Assignment Sheet – 0

1. Write a Python program to print all even numbers from a given numbers list in the same order and stop the printing if any numbers that come after 237 in the sequence.
    Sample numbers list:
    numbers = [386, 462, 47, 418, 907, 344, 236, 375, 823, 566, 597, 978, 328, 615, 953, 345, 399, 162, 758, 219, 918, 237, 412, 566, 826, 248, 866, 950, 626, 949, 687, 217, 815, 67, 104, 58, 512, 24, 892, 894, 767, 553, 81, 379, 843, 831, 445, 742, 717, 958,743, 527]

2. Write a Python program to print out a set containing all the colours from color_list_1 which are not present in color_list_2.
    Test Data:
    color_list_1 = set(["White", "Black", "Red"])
    color_list_2 = set(["Red", "Green"])
    Expected Output:
        {'Black', 'White'}

3. WAP to find if the given input string is Pangram or not

4. Write a Python program that accepts an integer (n) and computes the value of n+nn+nnn.
    Sample value of n is 5
    Expected Result: 615

5. Write a python program to take input from console in following fashion
        23 54 12#98 3 17
    and generate the corresponding two list having integers inside (not string)
    x = [23, 54, 12]
    y = [98, 3, 17]

6. Write a program that accepts a comma separated sequence of words as input and prints the words in a comma-separated sequence after sorting them alphabetically.
    Suppose the following input is supplied to the program:
        without,hello,bag,world
    Then, the output should be:
        bag,hello,without,world

7. Write a Python function to find the name of person obtained highest marks in exam from given dictionary
    Example dictionary
        d = {'Student': ['Rahul', 'Kishore', 'Vidhya', 'Raakhi'],
                    'Marks': [57,87,67,79]}
    Output: Kishore

8. Write a program that accepts a sentence and calculate the number of letters and digits.
    Suppose the following input is supplied to the program:
        hello world! 123
    Then, the output should be:
        LETTERS 10
        DIGITS 3

9. Write a python function which creates a new dictionary of students from a given Dataset of various subject to a specific subject or topic only.
Example Data:
```
d = {'Name': ['Akash', 'Soniya', 'Vishakha' , 'Akshay', 'Rahul', 'Vikas'],
        'Subject': ['Python', 'Java', 'Python', 'C', 'Python', 'Java'],
        'Ratings': [8.4, 7.8, 8, 9, 8.2, 5.6]}
```
Input: Python
Output:
```
newData = {'Name': ['Akash', 'Vishakha', 'Rahul'],
        'Subject': ['Python', 'Python', 'Python'],
        'Ratings': [8.4, 8, 8.2]}
```

10. Define a class with a generator which can iterate the numbers, which are divisible by 7, between a given range 0 and n.

11. A robot moves in a plane starting from the original point (0,0). The robot can move toward UP, DOWN, LEFT and RIGHT with a given steps. The trace of robot movement is shown as the following:
```
UP 5
DOWN 3
LEFT 3
RIGHT 2
```
The numbers after the direction are steps. Please write a program to compute the distance from current position after a sequence of movement and original point. If the distance is a float, then just print the nearest integer.
Example:
If the following tuples are given as input to the program:
```
UP 5
DOWN 3
LEFT 3
RIGHT 2
```
Then, the output of the program should be:
```
2
```