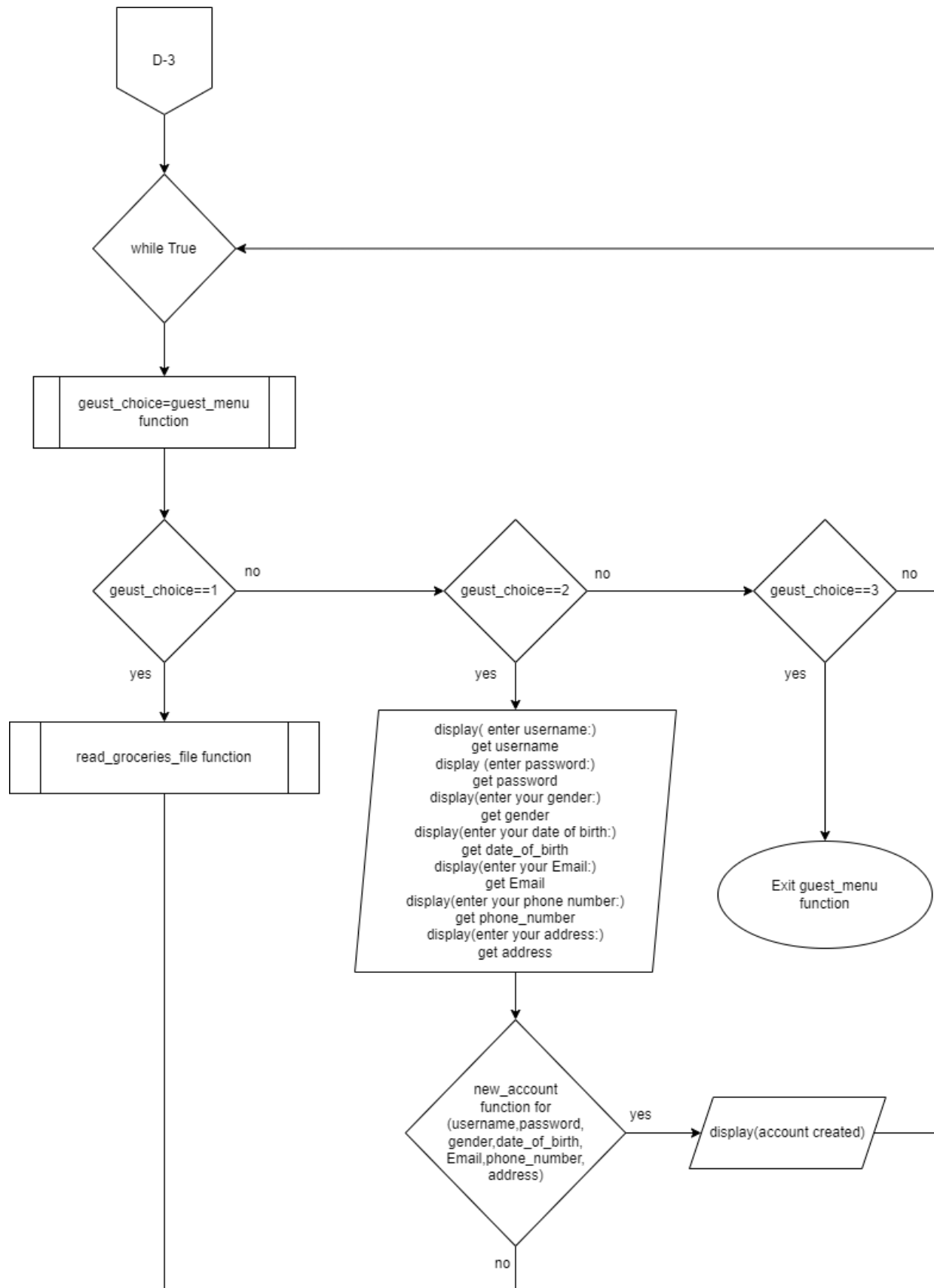












## Pseudocode

Define login (PARAMETER: username, password,log\_in\_as) function

1. Start login function
2. Set Login\_file=""
3. IF log\_in\_as == "user" THEN
  - 3.1. Try:
    - 3.1.1. Set file handler to open "user.txt" file
  - 3.2. Except:
    - 3.2.1. print "no such a file"
4. ELSE IF log\_in\_as == "admin"
  - 4.1. Try:
    - 4.1.1. Set file handler to open "admin.txt"
  - 4.2. Except:
    - 4.2.1. print "No such a file"
5. ENDIF
6. Read lines in "user.txt" file and "admin.txt" file
7. Close file handler
8. Set Status=True
9. FOR userData IN "user.txt" file and "admin.txt" file
  - 9.1. User = userData line split to list using (,) [first content]
  - 9.2. pwd = userData line split to list using (,) [second content] using STRIP function
    - 8.3.1. IF (user == username) and (pwd == password) THEN
      - 8.3.1.1. Return True
    - 8.3.2. ELSE
      - 8.3.2.1. Status=False
    - 8.3.3. ENDIF
    - 8.3.4. IF Status==False THEN
      - 8.3.4.1. Print "Username or Password is wrong"
    - 8.3.5. ENDIF
9. ENDFOR

10. Close file handler
11. END login function

Define new\_account (PARAMETER: username, password, gender, date\_of\_birth, Email, phone\_number, address) function

1. Start new\_account function
2. Set Data=username+","+password+","+gender+","+date\_of\_birth+","+Email+  
"+phone\_number+","+address+"\n"
3. Set file handler to open "user.txt" file for APPENDING
4. Write into "user.txt" file (Data)
5. Close file handler
6. Return True
7. END new\_account function

Define groceries\_file( ) function

1. Start groceries\_file function
2. Set Groceries as list to save into it
3. Set file handler to open “groceries.txt” file
4. FOR available IN “groceries.txt”
  - 4.1. Read lines in “groceries.txt” file
  - 4.2. Set available=split to list using (“,”)
  - 4.3. For groceries in available list [first content]=convert to for groceries integer in available list [second content]
  - 4.4. Close file handler
  - 4.5. Return groceries
5. END groceries\_file function



Define information\_file (PAREMETR:username)

1. Start information\_file function
2. Set file handler to open “user.txt” file for reading
3. FOR i IN “user.txt” file
  - 3.1. Read lines in “user.txt” file
  - 3.2. Set i=split i to list using(“,”)
  - 3.3. IF (username= i list [first content] THEN
    - 3.3.1. Set customer\_information as an empty LIST
    - 3.3.2. Set count=0
  - 3.4.ENDIF
    - 3.4.1. DOWHILE (count<string length in i LIST)
      - 3.4.1.1. Append into “user.txt” file i LIST [count]
      - 3.4.1.2. Calculate count=count+1
    - 3.4.2. ENDDO
4. ENDFOR
5. Display your username is: [ the first content in customer\_information list]
6. Display your password is: [ the second content in customer\_information list]
7. Display your gender is: [ the third content in customer\_information list]
8. Display your birthday is: [ the fourth content in customer\_information list]
9. Display your Email is: [ the fifth content in customer\_information list]
10. Display your phone number is: [ the sixth content in customer\_information list]
11. Display your address is: [ the seventh content in customer\_information list]
12. END information\_file function

Define append\_groceries (PAREMETER: available\_groceries,groceries\_name,price) function

1. Start append\_groceries function
2. Read\_groceries\_file function
3. Set file handle to open “groceries.txt” file for APPENDING
4. Write into “groceries.txt” file
5. Close file handler
6. Display (this product was added successfully)
7. END append\_groceries function

Define modify\_groceries( ) function

1. Start modify\_groceries function
2. Read\_groceries\_file function
3. Display (enter 1 if you want to change the name, enter 2 if you want to change the cost:)
4. Get operation\_num
5. Display (enter the grocery number you want to modify:)
6. Get groceries\_num
7. Set new\_file=""
8. IF operation\_num=="1" THEN
  - 8.1.Display (type the new amount:)
  - 8.2.Get new\_name
  - 8.3.Set count=1
  - 8.4.Set file1 handler to open "groceries.txt" file for READING
  - 8.5.FOR i IN modify\_grocereis
    - 8.5.1. IF string(count)==groceries\_num THEN
      - 8.5.1.1. Set price=split i to list using (",")[the second content]
      - 8.5.1.2.Set new\_file=new\_file+(new\_name,price)
      - 8.5.1.3.Calculate count=count+1
      - 8.5.1.4.Display (the task has been done successfully)
    - 8.5.2. ELSE
      - 8.5.2.1. Set new\_file=new\_file+i
      - 8.5.2.2. Calculate count=count+1
    - 8.5.3. ENDIF
  - 8.6.Set file2 handler to open "groceries.txt" file for WRITING
  - 8.7.Write into "groceries.txt" file (new\_file)
  - 8.8.Close file2 handler
  - 8.9.Close file1 handler
  - 8.10. ENDFOR
9. ELSEIF operation\_num=="2"
  - 9.1.Status =0

```
9.2.DOWHILE status==0
    9.2.1. Try:
        9.2.1.1.Display (type the new price:)
        9.2.1.2.Get new_price as INTEGER only
        9.2.1.3.Set status=1
    9.2.2. Except:
        9.2.2.1.Display (invalid price)
9.3.ENDDO
9.4.Set count=1
9.5.Set file3 handler to open “groceries.txt” file for READING
9.6. FOR i IN “groceries.txt” file
    9.6.1. IF String(count)==”groceries.txt” file THEN
        9.6.1.1.Set name= split i to list using (“,”)[the first content]
        9.6.1.2.Set new_file=new_file+(name,new_price)
        9.6.1.3.Calculate count=count+1
        9.6.1.4.Display (the task has been done successfully)
    9.6.2. ELSE
        9.6.2.1.Set new_file=new_file+i
        9.6.2.2.Calculate count=count+1
    9.6.3. ENDIF
9.7.Set file4 handler to open “groceries.txt” for WRITING
9.8.Write into “groceries.txt” file (new_file)
9.9.Close file4 handler
9.10.    Close file3 handler
9.11.    ENDFOR
10. END modify_grocereis( ) function
```

Define order(PAREMETER: username) function

1. Start order function
2. Set repeat=0
3. Set total=0
4. Set all\_orders to save into it
5. DOWHILE repeat==0
  - 5.1.read\_groceries\_file( ) function
  - 5.2.Display (enter the grocery's number:)
  - 5.3.Get groceries\_number
  - 5.4.Set file1 handler to open "groceries.txt" file for READING
  - 5.5.Set count=1
  - 5.6.FOR i IN "groceries.txt" file
    - 5.6.1. Read lines in "groceries.txt" file
    - 5.6.2. Set i=split i to list using(",")
    - 5.6.3. IF string(count)==groceries\_nmber THEN
      - 5.6.3.1.Set all\_orders=all\_orders+(username,  
i list[first content], i list[second content])
      - 5.6.3.2.Display (your order is: (i list[first content]) for (i list[second content]  
Ringgit)
      - 5.6.3.3.Calculate total=total+INTEGER(i list[second content])
      - 5.6.3.4.Display (enter 1 if you want to continue, enter 2 if you want to proceed  
to payment:)
      - 5.6.3.5.Get input
      - 5.6.3.6.IF input=="1" THEN
        - 5.6.3.6.1. Break
      - 5.6.3.7.ELSE
        - 5.6.3.7.1. Display (the total of your orders {total} RM (the payment is in  
cash only) Do you want to proceed? Enter 1 to proceed, enter 2  
to cancel payment)
      - 5.6.3.8.ENDIF
      - 5.6.3.8.1. Get payment

```
5.6.3.8.2. IF payment=="1" THEN
    5.6.3.8.2.1.Set file2 handler to open "orders.txt." file for APPENDING
    5.6.3.8.2.2.Write into "orders.txt" file (all_orders)
    5.6.3.8.2.3.Return True
5.6.3.8.3. ELSE
    5.6.3.8.3.1.Return False
5.6.3.8.4. ENDIF
5.6.4. ELSE
    5.6.4.1.Calculate count=count+1
5.6.5. ENDIF
5.7.ENDFOR
6. Close file1 handler
7. END order function
```

Define view\_orders(PAREMETE: username) function

1. Start view\_orders function
2. Set total=0
3. Set file handler to open “orders.txt” file for READING
4. FOR i IN “orders.txt” file
  - 4.1. Read lines in “orders.txt” file
  - 4.2. Set i=split i to list using (“,”)
  - 4.3. IF username == i list[first content] THEN
    - 4.3.1. Display (you ordered {i list[second content]} for [i list[third content]} RM)
    - 4.3.2. Calculate total=total+INTEGER(i list[third content])
  - 4.4. ENDIF
5. ENDFOR
6. Display (the total of your orders {total} RM)
7. Close file handler
8. END view\_orders function

Define read\_file\_groceries( ) fnction

1. Start read\_groceries\_file function
2. Set available\_groceries as empty list
3. Set file handler to open “groceries.txt” file
4. Set count=1
5. Display(‘\n’)
6. Display(product name:     cost:)
7. FOR available IN “groceries.txt” file
  - 7.1.Set available=split available to list using (“,”)
  - 7.2.Display({count} {available list[first content]}))
  - 7.3.Display({available list[second content]}))
  - 7.4.Calculate count=count+1
  - 7.5.Close file handler
  - 7.6.Return available\_groceries
8. ENDFOR
9. END groceries\_file function



Define specific\_customer\_orders( ) function

1. Start specific\_customer\_orders function
2. Set total=0
3. Display (enter the customer name:)
4. get customer\_name
5. Set file handler to open “orders.txt” file for READING
6. FOR i IN “orders.txt” file
  - 6.1. Read lines in “orders.txt” file
  - 6.2. Set i=split i to list using (“,”)
  - 6.3. IF customer\_name == i list[first content] THEN
    - 6.3.1. Display (the order for {customer\_name} [ {i list[second content]} ] for {i list[third content]} RM
    - 6.3.2. Calculate total=total+INTEGER(i list[third content])
  - 6.4. ENDIF
7. ENDFOR
8. Display (the total cost of {customer\_name} is {total} RM)
9. Close file handler
10. END specific\_customer\_orders

Define specific\_grocery( )function

1. Start specific\_groceries function
2. Display (Enter the grocery name:)
3. Get grocery\_name
4. Set file handler to open “groceries.txt” file for reading
5. FOR i IN “groceries.txt” file
  - 5.5.Set i=split i into list using (“,”)
  - 5.6.IF grocery\_name==i list[first content] THEN
    - 5.6.1. Display (grocery name is: {i list[first content]})
    - 5.6.2. Display( the grocery cost is {i list[second content]})
  - 5.7.Close handler file
6. END specific\_grocery function

Define delete\_product( ) function

1. Start delete\_product function
2. Set repeat=1
3. DOWHILE repeat==1
  - 3.1.Set new\_file to save into it
  - 3.2.read\_groceries\_file( ) function
  - 3.3.Display (enter the grocery's number:)
  - 3.4.Get groceries\_number
  - 3.5.Set file1 handler to open "groceries.txt" file for READING
  - 3.6.Set count=1
  - 3.7.Set status=False
  - 3.8.FOR i IN "groceries.txt" file
    - 3.8.1. Read lines in "groceries.txt" file
    - 3.8.2. IF string(count)!=groceries\_number THEN
      - 3.8.2.1.Set new\_file=new\_file+i
      - 3.8.2.2.Calculate count=count+1
    - 3.8.3. ELSE
      - 3.8.3.1.Display(the product was deleted)
      - 3.8.3.2.Set statues=True
      - 3.8.3.3.Calculate count=count+1
    - 3.8.4. ENDIF
  - 3.9.ENDFOR
  - 3.10. IF statues==False THEN
    - 3.10.1. Display (your entry is wrong)
  - 3.11. ENDIF
  - 3.12. Close file1 handler
  - 3.13. Set file2 handler to open "groceries.txt" file for READING
  - 3.14. Write into "groceries.txt" file (new\_file)
  - 3.15. Close file2 handler
  - 3.16. Display (Enter 1 to continue, Enter 2 to exit)
  - 3.17. Get input

- 3.18. IF input=="2" THEN
  - 3.18.1. Return True
- 3.19. ENDIF
- 3.20. END delete\_product function

Define all\_orders( ) function

1. Start all\_orders function
2. Set file handler to open "orders.txt" file for READING
3. FOR i IN "orders.txt" file
  - 3.1. Read lines in "orders.txt" file
  - 3.2. Set i = split i to list using(",")
  - 3.3. Display (the customer {i list[first content]} orderd {i list[second content]})
4. Close file handler
5. END all\_orders function

Define login\_type( ) function

1. Start login\_type function
2. Display (Main Page)
3. Display (Please enter one number of the next operation you want)
4. Display (Enter 1 to login to an existing account  
Enter 2 to login as an admin  
Enter 3 to continue as a guest  
Enter 4 to exit the grocery store)
5. Try:
  - 5.1.Display (Enter the number :)
  - 5.2.Read Choice (INTEGER only)
  - 5.3.Return choice
6. Except:
  - 6.1.Display(please type numbers only)
7. END login\_type function

Define guest\_menu( ) function

1. Start guest\_menu function
2. Display (Guest Portal)
3. Display (Please enter one number of the next operation you want)
4. Display (Enter 1 to view Groceries detail  
Enter 2 to create an account  
Enter 3 to go back to the Main Page)
5. TRY:
  - 5.1.Display (Enter the number:)
  - 5.2.Read choice (INTEGER only)
  - 5.3.Return choice
6. EXCEPT:
  - 6.1.Display (please type numbers only)
7. END guest\_menu function

Define admin\_menu ( ) function

1. Start admin\_menu function
2. Display (Admin Portal)
3. Display (Please enter one number of the next operation you want)
4. Display (Enter 1 to upload Groceries detail IN system  
Enter 2 to update/modify Groceries  
Enter 3 to view all uploaded Groceries  
Enter 4 to view all orders of customers  
Enter 5 to search order of specific customer  
Enter 6 to delete Groceries information  
Enter 7 to go back to the Main Page)
5. TRY:
  - 5.1.Display (Enter the number:)
  - 5.2.Read choice (INTEGER only)
  - 5.3.Return choice
6. EXCEPT:
  - 6.1.Display (please type numbers only)
7. END admin\_menu function



Define customer\_menu ( ) function

1. Start customer\_menu function
2. Display (Customer Portal)
3. Display (Please enter one number of the next operation you want)
4. Display (Enter 1 to view own order

Enter 2 to View all Groceries

Enter 3 to view personal information

Enter 4 to Place order of Groceries

Enter 5 to go back to the Main Page)

5. TRY:
  - 5.1.Display (Enter the number:)
  - 5.2.Read choice (INTEGER only)
  - 5.3.Return choice
6. EXCEPT:
  - 6.1.Display (please type numbers only)
7. END customer\_menu function

Define welcome ( ) function

1. Start welcome Function
2. Display ( welcome to FRESHCO Sdn Bhd Groceries)
3. END welcome function

Define main ( ) function

1. Start main function
2. welcome function
3. DOWHILE True
  - 3.1.Set choice=login\_type function
  - 3.2.IF choice==1 THEN
    - 3.2.1. Display(enter your username)
    - 3.2.2. Get username
    - 3.2.3. Display (enter your password)
    - 3.2.4. Get password
    - 3.2.5. IF login(PAREMETER:username,password,"user") function THEN
      - 3.2.5.1.DOWHILE True
        - 3.2.5.1.1. Set customer\_choice=customer\_menu function
        - 3.2.5.1.2. IF customer\_choice==1 THEN
          - 3.2.5.1.2.1.View\_order(PAREMETER: username) function
        - 3.2.5.1.3. ELSEIF customer\_choice==2
        - 3.2.5.1.4. Read\_groceries\_file( ) function
        - 3.2.5.1.5. ELSEIF customer\_choice==3
          - 3.2.5.1.5.1.Information\_file(PAREMETER: username) function
        - 3.2.5.1.6. ELSEIF customer\_choice==4
          - 3.2.5.1.6.1.Set order\_status=order(PAREMETER:username) function
          - 3.2.5.1.6.2.IF order\_status==True THEN
            - 3.2.5.1.6.2.1. Display(payment has been done successfully)
          - 3.2.5.1.6.3.ELSE
            - 3.2.5.1.6.3.1. Display(payment has not been done)
          - 3.2.5.1.6.4.ENDIF
        - 3.2.5.1.7. ELSEIF customer\_choice==5
          - 3.2.5.1.7.1.Break
        - 3.2.5.1.8. ELSE
          - 3.2.5.1.8.1.Display(your entry is wrong)
          - 3.2.5.1.8.2.Continue

```
3.2.5.1.9. ENDF
3.2.6. ELSE
3.2.6.1.Continue
3.2.6.2.ENDDO
3.3.ELSEIF choice==2
3.3.1. Display (enter your username)
3.3.2. Get username
3.3.3. Display(enter your password)
3.3.4. Get password
3.3.5. IF login(PAREMETER:username,password,"admin") function THEN
3.3.5.1.DOWHILE True
3.3.5.1.1. Set admin=admin_menu() function
3.3.5.1.2. IF admin_choice==1 THEN
3.3.5.1.2.1.Display (enter the grocery name:)
3.3.5.1.2.2.Get groceries_name
3.3.5.1.2.3.Display (enter the price:)
3.3.5.1.2.4.Get price
3.3.5.1.2.5.Append_groceries(PAREMETER:available_groceries) function
3.3.5.1.3. ELSEIF admin_choice==2
3.3.5.1.3.1.modify_groceries() function
3.3.5.1.4. ELSEIF admin_choice==3
3.3.5.1.5. Read_groceries_file( ) function
3.3.5.1.6. ELSEIF admin_choice==4
3.3.5.1.6.1.all_orders() function
3.3.5.1.7. ELSEIF admin_choice==5
3.3.5.1.7.1.specific_customer_orders() function
3.3.5.1.8. ELSEIF admin_choice==6
3.3.5.1.8.1.delete_product() function
3.3.5.1.9. ELSEIF admin_choice==7
3.3.5.1.9.1.Break
3.3.5.1.10. ELSE
```

```
3.3.5.1.10.1. Display(your entry is wrong)
3.3.5.1.10.2. Continue
3.3.5.1.11. ENDIF
3.3.5.2.ENDDO
3.3.6. ELSE
3.3.6.1.Continue
3.3.7. ENDIF
3.4.ELSEIF choice==3
3.4.1. DOWHILE True
3.4.1.1.Set geust_choice=guest_menu() function
3.4.1.2.IF geust_choice==1 THEN
3.4.1.2.1. read_groceries_file( ) function
3.4.1.3.ELSEIF geust_choice==2
3.4.1.3.1. Display (enter username:)
3.4.1.3.2. Get username
3.4.1.3.3. Display (enter password:)
3.4.1.3.4. Get password
3.4.1.3.5. Display(enter your gender:)
3.4.1.3.6. Get gender
3.4.1.3.7. Display (enter your date of birth:)
3.4.1.3.8. Get date_of_birth
3.4.1.3.9. Display(enter your Email)
3.4.1.3.10. Get Email
3.4.1.3.11. Display(enter your phone number:)
3.4.1.3.12. Get phone_number
3.4.1.3.13. Display(enter your address:)
3.4.1.3.14. Get address
3.4.1.3.15. IF new_account(PAREMETER:username,password,gender,
date_of_birth,Email,phone_number,address) function THEN
3.4.1.3.15.1. Display (Account created)
3.4.1.3.16. ENDIF
```

```
3.4.1.4.ELSEIF geust_choice==3
    3.4.1.4.1. Break
3.4.1.5.ELSE
    3.4.1.5.1. Display(your entry is wrong)
    3.4.1.5.2. Continue
3.4.1.6.ENDIF
3.4.2. ENDDO
3.5.ELSEIF choice==4
    3.5.1. Break
3.6.ELSE
    3.6.1. Display(your entry is wrong)
    3.6.2. Continue
3.7.ENDIF
4. ENDDO
5. END main( ) function
```

## Program source code and explanation

### Login function

```
#this will be the log ing type if you are an admin or a customer.
def login(username, password, log_in_as):
    login_file = ""
    #I have devided log_in_as into to part to define the person if he was a user or an admin
    if log_in_as == 'user':
        try:
            login_file = open('user.txt')
        except:
            print("No such a file")
    elif log_in_as == 'admin':
        #to login as admin these are the details
        #username:admin
        #password:admin
        try:
            login_file = open('admin.txt')
        except:
            print("No such a file")

    file = login_file.readlines()
    login_file.close()
```

```
#this side of the program is to separete the username and the password from each other
#and to check if the username and password the same as in the files
status=True
for userData in file:
    #I used here split function to get the username and the password from the list
    user = userData.split(',')[0]
    pwd = userData.split(',')[1].strip()
    if (user == username) and (pwd == password):
        return True
    else:
        status=False
if status==False:
    print("Username or Password is wrong")
    login_file.close()
#note: the admin account will be made by the programmer, all the information for the admin account can be foun in "admin.txt" file.
```

### New account function

```
#this function will creat a new account for new users.
def new_account(username,password,gender,date_of_birth,Email,phone_number,address):
    data=username+","+password+","+gender+","+date_of_birth+","+Email+","+phone_number+","+address+"\n"
    login_file=open("user.txt","a")
    login_file.write(data) #all the information for the user will be saved into user.txt file.
    login_file.close()
    return True
```

### Groceries file function

```
#this function is for the available groceries and we can add things to it later
def groceries_file():
    groceries=[] #I have declare groceries as a list to save into it

    groceries_file=open("groceries.txt")
    for available in groceries_file.readline():
        available=available.split(",")
        groceries[available[0]]=int(available[1])
    groceries_file.close()
    return groceries
```

### Information file function

```
#this function is to let the user check his information
def information_file(username): #using a parameter here so the user can see his own information
    with open("user.txt","r") as info:
        for i in info.readlines():
            i=i.split(",")
            if (username==i[0]):#if the parameter is the same in the list then all the information will be printed
                customer_information=[]
                count=0
                while count<len(i):
                    customer_information.append(i[count])
                    count=count+1
            print(f'your useaname is:{customer_information[0]}')
            print(f'your password is:{customer_information[1]}')
            print(f'your gender is:{customer_information[2]}')
            print(f'your birthday is:{customer_information[3]}')
            print(f'your Email is:{customer_information[4]}')
            print(f'your phone number is:{customer_information[5]}')
            print(f'your address is:{customer_information[6]}')
```

### Append grocery's function

```
#this function is to add products wich will be used by the admin only.
def append_groceries(groceries_name,price):#groceries_name,price are inputs to append, can be found in the main function
    read_groceries_file()
    file=open("groceries.txt","a")
    file.write(groceries_name+","+str(price)+"\n") #here to add the name and price of grocery into the file
    file.close
    print("this product was added successfully")
```



## Modify groceries

```
#the admin can modify the products that are available in the grocery store
def modify_groceries():
    read_groceries_file() #this function to show the grocery list
    operation_num=input("enter 1 if you want to change the name\enter 2 if you want to change the cost:")
    groceries_num=input("enter the grocery number you want to modify:")
    new_file=""
    if operation_num=="1":
        new_name=input("type the new name:")
        count = 1
        modify_groceries=open("groceries.txt","r")
        for i in modify_groceries:
            if str(count) == groceries_num: #im converting count to string because the variable groceries_num is string too.
                price = (i.split(",")[1]) #I have declared the price here already because I dont want the price to be changed.
                new_file = new_file + (f'{new_name},{price}')
                count=count+1
            print("The task has been done successfully")
        else:
            new_file = new_file + i
            count=count+1
        over_write=open("groceries.txt","w")
        over_write.write(new_file)#im using .write function to overwrite the new changes.
        over_write.close()
        modify_groceries.close()
    elif operation_num=="2":
        status = 0
        while status == 0:
            try:#the new price should be only integer, thats why im using (try)
                new_price=float(input("type the new price:"))
                status = 1 #i have declared status as 1 to get out of the loop
            except:
                print("invalid price")
        count = 1
        modify_groceries=open("groceries.txt","r")
        for i in modify_groceries:
            if str(count) == groceries_num: #im converting count to string because the variable groceries_num is string too.
                name = (i.split(",")[0])#I have declared the name here already because I dont want the name to be changed.
                new_file = new_file + (f'{name},{new_price}\n')
                count=count+1
            print("The task has been done successfully")
        else:
            new_file = new_file + i
            count=count+1
        over_write=open("groceries.txt","w")
        over_write.write(new_file)#im using .write function to overwrite the new changes.
        over_write.close()
        modify_groceries.close()
```

## Show groceries function

```
#this function is for when the groceries are being displayed it will split the products and the cost.
def show_groceries(available_groceries):
    print('{:>12} {:>18}'.format("product name:", "cost:")) #I'm using .format to make a space between the product name and its cost.
    count=1
    for product, cost in available_groceries.items():
        print(f'[{count}] ', end='\t')
        print('{:>12} {:>18}'.format(product, cost))
        count=count+1
```



## View orders function

```
#this function is to let the coustomer dispolay his own order history
#the premeter here so the customer can see his own orders only.
def View_orders(username):
    total=0
    orders_file=open("orders.txt","r")
    for i in orders_file.readlines():
        i=i.split(",")#I used here split to split i to list using (",")
        if username==i[0]:
            print(f'you orderd [ {i[1]} ] for {i[2]} RM')
            #here I have calculate the total of the customer order history cost.
            total=total+int(i[2])
    print(f'the total of your orders [ {total} RM]')
    orders_file.close()
```

## Specific customer orders

```
#this function if for the admin to get the orders of a specific customer.
def specific_customer_orders():
    total=0
    customer_name=input("Enter the customer name:")
    orders_file=open("orders.txt","r")
    for i in orders_file.readlines():
        i=i.split(",")#I used here split to split i to list using (",")
        if customer_name==i[0]:
            print(f'the order for {customer_name} [ {i[1]} ] for {i[2]} RM')
            #here I have calculate the total of the customer order history cost.
            total=total+int(i[2])
    print(f'the total cost of {customer_name} is [ {total} RM]')
    orders_file.close()
```

## Specific grocery function

```
#this function to let the admin to search for specific grocery.
def specific_grocery():
    grocery_name=input("Enter the grocery name:")
    groceries_file=open("groceries.txt","r")
    for i in groceries_file.readlines():
        i=i.split(",")
        if grocery_name==i[0]:
            print('\t')
            #here the grocery name and its cot will be shown
            print(f'grocery name is:{i[0]}')
            print(f'the grocery cost is:{i[1]}')
    groceries_file.close()
```

## Delete products function

```
#this function will allow the admin to delete products.
def delete_product():
    repeat=1
    while repeat==1:
        new_file=""
        read_groceries_file()
        groceries_number=input("enter the grocery's number:")
        product_file=open("groceries.txt","r")
        count=1
        status=False
        for i in product_file.readlines():
            if str(count)!=groceries_number:
                #if the the grocery number is equal to the the count, this line will not be saved in (new_file)
                new_file=new_file+i
                count=count+1
            else:
                print("the product was deleted")
                status=True
                count=count+1
        if status==False:
            print("your entry is wrong")
        product_file.close()
        over_write_product=open("groceries.txt","w")
        over_write_product.write(new_file)
        #here everything saved in (new_file) will be overwrite into groceries.txt file.
        over_write_product.close()

        if input(f"Enter 1 to continue\n Enter 2 to exit:")=="2":
            return True
```

## All orders function

```
#this fuction will show all the orders that have been made
def all_orders():
    all_orders_file=open("orders.txt","r")
    for i in all_orders_file.readlines():
        i=i.split(",") #I used here split to split i to list using (",")
        print(f'the customer {i[0]} ordered {i[1]}')
    all_orders_file.close()
```

## Login type function

```
#this function will show the sign in type
def login_type():
    print("""
    Main Page
    """)
    print("Please enter one number of the next operation you want \n")
    print('')
    print("Enter 1 to login to an existing account")
    print("Enter 2 to login as an admin")
    print("Enter 3 to continue as a guest")
    print("Enter 4 to exit")
    print('')
    try: #the input should be only an integer.
        choice = int(input("Enter the number:"))
        return choice
    except:
        print("please type numbers only")
```

## Guest function

```
#this function is for the guest, where the guest can display all the products, and make a new account.
def guest_menu():
    print("""
    Guest Menu
    """)
    print("Please enter one number of the next operation you want")
    print('')
    print("Enter 1 to view Groceries detail")
    print("Enter 2 to create an account")
    print("Enter 3 to Exit")
    print('')
    try: #the input should be only an integer.
        choice = int(input("Enter the number:"))
        return choice
    except:
        print("please type numbers only")
```

## Admin function

```
#this function for the admin, all the advanced options the admin can do it here
def admin_menu():
    print("""
    /-----\
    |Admin Panel|
    \-----/
    \n""")
    print("choose one number of the operation you want:")
    print("""
    Enter 1 to upload Groceries detail in system
    Enter 2 to update/modify Groceries
    Enter 3 to view all uploaded Groceries
    Enter 4 to view all orders of customers
    Enter 5 to search order of specific customer
    Enter 6 to delete Groceries information
    Enter 7 to search a specific grocery
    Enter 8 to go back to the Main Page""")
    try: #the input should be only an integer.
        choice = int(input("Enter the number:"))
        return choice
    except:
        print("please type numbers only")
```

## Customer function

```
#this function is for the user options
def customer_menu():
    print("""
    /-----\
    |Customer Panel|
    \-----/
    """)
    print("""
    Enter 1 to view own order
    Enter 2 to View all Groceries
    Enter 3 to view personal information
    Enter 4 to Place order of Groceries
    Enter 5 to Exit""")
    try: #the input should be only an integer.
        choice = int(input("Enter the number:"))
        return choice
    except:
        print("please type numbers only")
```

### Welcome function

```
def welcome():  
    print("""  
Welcome to FRESH@ Sdn Bhd  
Groceries  
""")
```

### Main function

```
#this will be the main function where all the previous functions will be excuted.  
def main():  
    welcome()  
    while True: #this function will be none stop until the user asks to break it  
        choice=login_type()  
        if choice==1: #this choice is for the user  
            username=input("Enter your username:")  
            password=input("enter your password:")  
            if login(username,password,"user"):  
                while True:  
                    customer_choice=customer_menu()  
                    if customer_choice==1:  
                        View_orders(username)  
                    elif customer_choice==2:  
                        read_groceries_file()  
                    elif customer_choice==3:  
                        information_file(username)  
                    elif customer_choice==4:  
                        order_status=order(username)  
                        if order_status==True:  
                            print("payment has been done successfully")  
                        else:  
                            print("payment has not been done")  
                    elif customer_choice==5:  
                        break  
                    else:  
                        print("your entry is wrong")  
                        continue  
            else:  
                continue
```

```

elif choice==2:#this choice is for the admin
    username=input("Enter your username:")
    password=input("enter your password:")
    if login(username,password,"admin"):
        while True:
            admin_choice=admin_menu()
            if admin_choice==1:
                groceries_name=input("enter the grocery name:")
                price=float(input("enter the price:"))
                append_groceries(groceries_name,price)
            elif admin_choice==2:
                modify_groceries()
            elif admin_choice==3:
                read_groceries_file()
            elif admin_choice==4:
                all_orders()
            elif admin_choice==5:
                specific_customer_orders()
            elif admin_choice==6:
                delete_product()
            elif admin_choice==7:
                specific_grocery()
            elif admin_choice==8:
                break
            else:
                print("your entry is wrong")
                continue
        else:
            continue

```

```

elif choice==3:#this choice is for the guest
    while True:
        geust_choice=guest_menu()
        if geust_choice==1:
            read_groceries_file()
        elif geust_choice==2:
            username = input('Enter Username: ')
            password = input('Enter Password: ')
            gender=input("Enter your gender:")
            date_of_birth=input("Enter your date of birth:")
            Email=input("Enter your Email:")
            phone_number=input("Enter your Phone number:")
            address=input("Enter your address:")
            if new_account(username,password,gender,date_of_birth,Email,phone_number,address):
                print('Account Created')
        elif geust_choice==3:
            break
        else:
            print("your entry is wrong")
            continue

```

```

elif choice==4:#this choice to exit the program
    break

else:#anything ealse will display that
    print("your entry is wrong")
    continue

```



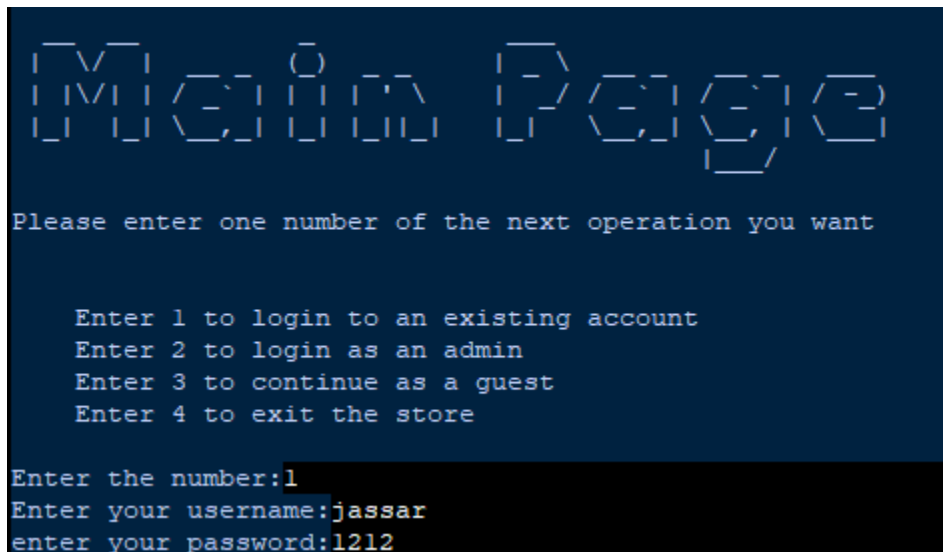
## sample input/output

### Main Page



This is the first page the user or the admin will see when they enter the grocery store, they will be asked to enter a number upon their needs.

### Customer login



If it was a customer, the customer will enter number 1 to enter the login page, there will be asked to enter the username and the password. if the password or the username is wrong the system will not let this user enter.

### Customer page

```

[ E n t e r n e r D e p t e d ]

Enter 1 to view own order
Enter 2 to View all Groceries
Enter 3 to view personal information
Enter 4 to Place order of Groceries
Enter 5 to go back to the Main Page
Enter the number:|

```

After the customer enters the username and password correctly this page we be displayed, and from here all the functions for the customer will be available, the customer will be able to view his own orders, view all the groceries, view personal information, place a new order, or to go back to the main page.

#### view own order

```

Enter the number:1
you orderd [ nutella ] for 33
RM
you orderd [ rice ] for 30
RM
you orderd [ suger ] for 11
RM
you orderd [ nutella ] for 33
RM
the total of your orders [ 107 RM]

```

If the customer chose 1, the customer will be able to see his order history and how much in total he has paid.

#### view all groceries

```

Enter the number:2
product name:      cost:
[ 1 ]      nutella      33
[ 2 ]      suger       11
[ 3 ]      rice        30
[ 4 ]      7up         3
[ 5 ]      bread       3

```

When the customer enters 2, all the groceries that are available in the store will be shown with the numbering and cost for each product.

### View personal information

```
Enter the number:3
your useaname is:jassar
your password is:1212
your gender is:male
your birthday is:25/8/2002
your Email is:jassar.official@gmail.com
your phone number is:+60197665523
your address is:East Lake
```

The third choice is to show all the details about the customer that are stored in the users' file, everything that the user entered when he created the account for the first time will be shown here.

### Place an order of groceries

```
Enter the number:4
product name:          cost:
[ 1 ]      nutella      33
[ 2 ]      suger        11
[ 3 ]      rice         30
[ 4 ]      7up           3
[ 5 ]      bread         3
enter the grocery's number:
```

And the last function the customer can do is to place a new order, when the customer enters 4 the groceries will be shown so the customer can choose the product he wants.

```
product name:          cost:
[ 1 ]      nutella      33
[ 2 ]      suger        11
[ 3 ]      rice         30
[ 4 ]      7up           3
[ 5 ]      bread         3
enter the grocery's number:4
[your order is:7up] for [3
Ringgit]

enter 1 if you want to continue
enter 2 if you want to proceed to payment:
```

When the customer chooses an item two operations will be shown, one is to continue and add more items, and the second option is to proceed to payment.

```
the total of your orders 47 RM(the payment method is in Cash only)
Do you want to proceed?
Enter 1 to proceed
Enter2 to cancel payment
```

After the customer finishes ordering and wants to proceed to payment, the total of his orders will be shown, either to make the payment or to cancel and go back to the customer portal. The payment method is in cash only.

```
Enter 1 to proceed
Enter2 to cancel payment1
payment has been done successfully
```

If the customer wants to continue with the payment this message will appear that the payment has been done successfully and will be back to the customer portal.

**Exit the customer portal**

```

Grocery Portal

Enter 1 to view own order
Enter 2 to View all Groceries
Enter 3 to view personal information
Enter 4 to Place order of Groceries
Enter 5 to go back to the Main Page
Enter the number:5

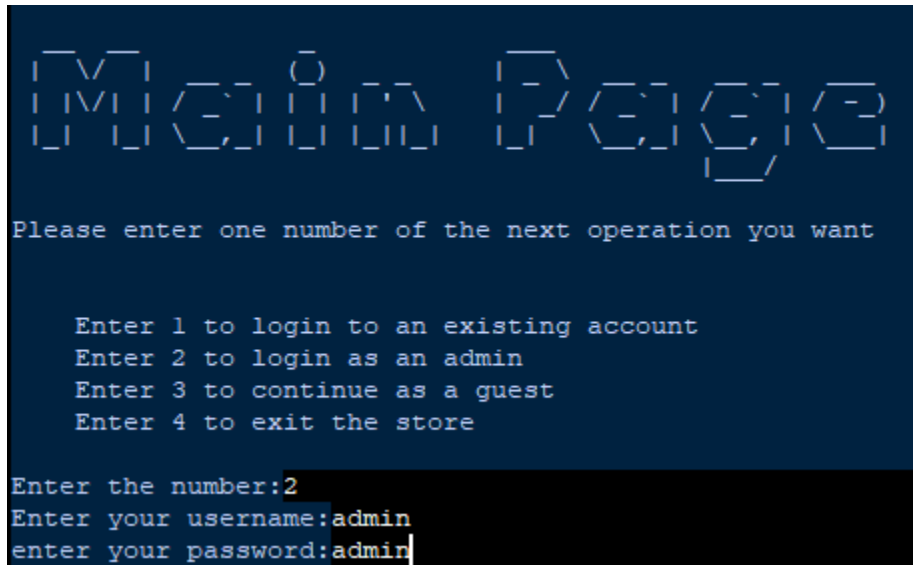
Main Page

Please enter one number of the next operation you want

Enter 1 to login to an existing account
Enter 2 to login as an admin
Enter 3 to continue as a guest
Enter 4 to exit the store
Enter the number:|
```

To exit the customer page and go back to the main page the customer should enter number 5.

## Admin Login



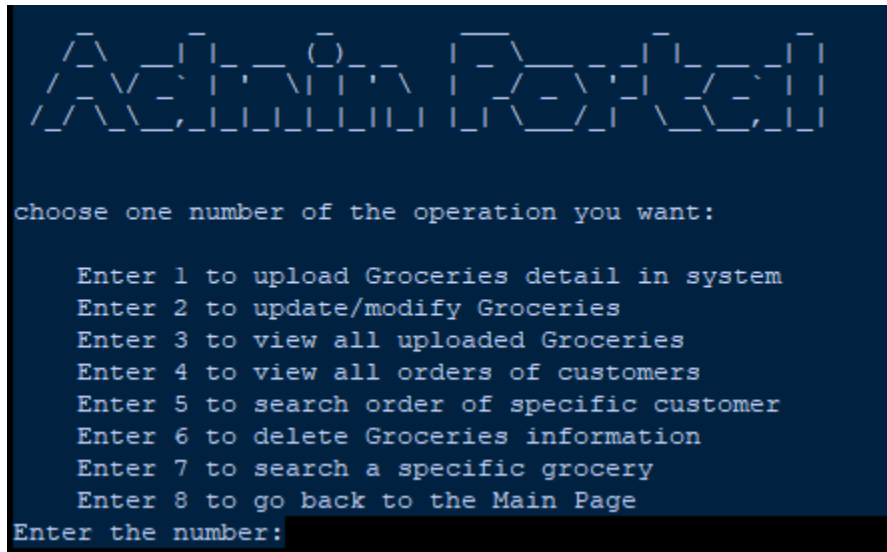
```
Admin Login
Please enter one number of the next operation you want

Enter 1 to login to an existing account
Enter 2 to login as an admin
Enter 3 to continue as a guest
Enter 4 to exit the store

Enter the number:2
Enter your username:admin
enter your password:admin
```

If it was an admin who wants to log in, he will choose the second option, after that he will be asked for his username and password, which is admin, admin. Other than that, the system will not give access to enter the admin portal.

## Admin Page



When the admin enters, he will be able to use a number of functions like uploading a new grocery, modifying a grocery, viewing all uploaded groceries, viewing all orders of customers, viewing a specific customer order, deleting a grocery, and finally exiting the admin portal.

### Upload a grocery

```
enter the grocery name:cheese
enter the price:9
this product was added successfully
```

As shown if the admin chooses to upload a grocery, he will be asked to enter the grocery name and its price, after that the grocery will be stored in the groceries file.

### Modify a grocery

```
product name:          cost:
[ 1 ]      nutella      33
[ 2 ]      suger        11
[ 3 ]      rice         30
[ 4 ]      7up           3
[ 5 ]      bread         3
[ 6 ]      cheese        9
enter 1 if you want to change the name
enter 2 if you want to change the cost:
```

If the admin wants to modify a grocery he can enter number 2, the groceries menu will be shown and the admin can choose to modify the name of the price of a grocery.

```
product name:          cost:
[ 1 ]      nutella      33
[ 2 ]      suger        11
[ 3 ]      rice         30
[ 4 ]      7up           3
[ 5 ]      bread         3
[ 6 ]      cheese        9
enter 1 if you want to change the name
enter 2 if you want to change the cost:1
enter the grocery number you want to modify:6
type the new name:kinder
The task has been done successfully
```

If the admin chose to change the name, he will be asked to choose the grocery number, after that he can modify the name.



```
product name:          cost:
[ 1 ]      nutella      33
[ 2 ]      suger        11
[ 3 ]      rice         30
[ 4 ]      7up          3
[ 5 ]      bread        3
[ 6 ]      kinder       9
enter 1 if you want to change the name
enter 2 if you want to change the cost:2
enter the grocery number you want to modify:6
type the new price:2
The task has been done successfully
```

And if the admin wants to change the price, he will be asked to enter number 2 to change the price, then the grocery number, and finally he can change the price of the grocery.

### View all groceris

```
product name:          cost:
[ 1 ]      suger        11
[ 2 ]      rice         30
[ 3 ]      7up          3
[ 4 ]      bread        3
[ 5 ]      kinder       3
[ 6 ]      cheese       9
```

If the admin enters 3 all the groceries that are available will be displayed.

### View all customers orders

```
the customer jassar ordered nutella
the customer jassar ordered rice
the customer jassar ordered suger
the customer jassar ordered nutella
the customer jassar ordered 7up
the customer jassar ordered nutella
the customer jassar ordered suger
the customer jassar ordered nutella
the customer jassar ordered suger
the customer sara ordered cheese
the customer sara ordered rice
the customer sara ordered rice
```

The forth option is to display all the orders that have been done by all the customers.

### View a specific customer order

```
Enter the customer name:sara
the order for sara [ cheese ] for 9
RM
the order for sara [ rice ] for 30
RM
the order for sara [ rice ] for 30
RM
the total cost of sara is [ 69 RM]
```

The faith choice is to display a specific customer order and the admin can also see the total cost of customer orders.

**Delete a grocery**

```
product name:      cost:
[ 1 ]   suger      11
[ 2 ]   rice       30
[ 3 ]   7up        3
[ 4 ]   bread       3
[ 5 ]   kinder      3
[ 6 ]   cheese     9
enter the grocery's number:6
the product was deleted
Enter 1 to continue
Enter 2 to exit:
```

This function is to delete a grocery, after choosing the grocery number the admin can either continue deleting or to exit this function.

**search a specific grocery**

```
Enter the grocery name:rice
grocery name is:rice
the grocery cost is:30
```

the seventh function is to search for a specific grocery, in that case after entering the grocery name its details will be shown.



**View all groceries**

```
Enter the number:1

product name:      cost:
[ 1 ]   suger      11
[ 2 ]   rice        30
[ 3 ]   7up         3
[ 4 ]   bread       3
[ 5 ]   kinder      3
```

The first option is to display the menu.

**Create an account**

```
Enter Username: dana
Enter Password: 123
Enter your gender:female
Enter your date of birth:11/12/1013
Enter your Email:dana@gmail.com
Enter your Phone number:+966530230533
Enter your address:Jeddah
Account Created
```

And the second option is to create a new account, here the user will be asked to fill all the needed information, after that this user can log in as a customer.

**Exit the guest portal**

```

  _ _ _ _ _
 / _ _ _ \
( _ _ _ )
 \ _ _ _ /
  _ _ _ _ _

Please enter one number of the next operation you want

Enter 1 to view Groceries detail
Enter 2 to create an account
Enter 3 to go back to the Main Page

Enter the number:3

  _ _ _ _ _
 / _ _ _ \
( _ _ _ )
 \ _ _ _ /
  _ _ _ _ _

Please enter one number of the next operation you want

Enter 1 to login to an existing account
Enter 2 to login as an admin
Enter 3 to continue as a guest
Enter 4 to exit the store

Enter the number:
```

The last function in guest menu is to go back to the main page.

### Exit the store

```

Enter 1 to login to an existing account
Enter 2 to login as an admin
Enter 3 to continue as a guest
Enter 4 to exit the store

Enter the number:4
>>>
```

And lastly is the to exit the store by entering number 4.

## Conclusion

In conclude, this program was for FRESHCO Sdn Bhd company, they haired me as a programmer to build a program for their new grocery store, I have used Python as the program language.

I have fulfilled everything that was required from me as a programmer, to bullied a program contains conditional statement as IF ELSEIF EELSE, and irritation to keep the program working as long as the user wants too, the loop will be working until the user BREAK it, and to extract the contents from the text files as list, for that I have used SPLIT function to get the content I want and I was using (,) to Split between the contents. All the program was divided into functions, each function will do a specific order that it's programed to do, and the last function which is the main function where all the functions have been executed there

When I was programming, I ran across a number of problems and errors, which prompted me to look for and read up on potential solutions, which ultimately assisted me in improving my skill in the Python programming language.

## References

Denisewitsch, V. (2021, January 31). *8 Major Advantages of Online Grocery Shopping*. Retrieved from Food Runner: <https://foodrunner.ca/blog/8-major-advantages-of-online-grocery-shopping>