LABORATORY ACTIVITY 4B: SET AND DICTIONARY
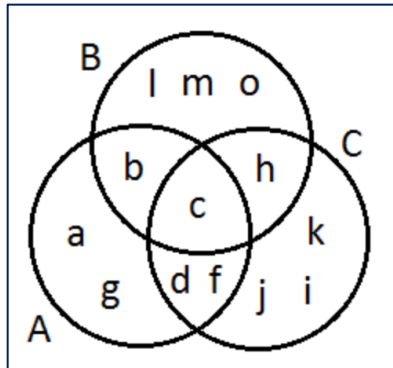
PROGRAM 1:

Use set operations to write the equivalent syntax that will show the needed output as given from the following statements given the figure below.

  a) How many elements are there in set A and B
  b) How many elements are there in B that is not part of A and C
  c) Show the following using set operations

  i.   [h, i, j, k]
  ii.   [c, d, f]
  iii.   [b, c, h]
  iv.   [d, f]
  v.   [c]
  vi.   [l, m, o]

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================================================================
|              ~ VENN DIAGRAM SET OPERATIONS ~                 |
|                    By Pauline Mapoy                          |
================================================================

[a] Elements in A and B (A ∪ B): 10
[b] Elements in B that are not in A and C (B − (A ∪ C)): 3


----------------------------------------------------------------
|              SHOWING SPECIFIC SET OPERATIONS                 |
================================================================
[c] i: {'k', 'j', 'i'}
     • Elements that belong only to C (C − A − B)
================================================================
[c] ii: {'c'}
     • Elements common to all three sets (A ∩ B ∩ C)
================================================================
[c] iii: {'h', 'c'}
     • Elements that belong to both B and C (B ∩ C)
================================================================
[c] iv: {'c', 'b'}
     • Elements that belong to both A and B (A ∩ B)
================================================================
[c] v: {'c'}
     • Elements common to A, B, and C (A ∩ B ∩ C)
================================================================
[c] vi: {'o', 'l', 'm'}
     • Elements that belong only to B (B − (A ∪ C))
================================================================
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PROGRAM 2:
given the file currency.csv (currency exchange from 1 USD), create a program that will convert a certain input currency given the dollar to be converted.

Example Output:
How much dollar do you have? 100
What currency you want to have? PHP

Dollar: 100 USD
Philippine Peso: 5481.472580697

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=============================================
|            $ CURRENCY CONVERTER $         |
|               By Pauline Mapoy            |
=============================================

Enter the amount in USD: 100
Enter the currency code to convert to: PHP


=============================================
|                !! RESULT !!               |
=============================================
    USD:                  100.00 USD
    Philippine Peso       5,481.47 PHP
=============================================

Do you want to convert another currency? (yes/no): no


=============================================
|      THANK YOU FOR USING THE PROGRAM      |
|             Come Back Again! :)           |
=============================================
```

```
=============================================
|            $ CURRENCY CONVERTER $         |
|               By Pauline Mapoy            |
=============================================

Enter the amount in USD: 80
Enter the currency code to convert to: SGD


=============================================
|                !! RESULT !!               |
=============================================
    USD:                  80.00 USD
    Singapore Dollar       106.04 SGD
=============================================

Do you want to convert another currency? (yes/no): yes

Enter the amount in USD: 20
Enter the currency code to convert to: AUD


=============================================
|                !! RESULT !!               |
=============================================
    USD:                  20.00 USD
    Australian Dollar       28.80 AUD
=============================================

Do you want to convert another currency? (yes/no): no


=============================================
|      THANK YOU FOR USING THE PROGRAM      |
|             Come Back Again! :)           |
=============================================
```