**PYTHON ACTIVITY 5:**

**SETS:**

1. Write a Python program to find maximum and the minimum value in a set.
2. Write a Python program to check if two given sets have no elements in common.
3. Write a Python program to remove the intersection of a 2nd set from the 1st set.

**FUNCTIONS:**

1. Words like first, second and third are referred to as ordinal numbers. In this exercise, you will write a function that takes an integer as its only parameter and returns a string containing the appropriate English ordinal number as its only result. Your function must handle the integers between 1 and 12 (inclusive). It should return an empty string if a value outside of this range is provided as a parameter. Include a main program that demonstrates your function by displaying each integer from 1 to 12 and its ordinal number. Your main program should only run when your file has not been imported into another program.
2. A prime number is an integer greater than 1 that is only divisible by one and itself.Write a function that determines whether or not its parameter is prime, returning True if it is, and False otherwise. Write a main program that reads an integer from the user and displays a message indicating whether or not it is prime. Ensure that the main program will not run if the file containing your solution is imported into another program.
3. In a particular jurisdiction, older license plates consist of three letters followed by three numbers. When all of the license plates following that pattern had been used, the format was changed to four numbers followed by three letters. Write a function that generates a random license plate. Your function should have approximately equal odds of generating a sequence of characters for an old license plate or a new license plate. Write a main program that calls your function and displays the randomly generated license plate.

**Lambda Function:**

1. Write a Python program to create a lambda function that adds 15 to a given number passed in as an argument, also create a lambda function that multiplies argument x with argument y and print the result.   
   Sample Output:  
   25  
   48
2. Write a Python program to filter a list of integers using Lambda.  
   Original list of integers:  
   [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]  
   Even numbers from the said list:  
   [2, 4, 6, 8, 10]  
   Odd numbers from the said list:  
   [1, 3, 5, 7, 9]
3. Write a Python program to extract year, month, date and time using Lambda.

Sample Output:  
2020-01-15 09:03:32.744178  
2020  
1  
15  
09:03:32.744178

1. Write a Python program to find intersection of two given arrays using Lambda.

Sample Output:

Original arrays:  
[1, 2, 3, 5, 7, 8, 9, 10]  
[1, 2, 4, 8, 9]  
Intersection of the said arrays: [1, 2, 8, 9]