CUETO, ALEXA JOYCE G.
TW23
IT011 – SETS AND DICTIONARY

PART 1: SETS

a. How many elements are there in set A and B

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The number of elements in Set A and B is  10
```

b. How many elements are there in B that is not part of A and C

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The number of elements that are in B but not in A and C is  3
```

c. Show the following using set operations

i. [h, i, j, k]

```
[j, h, i, k]
```

ii. [c, d, f]

```
[f, c, d]
```

iii. [b, c, h]

```
[h, c, b]
```

iv. [d, f]

```
[f, d]
```

v. [c]

```
[c]
```

vi. [l, m, o]

```
[m, l, o]
```

Whole Output:

```
PS C:\it0011_CUETO> & "C:/Users/Alexa Cueto/AppData/Local/Programs/Python/Python313/
 c:/it0011_CUETO/TA4_B/Set.py
The number of elements in Set A and B is  10

The number of elements that are in B but not in A and C is  3

[j, h, i, k]

[f, c, d]

[h, c, b]

[f, d]

[c]

[m, l, o]
PS C:\it0011_CUETO>
```

Source Code

```
#CUETO, ALEXA JOYCE G
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#SET

setA = {"a", "b", "c", "d", "f", "g"}
setB = {"l", "m", "o", "b", "c", "h"}
setC = {"c", "h", "k", "i", "j", "f", "d"}

#Number of elements in SET A and SET B
setD = setA.union(setB)
print("The number of elements in Set A and B is ", len(setD))
```
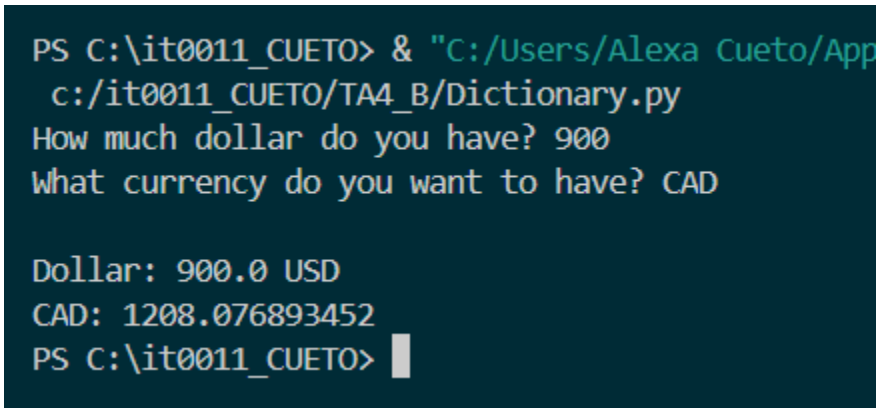
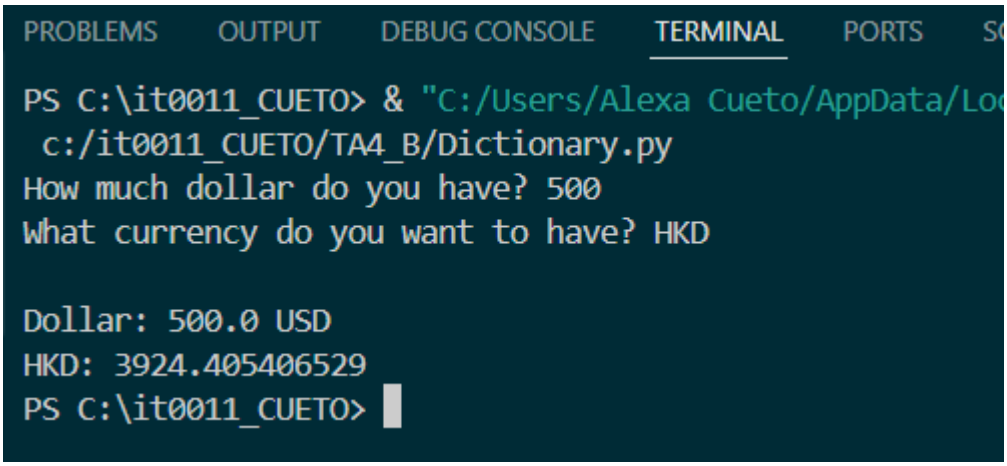
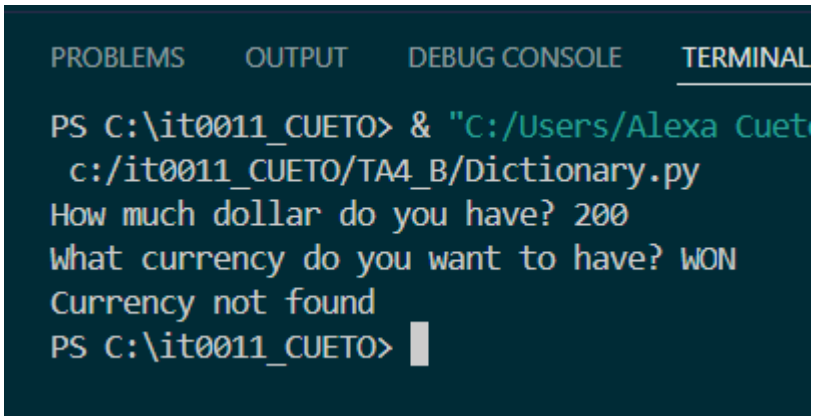

```
#Elements in B but not in A and C
setE = setB.difference(setA, setC)
print("\nThe number of elements that are in B but not in A and C
is ", len(setE))

#Show [h,i,j,k]
result1 = setC.intersection({"h", "i", "j", "k"})
print(f"\n[{', '.join(result1)}]")

#Show [c,d,f]
result2 = setA.intersection(setB, setC)
result3 = setA.intersection(setC)
result4 = result2.union(result3)
print(f"\n[{', '.join(result4)}]")

#Show [b,c h]
result5 = setA.intersection(setB).union(setB.intersection(setC))
print(f"\n[{', '.join(result5)}]")

#Show [d,f]
result6 = setA.intersection(setC) - {"c"}
print(f"\n[{', '.join(result6)}]")

#Show [c]
result7 = setA.intersection(setB, setC)
print(f"\n[{', '.join(result7)}]")

#Show [l,m,o]
result8 = setB.difference(setA)
result9 = result8.difference(setC)
print(f"\n[{', '.join(result9)}]")
```

PART 2: DICTIONARY

Output:







Source Code:

```
#CUETO, ALEXA JOYCE G
#TW23
#DICTIONARY

import csv

exchangeRates ={} #Initialize as dictionary

with open("currency.csv", mode="r") as file:
    reader = csv.reader(file)
    next(reader)
    for row in reader:
        code, name, rate = row
        exchangeRates[code] = float(rate)

dollarMoney = float(input("How much dollar do you have? "))
currency = input("What currency do you want to have? ")

if currency in exchangeRates:
    convertedMoney = dollarMoney * exchangeRates[currency]
    print(f"\nDollar: {dollarMoney} USD")
    print(f"{currency}: {convertedMoney:.9f}")
else:
    print("Currency not found")
```