



Programme	:	MCA	Semester	:	Fall 23-24
Course	:	Python Programming Lab	Code	:	PMCA602P
Faculty	:	Dr. B. Saleena	Slot	:	L43+L44

Exercise -3 Control Structures (09/08/2023)

- 1) Write a Program Which Repeatedly Reads Numbers Until the User Enters 'done'. Once 'done' Is Entered, Print Out the Total, Count, and Average of the Numbers. If the User Enters Anything Other Than a Number it should prompt an error message.
- 2) Write a Python Program to Find the GCD and LCM of two numbers
- 3) Given a number k and a digit d , write a program to
 - a. check if d occurs in k
 - b. output the number of times d occurs in k
 - c. output the exact position(s) at which d occurring in k .
- 4) Write a Python program, which outputs all local maximums of a given data of elements. A number x_i is a local maximum if it is more than both x_{i-1} and x_{i+1} . If the elements are 25, 19, 22, 23, 21, 12, 10, 17, 11, 13, 10 then 23, 17 and 13 are local maximums.
- 5) A Molecular biologist is having the following representation of DNA sequence, "ATCTCAGTCGTTGTCTACATGCGCCCTCGATGGGTCGCTAGACGTAGACGCTAGCTAAGA". This DNA sequence is made up of four chemical bases, Adenine (A), Cytosine (C), Thymine (T), and Guanine (G) respectively. A triplet of adjacent chemical bases in a particular pattern is called as codon. The different types of codon are Asparagine (TTA or TTG), Cystine (ACA or ACG) and Stop (TAG or TAA or TGA) Codons. Write a python program to find the number of occurrences of codons until a stop codon is found.