```
#Importing my file named cafeclass to able to use the private class.
import cafeclass
cafe_tbs = cafeclass cafe

#A list that contains all the tables that are available.
CafeTB_list =  1 "1. Table 1"  2 "2. Table 2"  3 "3. Table 3"  4 "4. Table 4"
5 "5. Table 5"  6 "6. Table 6"
#Lists that contains all the waiters
waiter_Sarah =
TBkeys_Sarah =
waiter_Thabang =
TBkeys_Thabang =
waiter_Lucy =
TBkeys_Lucy =
waiter_Pieter =
TBkeys_Pieter =
waiter_Motseki =
TBkeys_Motseki =
waiter_Sharon =
TBkeys_Sharon =
#A list to add the amount of customers to each table.
tableCS_list =  cafe_tbs customers  cafe_tbs customers  cafe_tbs customers
cafe_tbs customers  cafe_tbs customers  cafe_tbs customers
#A list that contains the total prices for each table.
Totalprice =  cafe_tbs orders  cafe_tbs orders  cafe_tbs orders  cafe_tbs orders
cafe_tbs orders  cafe_tbs orders
#A list that shows if the tables prepared a bill.
table_bill =  cafe_tbs bill  cafe_tbs bill  cafe_tbs bill  cafe_tbs bill
cafe_tbs bill  cafe_tbs bill
#A list that contains each item that was ordered by the tables.
table_items =  "None"  "None"  "None"  "None"  "None"  "None"
#A list that contains quantities for the items that was ordered by the tables.
table_quantity =  0  0  0  0  0  0
#A list that contains prices for the items that was ordered by the tables.
table_price =  0  0  0  0  0  0
#A list that contains the items from the menu.
order_items =  'Coke'  'Fanta'  'Sprite'  'Garlic Snails'  'Calamari'  'Wings'
'Steak'  'Chicken'  'Pork'  'Ice-cream'  'Waffle'  'Cake'
#A list that contains the prices from the menu.
order_price =  25  25  25  55  70  65  120  109  110  56  73  45
#Lists used for the save bill in txt file
Bill_item =
Bill_quantity =
Bill_price =
Main_bill =
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#Defining a function/creating a function that display the start menu/main menu of
the application.
def main_menu
   print "\033[32m" + "What would you like to do today?"+
"\033[0m""\n\n""\033[36m" + "1. Assign Table" +"\033[0m""\n""\033[36m" + "2.
Change customres" + "\033[0m""\n""\033[36m" + "3. Add to Order" +
"\033[0m""\n""\033[36m" + "4. Prepare bill" + "\033[0m""\n""\033[36m" + "5.
Complete Sale" + "\033[0m""\n""\033[36m" + "6. Cashup" + "\033[0m""\n""\033[31m"
+ "0. Log Out"+ "\033[0m"
#Defining a function/creating a function that display the order menu of the
application.
def order_menu
    NM_order = 0
    print "Select an item from the list to add to order\n"
    with open 'Stock.txt' 'r'  as file
        for line in file
            NM_order += 1
            item = line split ','  0
            price =  line split ','  1    -1
            print f"{NM_order}. {item} R{price}"
#Defining a function/creating a function that will be the main code for the
application to be able to run.
def main_code
    Totale_sale = 0
    while True
        #Checking the login for the application.
        login_choice = input "\033[35m" + "Welcome to Highlands Cafe" +
"\033[0m""\n""\033[32m" + "1. Login" + "\033[0m""\n""\033[31m" + "2. Exit"+
"\033[0m""\n"
        if login_choice == "1"
            print "User login\n"
            while True
                waiter_username = input "Please enter username: "
                with open 'Login.txt' 'r'  as file
                    for line in file
                        w_username = line split ','  0
                        if w_username == waiter_username
                            valid = True
                            w_password =  line split ','  1    -1
                            waiter_password = input "Please enter password: "
                            if waiter_password == w_password
                                valid = True
                                file close
                                break
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                            else
                                valid = False
                                file close
                                print "Invalid username or password, try again!"
                                print " "
                                break
                        else
                            valid = False
                if valid == True
                    while True
                        print "\033[34m" + f"\nWelcome {waiter_username}" +
"\033[0m"
                        main_menu
                        #Defining a function/creating a function that display the
tables assign to the waiters.
                        def display_wtTB
                            if waiter_username == "Sarah"
                                    for i in range len waiter_Sarah
                                        print waiter_Sarah i
                            elif waiter_username == "Thabang"
                                    for i in range len waiter_Thabang
                                        print waiter_Thabang i
                            elif waiter_username == "Lucy"
                                    for i in range len waiter_Lucy
                                        print waiter_Lucy i
                            elif waiter_username == "Pieter"
                                    for i in range len waiter_Pieter
                                        print waiter_Pieter i
                            elif waiter_username == "Motseki"
                                    for i in range len waiter_Motseki
                                        print waiter_Motseki i
                            elif waiter_username == "Sharon"
                                    for i in range len waiter_Sharon
                                        print waiter_Sharon i

                        #When the waiter input 1 to select/assign to a table.
                        waiter_choice = input ""
                        if waiter_choice == "1"
                            while True
                                print " "
                                print "Please select one of the available tables
or press 0 to exit"
                                print " "
                                for i in CafeTB_list values
                                    print i
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                                try
                                    table_option = int input ""
                                except ValueError
                                    print "Invalid input, try agian!"
                                    break
                                if table_option == 0
                                    break
                                elif table_option > 0 and table_option <= 6
                                    if waiter_username == "Sarah"
                                        table_NM1 = CafeTB_list pop table_option
                                        waiter_Sarah append table_NM1
                                        TBkeys_Sarah append table_option
                                        print f"Table {table_option} successfully
assigned to {waiter_username}."
                                        add_cst = input "Do you want to add
customers to the table? y/n: "  lower
                                        if add_cst == "y"
                                            for i in range len waiter_Sarah
                                                print waiter_Sarah i
                                            select_tbl = int input "Select table
to assign customers or 0 to exit: "
                                            if select_tbl == 0
                                                break
                                            amount_cst = int input "How many
customers are seated at the table?: "
                                            tableCS_list select_tbl-1  =
amount_cst
                                            break
                                        elif add_cst == "n"
                                            break
                                        else
                                            print "Invalid input! Try agian."
                                            print " "
                                    elif waiter_username == "Thabang"
                                        table_NM2 = CafeTB_list pop table_option
                                        waiter_Thabang append table_NM2
                                        TBkeys_Thabang append table_option
                                        print f"Table {table_option} successfully
assigned to {waiter_username}."
                                        add_cst = input "Do you want to add
customers to the table? y/n: "  lower
                                        if add_cst == "y"
                                            for i in range len waiter_Thabang
                                                print waiter_Thabang i
```

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                    select_tbl = int input "Select table
to assign customers or 0 to exit: "
                    if select_tbl == 0
                        break
                    amount_cst = int input "How many
customers are seated at the table?: "
                    tableCS_list select_tbl-1  =
amount_cst
                    break
                elif add_cst == "n"
                    break
                else
                    print "Invalid input! Try agian."
                    print " "
            elif waiter_username == "Lucy"
                table_NM3 = CafeTB_list pop table_option
                waiter_Lucy append table_NM3
                TBkeys_Lucy append table_option
                print f"Table {table_option} successfully
assigned to {waiter_username}."
                add_cst = input "Do you want to add
customers to the table? y/n: "  lower
                if add_cst == "y"
                    for i in range len waiter_Lucy
                        print waiter_Lucy i
                    select_tbl = int input "Select table
to assign customers or 0 to exit: "
                    if select_tbl == 0
                        break
                    amount_cst = int input "How many
customers are seated at the table?: "
                    tableCS_list select_tbl-1  =
amount_cst
                    break
                elif add_cst == "n"
                    break
                else
                    print "Invalid input! Try agian."
                    print " "
            elif waiter_username == "Pieter"
                table_NM4 = CafeTB_list pop table_option
                waiter_Pieter append table_NM4
                TBkeys_Pieter append table_option
                print f"Table {table_option} successfully
assigned to {waiter_username}."
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                                    add_cst = input "Do you want to add
customers to the table? y/n: "  lower
                                    if add_cst == "y"
                                        for i in range len waiter_Pieter
                                            print waiter_Pieter i
                                        select_tbl = int input "Select table
to assign customers or 0 to exit: "
                                        if select_tbl == 0
                                            break
                                        amount_cst = int input "How many
customers are seated at the table?: "
                                        tableCS_list select_tbl-1  =
amount_cst
                                        break
                                    elif add_cst == "n"
                                        break
                                    else
                                        print "Invalid input! Try agian."
                                        print " "
                                elif waiter_username == "Motseki"
                                    table_NM5 = CafeTB_list pop table_option
                                    waiter_Motseki append table_NM5
                                    TBkeys_Motseki append table_option
                                    print f"Table {table_option} successfully
assigned to {waiter_username}."
                                    add_cst = input "Do you want to add
customers to the table? y/n: "  lower
                                    if add_cst == "y"
                                        for i in range len waiter_Motseki
                                            print waiter_Motseki i
                                        select_tbl = int input "Select table
to assign customers or 0 to exit: "
                                        if select_tbl == 0
                                            break
                                        amount_cst = int input "How many
customers are seated at the table?: "
                                        tableCS_list select_tbl-1  =
amount_cst
                                        break
                                    elif add_cst == "n"
                                        break
                                    else
                                        print "Invalid input! Try agian."
                                        print " "
                                elif waiter_username == "Sharon"
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                                    table_NM6 = CafeTB_list pop table_option
                                    waiter_Sharon append table_NM6
                                    TBkeys_Sharon append table_option
                                    print f"Table {table_option} successfully
assigned to {waiter_username}."

                                    add_cst = input "Do you want to add
customers to the table? y/n: "  lower
                                    if add_cst == "y"
                                        for i in range len waiter_Sharon
                                            print waiter_Sharon i
                                        select_tbl = int input "Select table
to assign customers or 0 to exit: "

                                        if select_tbl == 0
                                            break
                                        amount_cst = int input "How many
customers are seated at the table?: "

                                        tableCS_list select_tbl-1  =
amount_cst

                                        break
                                    elif add_cst == "n"
                                        break
                                    else
                                        print "Invalid input! Try agian."
                                        print " "
                                else
                                    print "Invalid input, try again!"
                                    break

                            #When the waiter input 2 to add customers to the tables.
                            elif waiter_choice == "2"
                                while True
                                    print " "
                                    if waiter_username == "Sarah"
                                        for i in range len waiter_Sarah
                                            print waiter_Sarah i
                                    elif waiter_username == "Thabang"
                                        for i in range len waiter_Thabang
                                            print waiter_Thabang i
                                    elif waiter_username == "Lucy"
                                        for i in range len waiter_Lucy
                                            print waiter_Lucy i
                                    elif waiter_username == "Pieter"
                                        for i in range len waiter_Pieter
                                            print waiter_Pieter i
                                    elif waiter_username == "Motseki"
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                                    for i in range len waiter_Motseki
                                        print waiter_Motseki i
                                elif waiter_username == "Sharon"
                                    for i in range len waiter_Sharon
                                        print waiter_Sharon i
                                try
                                    select_tbl = int input "Select table to
assign customers or 0 to exit: "
                                except ValueError
                                    print "Invalid input, try agian!"
                                    break
                                if select_tbl == 0
                                    break
                                elif select_tbl > 0 and select_tbl <= 6
                                    try
                                        amount_cst = int input "How many
customers are seated at the table?: "
                                    except ValueError
                                        input "Invalid input, try again!"
                                        break
                                    tableCS_list select_tbl-1  = amount_cst
                                    break
                                else
                                    print "Invalid input ,try again!"
                                    break

                            #When the waiter input 3 to add a order.
                            elif waiter_choice == "3"
                                while True
                                    print "Select a table to add orders to:\n"
                                    display_wtTB
                                    try
                                        select_tbl = int input "Please select a table
or 0 to exit: "
                                    except ValueError
                                        input "Invalid input, try again!"
                                        break
                                    if select_tbl == 0
                                            break
                                    elif select_tbl > 0 and select_tbl <= 6
                                        while True
                                            order_menu
                                            try
                                                waiter_ord = int input "Choose item
to add: "
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                                        amount_ord = int input "How many
items do you want to add?: "
                                    except ValueError
                                        print "Invalid input, try agian!"
                                        break
                                    item_price = order_price waiter_ord-1
                                    total_order = amount_ord * item_price
                                    Totalprice select_tbl-1  += total_order
                                    Totale_sale += total_order
                                    cafe_tbs items = order_items waiter_ord-
1
                                    table_items select_tbl-1  =
cafe_tbs items
                                    cafe_tbs quantity = amount_ord
                                    table_quantity select_tbl-1  =
cafe_tbs quantity
                                    cafe_tbs price = total_order
                                    table_price select_tbl-1  =
cafe_tbs price
                                    add_order = input "Add another item? y/n:
"  lower
                                    if add_order == "n"
                                        break
                                if add_order == "n"
                                        break
                            else
                                print "Invalid input ,try again!"
                                break

                        #When the waiter input 4 to prepare the bill.
                        elif waiter_choice == "4"
                            item = "Item"
                            quantity = "Quantity"
                            price = "Price"
                            while True
                                print "Please select a table:\n"
                                display_wtTB
                                try
                                    select_tbl = int input "Please select a table
or 0 to exit: "
                                except ValueError
                                    print "Invalid input ,try again!"
                                    break
                                if select_tbl == 0
                                    break
```

```
                                elif select_tbl > 0 and select_tbl <= 6
                                    if table_items select_tbl-1  == "None"
                                        print "You need to order first, to be
able to print the bill."
                                        break
                                    else
                                        print f"----------------------------------
----------------------------------\nThe bill for table {select_tbl}"
                                        print f"{item:>20}
{quantity:>20}\t\t{price:>10}"
                                        print " "
                                        for i in
range len table_items select_tbl-1
                                            print f"{table_items select_tbl-
1  i :>20} {table_quantity select_tbl-1  i :>20}\t\tR{table_price select_tbl-
1  i :>9}"

Bill_item append table_items select_tbl-1  i

Bill_quantity append table_quantity select_tbl-1  i

Bill_price append table_price select_tbl-1  i
                                        print f"The total of your order was R
{Totalprice select_tbl-1 }\n\nYou were helped by {waiter_username}\n\n----------
----------------------------------------------------"
                                        table_bill select_tbl-1  = "Bill"
                                        Main_bill append Bill_item
                                        Main_bill append Bill_quantity
                                        Main_bill append Bill_price
                                        break
                                else
                                    print "Invalid input ,try again!"
                                    break

                            #When the waiter input 5 to complete the sale.
                            elif waiter_choice == "5"
                                while True
                                    print "Please select a table:\n"
                                    display_wtTB
                                    try
                                        select_tbl = int input "Please select a table
or 0 to exit: "
                                    except ValueError
                                        print "Invalid input ,try again!"
                                        break
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```
                                if select_tbl == 0
                                        break
                                elif select_tbl > 0 and select_tbl <= 6
                                    if table_bill select_tbl-1  == "None"
                                        print "Please prepare bill before
completing sale."
                                        print " "
                                        break
                                    else
                                        bill_file = input "Enter a filename: "  +
".txt"
                                        file = open bill_file '+w'
                                        file write str Main_bill
                                        file close
                                        print " "
                                        if waiter_username == "Sarah"
                                            table_index =
TBkeys_Sarah index select_tbl
                                            clear_table =
waiter_Sarah pop table_index
                                            clear_key =
TBkeys_Sarah pop table_index
                                            CafeTB_list clear_key  = clear_table
                                            Totalprice select_tbl-1  = 0
                                            table_bill select_tbl-1  = "None"
                                            table_items select_tbl-1  = "None"
                                            table_quantity select_tbl-1  = 0
                                            table_price select_tbl-1  = 0

                                        elif waiter_username == "Thabang"
                                            table_index =
TBkeys_Thabang index select_tbl
                                            clear_table =
waiter_Thabang pop table_index
                                            clear_key =
TBkeys_Thabang pop table_index
                                            CafeTB_list clear_key  = clear_table
                                            Totalprice select_tbl-1  = 0
                                            table_bill select_tbl-1  = "None"
                                            table_items select_tbl-1  = "None"
                                            table_quantity select_tbl-1  = 0
                                            table_price select_tbl-1  = 0

                                        elif waiter_username == "Lucy"
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                                        table_index =
TBkeys_Lucy index select_tbl
                                        clear_table =
waiter_Lucy pop table_index
                                        clear_key =
TBkeys_Lucy pop table_index
                                        CafeTB_list clear_key  = clear_table
                                        Totalprice select_tbl-1  = 0
                                        table_bill select_tbl-1  = "None"
                                        table_items select_tbl-1  = "None"
                                        table_quantity select_tbl-1  = 0
                                        table_price select_tbl-1  = 0

                                    elif waiter_username == "Pieter"
                                        table_index =
TBkeys_Pieter index select_tbl
                                        clear_table =
waiter_Pieter pop table_index
                                        clear_key =
TBkeys_Pieter pop table_index
                                        CafeTB_list clear_key  = clear_table
                                        Totalprice select_tbl-1  = 0
                                        table_bill select_tbl-1  = "None"
                                        table_items select_tbl-1  = "None"
                                        table_quantity select_tbl-1  = 0
                                        table_price select_tbl-1  = 0

                                    elif waiter_username == "Motseki"
                                        table_index =
TBkeys_Motseki index select_tbl
                                        clear_table =
waiter_Motseki pop table_index
                                        clear_key =
TBkeys_Motseki pop table_index
                                        CafeTB_list clear_key  = clear_table
                                        Totalprice select_tbl-1  = 0
                                        table_bill select_tbl-1  = "None"
                                        table_items select_tbl-1  = "None"
                                        table_quantity select_tbl-1  = 0
                                        table_price select_tbl-1  = 0

                                    elif waiter_username == "Sharon"
                                        table_index =
TBkeys_Sharon index select_tbl
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                                        clear_table =
waiter_Sharon pop table_index
                                        clear_key =
TBkeys_Sharon pop table_index
                                        CafeTB_list clear_key  = clear_table
                                        Totalprice select_tbl-1  = 0
                                        table_bill select_tbl-1  = "None"
                                        table_items select_tbl-1  = "None"
                                        table_quantity select_tbl-1  = 0
                                        table_price select_tbl-1  = 0
                                    break
                                else
                                    print "Invalid input ,try again!"
                                    break

                            #When the waiter input 6 to cashup.
                            elif waiter_choice == "6"
                                print f"Today we made R {Totale_sale}\n"
                                clear_total = input "Do you wish to clear the daily
total? y/n: "  lower
                                if clear_total == "y"
                                    Totale_sale = 0

                            #When the waiter input 0 to logout.
                            elif waiter_choice == "0"
                                print " "
                                break
                            else
                                print "Invalid input, try again!"
                        if waiter_choice == "0"
                            break
                    elif valid == False
                        break
            #When the waiter input 2 to exit the application.
            elif login_choice == "2"
                print "\033[33m" + "Good bye." + "\033[0m"
                break
            else
                print "Invalid input, try again!"
                print " "
#Calling the main_Code function.
main_code
```

```
#Creating a private class.
class cafe
    def __init__ self
        # Private varibales or properties.
        self __customers = 0
        self __orders = 0
        self __items =
        self __quantity =
        self __price =
        self __bill = "None"

    #Getter method to get the property using an object.
    @property
    def customers self
        return self __customers

    #Setter method to change the value shop_Name using an object.
    @customers.setter
    def customers self  amt_cst
        self __customers = amt_cst

    #Getter method to get the property using an object.
    @property
    def orders self
        return self __orders

    #Setter method to change the value shop_Name using an object.
    @orders.setter
    def orders self  amt_ord
        self __orders = amt_ord

    #Getter method to get the property using an object.
    @property
    def tableNum self
        return self __tableNum

    #Setter method to change the value shop_Name using an object.
    @tableNum.setter
    def tableNum self  table_Num
        self __tableNum = table_Num

    @property
    def items self
        return self __items
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#Setter method to change the value shop_Name using an object.
@items.setter
def items self  ord_item
        self __items append ord_item

@property
def quantity self
    return self __quantity

#Setter method to change the value shop_Name using an object.
@quantity.setter
def quantity self  ord_qt
    self __quantity append ord_qt

@property
def price self
    return self __price

#Setter method to change the value shop_Name using an object.
@price.setter
def price self  ord_pr
    self __price append ord_pr

#Getter method to get the property using an object.
@property
def bill self
    return self __bill

#Setter method to change the value shop_Name using an object.
@bill.setter
def bill self  tbl_bill
    if self __bill == "None"
        self __bill = "None"
    else
        self __bill = tbl_bill
```