Assignment 1
Shopping App Using Python

You are a Python developer, building a shopping application or e-commerce application with login and public login features on the Python platform. The application should include categories such as footwear, clothing, and electronics. You should be able to add and update categories in the application. Additionally, the application must allow users to add or remove items from their cart. Finally, the program needs to support various payment options including UPI and debit cards. This is a backend implementation, and UX/UI and database connectivity are not required.

Program Code

```python
print("\n-------------------------------")
print("Welcome to the eMarketplace")
print("-------------------------------\n")

#Admin Login
admin_db = {'admin1':'admin1@123','admin2':'admin2@123'}

#User Login
user_db = {'ajai':'ajai@123','melissa':'melissa@123'}

#Login function for users
def user_login():
    success = 0
    print("\n-------------")
    print("User Login")
    print("-------------")

    u_name = input("Username: ")    #Username
    u_pwd = input("Password: ")     #Password
    for name,pwd in user_db.items():
        if name == u_name and pwd == u_pwd:
            print(f"\nHello {u_name}..Welcome to eMarketplace\n")
```

```python
            success = 1
            user_menu()
    if success == 0:
        print("\nInvalid Credentials..Try Again!\n")
        user_login()



#Login function for admin
def admin_login():
    success = 0
    print("\n-------------")
    print("Admin Login")
    print("-------------")

    u_name = input("Username: ")    #Username
    u_pwd = input("Password: ")     #Password
    for name,pwd in admin_db.items():
        if name == u_name and pwd == u_pwd:
            print(f"\nHello {u_name}..Welcome to eMarketplace Admin\n")
            success = 1
            admin_menu()
    if success == 0:
        print("\nInvalid Credentials..Try Again!\n")
        admin_login()



#Session ID generator function return a fixed session ID
def generate_session_id():
    return 98765


catalog = [{'id':1,'Name':'Hp Laptop','Category':'Electronics','Price':75000},
        {'id':2,'Name':'Puma Shoes','Category':'Footwear','Price':2500},
        {'id':3,'Name':'Shirt Black','Category':'Fashion    ','Price':1200},
        {'id':4,'Name':'Pants White','Category':'Fashion    ','Price':65000},
        {'id':5,'Name':'Notebook','Category':'Stationary','Price':60}]
```

```python
#Function to display the catalog
def display_catalog():
    print("\nCatalog Page")
    print("--------------")
    print("id\tName\t\tCategory\tPrice")
    print("---------------------------------------------")
    for products in catalog:
        for key,val in products.items():
            print(val,end="\t")
        print()
    print("--------------------------------------")


#Store cart details
cart = []

#Function display cart
def display_cart():
    print("\nMy Cart")
    print("------------------")
    print("id\tName\t\tPrice\tQuantity\tTotal")
    print("--------------------------------------------------------")
    for products in cart:

print(f"{products['p_id']}\t{products['name']}\t{products['price']}\t{products['qty']}\t\t{products['price']* products['qty']}")
        print()
    print("--------------------------------------------------------")


#Function to add items to cart
def add_to_cart(product,qty):
    session = generate_session_id()
    #Stores each item
    cart_dict = {}
    cart_dict['s_id'] = session
    cart_dict['p_id'] = product['id']
```

```python
        cart_dict['qty'] = qty
        cart_dict['name'] = product['Name']
        cart_dict['price'] = product['Price']

        cart.append(cart_dict)
        print(f"\n{product['Name']} added to cart Sucesfully..!!")


#Function to delete items from cart
def delete_from_cart(cart):
    display_cart()
    delete = int(input("\nEnter id of product to remove: "))
    qty = int(input("Enter quantity to remove: "))
    item_found = False
    for item in cart:
        if item['p_id'] == delete:
            item_found = True
            if item['qty'] <= qty:
                cart.remove(item)
            else:
                item['qty'] -= qty
            break

    if not item_found:
        print("Item not found in the cart.")

    display_cart()


#Function for checkout option
def checkout(cart):
    print("---Checkout---")
    print("--------------")
    display_cart()
    print("Select a Payment Method: ")
    print("1: UPI")
    print("2. Cash On Delivery")
```

```python
        pay = int(input("Choice: "))
        if(pay ==1):
            print("Validating.......")
            print("Payment Succesfull")
            print("Thanks.....!")
            cart.clear()
        elif pay ==2:
            print("Cash on Delivery Confirmed!")
            print("Thanks..!")
            cart.clear()

def exiting():
    print("Thank you for using eMarketplace")

def add_product():
    display_catalog()
    print("Enter product details")
    new = {}
    new['id'] = int(input("Id: "))
    new['name'] = input("Name: ")
    new['cat'] = input("Category: ")
    new['price'] = int(input("Price: "))
    catalog.append(new)
    print("\n Product Added succesfully..!")

def remove_product():
    display_catalog()
    it = int(input("Enter id to remove: "))
    for i in catalog:
        if i['id'] == it:
            catalog.remove(i)
            print("Item removed sucesfully..!")


def user_menu():
    ch = 0
    while(ch != 6):
```

```python
        print("\neMrketplace")
        print("1. View Catelog")
        print("2. View Cart")
        print("3. Update Cart")
        print("4. Add to cart")
        print("5. Checout")
        print("6. Exit")
        ch = int(input("Choice: "))
        if ch == 1:
            display_catalog()
        elif ch == 2:
            display_cart()
        elif ch==3:
            delete_from_cart(cart)
        elif ch == 4:
            display_catalog()
            it = int(input("Enter id to add to cart: "))
            qty = int(input("Enter quantity: "))
            for i in catalog:
                if it == i['id']:
                    add_to_cart(i,qty)
                    s = 1
                if s!= 1:
                    print("Enter valid id")
        elif ch == 5:
            checkout(cart)
        elif ch == 6:
            exiting()
        else:
            print("Enter valid choice..!")


def admin_menu():
    ch = 0
    while(ch != 4):
        print("\neMrketplace")
        print("1. View Catelog")
```

```python
        print("2. Add Product")
        print("3. Remove Product")
        print("4. Exit")
        ch = int(input("Choice: "))
        if ch == 1:
            display_catalog()
        elif ch == 2:
            add_product()
        elif ch==3:
            remove_product()
        elif ch == 4:
            exiting()
        else:
            print("Enter valid choice..!")

print("Select your choice")
print("1. User Login")
print("2. Admin Login")
ch = int(input("Choice: "))

while(ch):
    if ch == 1:
        user_login()
        break
    elif ch ==2:
        admin_login()
        break
    else:
        print("Enter a valid choice!")
```

Outputs

1) Login for user

```
----------------------------------
Welcome to the eMarketplace
----------------------------------


Select your choice
1. User Login
2. Admin Login
Choice:  1


-------------
User Login
-------------
Username:  ajai
Password:  ajai@123


Hello ajai..Welcome to eMarketplace
```

2) Products Catalog

```
eMrketplace
1. View Catelog
2. View Cart
3. Update Cart
4. Add to cart
5. Checout
6. Exit
Choice:  1

Catalog Page
-------------
id      Name            Category        Price
----------------------------------------
1       Hp Laptop       Electronics     75000
2       Puma Shoes      Footwear        2500
3       Shirt Black     Fashion         1200
4       Pants White     Fashion         65000
5       Notebook        Stationary      60
----------------------------------------
```

3) Add to Cart

```
eMrketplace
1. View Catelog
2. View Cart
3. Update Cart
4. Add to cart
5. Checout
6. Exit
Choice:  4

Catalog Page
--------------
id      Name              Category        Price
-----------------------------------------------
1       Hp Laptop         Electronics     75000
2       Puma Shoes        Footwear        2500
3       Shirt Black       Fashion         1200
4       Pants White       Fashion         65000
5       Notebook          Stationary      60
----------------------------------------
Enter id to add to cart:  1
Enter quantity:  2

Hp Laptop added to cart Sucesfully..!!
```

```
My Cart
------------------
id      Name              Price   Quantity        Total
--------------------------------------------------------
1       Hp Laptop         75000   2               150000

--------------------------------------------------------
```

4) Update Cart

```
My Cart
------------------
id        Name              Price    Quantity        Total
----------------------------------------------------------
1         Hp Laptop         75000    2               150000

2         Puma Shoes        2500     1               2500


----------------------------------------------------------

Enter id of product to remove:  1
Enter quantity to remove:  1
```

```
 My Cart
 ------------------
 id        Name              Price    Quantity        Total
 ---------------------------------------------------------
 1         Hp Laptop         75000    1               75000

 2         Puma Shoes        2500     1               2500


 ---------------------------------------------------------
```

5) Checkout

```
 ---Checkout---
 ---------------

 My Cart
 ------------------
 id        Name              Price    Quantity        Total
 ---------------------------------------------------------
 1         Hp Laptop         75000    1               75000

 2         Puma Shoes        2500     1               2500


 ---------------------------------------------------------
 Select a Payment Method:
 1: UPI
 2. Cash On Delivery

 Choice:  1

 Validating.......
 Payment Succesfull
```

6) Login for admin

```
--------------------------------
Welcome to the eMarketplace
--------------------------------


Select your choice
1. User Login
2. Admin Login
Choice:  2


-------------
Admin Login
-------------
Username:  admin1
Password:  admin1@123


Hello admin1..Welcome to eMarketplace Admin
```

7) Add product new

```
eMrketplace
1. View Catelog
2. Add Product
3. Remove Product
4. Exit
Choice:  2

Catalog Page
-------------
id      Name            Category        Price
---------------------------------------------
1       Hp Laptop       Electronics     75000
2       Puma Shoes      Footwear        2500
3       Shirt Black     Fashion         1200
4       Pants White     Fashion         65000
5       Notebook        Stationary      60
---------------------------------------
Enter product details
Id:  6
Name:  Water Bottle
Category:  Stationary
Price:  125

 Product Added succesfully..!
```

```
Catalog Page
--------------
id       Name          Category      Price
-------------------------------------------
1        Hp Laptop     Electronics   75000
2        Puma Shoes    Footwear      2500
3        Shirt Black   Fashion       1200
4        Pants White   Fashion       65000
5        Notebook      Stationary    60
6        Water Bottle  Stationary    125
-------------------------------------------
```