1.class Inventory:

def \_\_init\_\_(self):

self.items = {}

def add\_item(self, name, quantity):

if name in self.items:

self.items[name] += quantity

else:

self.items[name] = quantity

print(f"Added {quantity} of {name}.")

def remove\_item(self, name):

if name in self.items:

del self.items[name]

print(f"Removed {name} from inventory.")

else:

print(f"{name} not found in inventory.")

def update\_quantity(self, name, quantity):

if name in self.items:

self.items[name] = quantity

print(f"Updated {name} quantity to {quantity}.")

else:

print(f"{name} not found in inventory.")

def view\_inventory(self):

if not self.items:

print("Inventory is empty.")

else:

print("Current Inventory:")

for name, quantity in self.items.items():

print(f"{name}: {quantity}")

def main():

inventory = Inventory()

while True:

print("\nInventory System")

print("1. Add Item")

print("2. Remove Item")

print("3. Update Quantity")

print("4. View Inventory")

print("5. Exit")

choice = input("Enter your choice (1-5): ")

if choice == '1':

name = input("Enter item name: ")

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

inventory.add\_item(name, quantity)

elif choice == '2':

name = input("Enter item name to remove: ")

inventory.remove\_item(name)

elif choice == '3':

name = input("Enter item name to update: ")

quantity = int(input("Enter new quantity: "))

inventory.update\_quantity(name, quantity)

elif choice == '4':

inventory.view\_inventory()

elif choice == '5':

print("Exiting Inventory System.")

break

else:

print("Invalid choice. Please try again.")

if \_\_name\_\_ == "\_\_main\_\_":

main()

2. class Inventory:

def \_\_init\_\_(self):

self.items = {}

def add\_item(self, name, quantity):

if name in self.items:

self.items[name] += quantity

print(f"Updated '{name}' quantity by adding {quantity}. New quantity: {self.items[name]}")

else:

self.items[name] = quantity

print(f"Added '{name}' with quantity {quantity}.")

def view\_inventory(self):

if not self.items:

print("Inventory is empty.")

else:

print("\nCurrent Inventory:")

for name, quantity in self.items.items():

print(f"- {name}: {quantity}")

def main():

inventory = Inventory()

while True:

print("\n--- Inventory Menu ---")

print("1. Add/Update Item")

print("2. View Inventory")

print("3. Exit")

choice = input("Enter your choice (1-3): ").strip()

if choice == '1':

name = input("Enter item name: ").strip()

try:

quantity = int(input("Enter quantity to add: "))

if quantity <= 0:

print("Quantity must be a positive number.")

continue

inventory.add\_item(name, quantity)

except ValueError:

print("Please enter a valid number for quantity.")

elif choice == '2':

inventory.view\_inventory()

elif choice == '3':

print("Exiting Inventory System.")

break

else:

print("Invalid choice. Please select 1, 2, or 3.")

if \_\_name\_\_ == "\_\_main\_\_":

main()

3. class Inventory:

def \_\_init\_\_(self):

self.items = {}

def add\_item(self, name, quantity):

if name in self.items:

self.items[name] += quantity

print(f"Updated '{name}' quantity by adding {quantity}. New quantity: {self.items[name]}")

else:

self.items[name] = quantity

print(f"Added '{name}' with quantity {quantity}.")

def view\_inventory(self):

if not self.items:

print("Inventory is empty.")

else:

print("\nCurrent Inventory:")

for name, quantity in self.items.items():

print(f"- {name}: {quantity}")

def get\_item\_info(self, name):

if name in self.items:

print(f"\nItem found:\n- {name}: {self.items[name]}")

else:

print(f"Item '{name}' not found in inventory.")

def main():

inventory = Inventory()

while True:

print("\n--- Inventory Menu ---")

print("1. Add/Update Item")

print("2. View All Inventory")

print("3. Get Item Info")

print("4. Exit")

choice = input("Enter your choice (1-4): ").strip()

if choice == '1':

name = input("Enter item name: ").strip()

try:

quantity = int(input("Enter quantity to add: "))

if quantity <= 0:

print("Quantity must be a positive number.")

continue

inventory.add\_item(name, quantity)

except ValueError:

print("Please enter a valid number for quantity.")

elif choice == '2':

inventory.view\_inventory()

elif choice == '3':

name = input("Enter item name to look up: ").strip()

inventory.get\_item\_info(name)

elif choice == '4':

print("Exiting Inventory System.")

break

else:

print("Invalid choice. Please select 1, 2, 3, or 4.")

if \_\_name\_\_ == "\_\_main\_\_":

main()

4. --- Inventory Menu ---

1. Add/Update Item

2. View All Inventory

3. Get Item Info

4. Exit

Enter your choice (1-4): 3

Enter item name to look up: Apples

Item found:

- Apples: 15