

```
import csv

products={}

orders={}

def export_orders_to_csv():

    filename="orders.csv"

    file=open(filename,mode='w',newline='')

    writer=csv.writer(file)

    writer.writerow(["Customer Name","Product
Name","Quantity","Total Amount"])

    for cname,orders_list in orders.items():

        for order in orders_list:

writer.writerow([cname,order["product"],order["qt
y"],order["total"]])

def add_products():

    pid=input("Enter product ID:")
```

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if pid in products:
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```
    print("Product already exists")
```

```
else:
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```
    name=input("Enter the Product Name:")
```

```
    price=float(input("Enter Price:"))
```

```
    stock=int(input("Enter Stock Quantity:"))
```

```
products[pid]={"name":name,"price":price,"stock":stock}
```

```
    print(products)
```

```
def view_products():
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```
    if not products:
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```
        print("No products available")
```

```
    else:
```

```
        print("Available Products:")
```

```
        for pid,details in products.items():
```

```
print(f"ID:{pid},Name:{details['name']},Price:{details  
['price']},Stock:{details['stock']}")
```

```
def place_order():
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```
    pid=input("Enter product Id to buy")
```

```
    if pid in products:
```

```
        quantity=int(input("Enter Quantity:"))
```

```
        if 0<quantity<=products[pid]["stock"]:
```

```
            cname=input("Enter your name:")
```

```
            total=quantity*products[pid]["price"]
```

```
            products[pid]["stock"]-=quantity
```

```
            if cname not in orders:
```

```
                orders[cname]=[]
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```
            orders[cname].append({
```

```
                "product":products[pid]["name"],
```

```
        "qty":quantity,
        "total":total
    })

    print(f"order placed! Total:{total}")

else:

    print("Insufficient Stock or invalid
Quantity")

else:

    print("Product Not Found")

def view_orders():

    if not orders:

        print("No orders placed")

    else:

        for cname,orders_list in orders.items():

            print(f"\n Orders for {cname}:")

            for order in orders_list:
```

```
        print(f"-
{order['product']}X{order['qty']}={order['total']}")
def menu():
    while True:
        print("\n E-commerce Application")
        print("1.Add Products")
        print("2.View Products")
        print("3.Place Order")
        print("4.View Orders")
        print("5.Export Orders to csv")
        choice=input("Choose an option(1-5):")
        if choice=="1":
            add_products()
        elif choice=="2":
            view_products()
        elif choice=="3":
```

```
        place_order()
    elif choice=="4":
        view_orders()
    elif choice=="5":
        export_orders_to_csv()
menu()
```