**Demonstrate the use of add(),discard(),difference(),insertion() and union() methods on set data type.**

**Code**

# Define a function to display the menu

def display\_menu():

print("\nChoose an operation:")

print("1. Add a fruit to the set")

print("2. Discard a fruit from the set")

print("3. Find the difference between two fruit sets")

print("4. Find the union of two fruit sets")

print("5. Find the intersection of two fruit sets")

print("6. Display the current fruit set")

print("7. Exit")

# Main function

def main():

# Initialize the set with some fruits

fruit\_set = set(['apple', 'banana', 'orange'])

print("Original list of fruit")

print(fruit\_set)

while True:

display\_menu()

choice = input("Enter your choice (1-7): ")

if choice == '1':

fruit = input("Enter a fruit to add: ")

fruit\_set.add(fruit)

print(f"Added '{fruit}' to the fruit set: {fruit\_set}")

elif choice == '2':

fruit = input("Enter a fruit to discard: ")

fruit\_set.discard(fruit)

print(f"Discarded '{fruit}' from the fruit set: {fruit\_set}")

elif choice == '3':

other\_fruit\_set = set(input("Enter elements of another fruit set (comma-separated): ").split(','))

difference = fruit\_set.difference(other\_fruit\_set)

print(f"Difference (fruit\_set - other\_fruit\_set): {difference}")

elif choice == '4':

other\_fruit\_set = set(input("Enter elements of another fruit set (comma-separated): ").split(','))

union = fruit\_set.union(other\_fruit\_set)

print(f"Union: {union}")

elif choice == '5':

other\_fruit\_set = set(input("Enter elements of another fruit set (comma-separated): ").split(','))

intersection = fruit\_set.intersection(other\_fruit\_set)

print(f"Intersection: {intersection}")

elif choice == '6':

print(f"Current fruit set: {fruit\_set}")

elif choice == '7':

print("Exiting the program.")

break

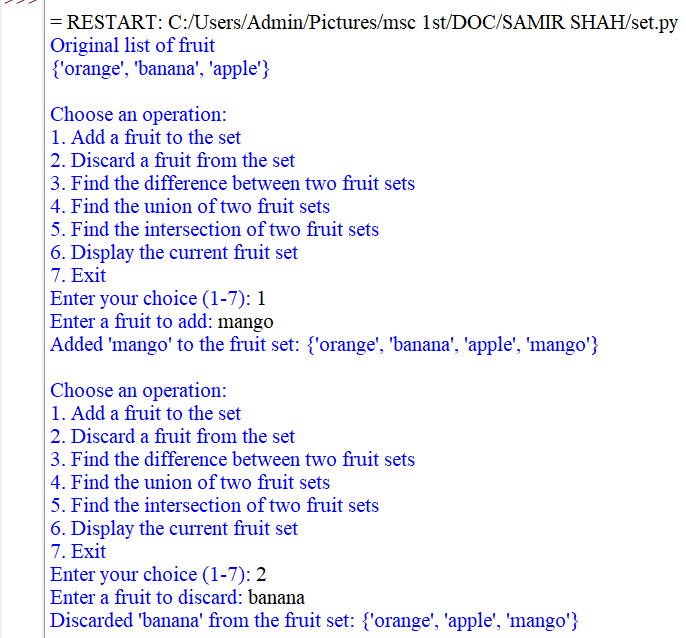
else:

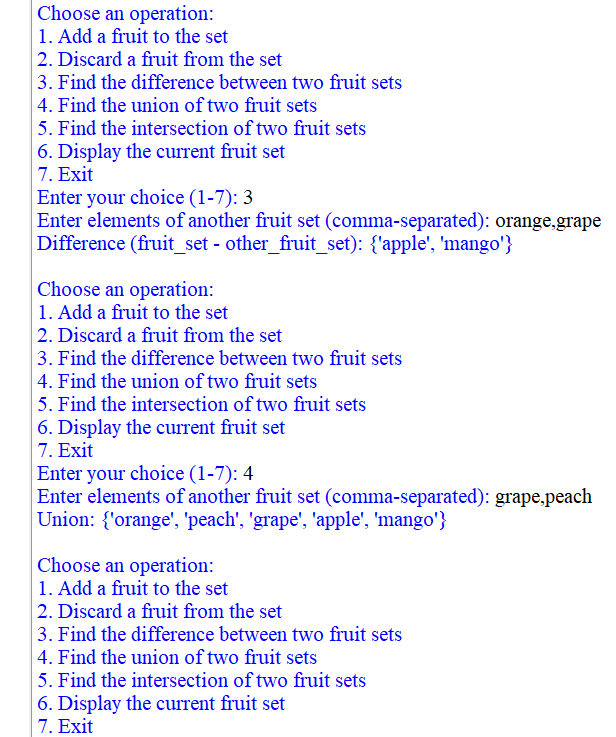
print("Invalid choice. Please choose a number between 1 and 7.")

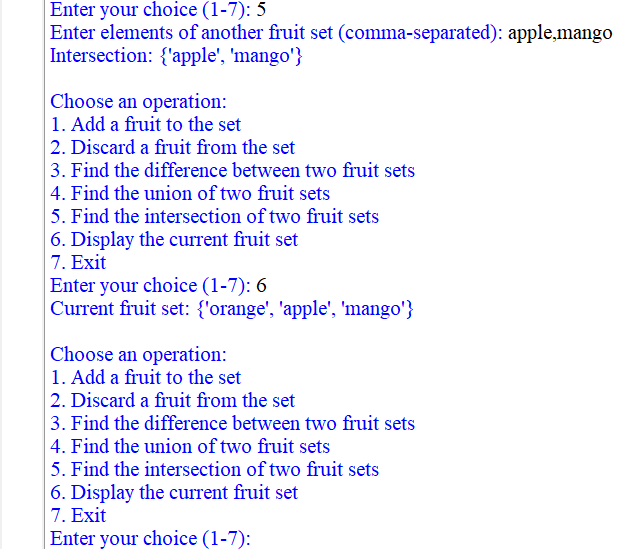
if \_\_name\_\_ == "\_\_main\_\_":

main()

**OUTPUT:-**

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