Attach the assignment to your HW/Lab   ENGR 102 Section   **Lab 8b**
 Date: _____   **DUE DATE: see website**
 You name _____Team # (table)_____

ENGR 102 Sect   Lab 8b
Individual Canvas submission
150 points

Reading assignment:

Lecture Slides	L07, L08
zyBook	Chapter 7
Halterman python book handout	Chapter 9 Lists

Attention!!

You are allowed to work in group, but it is individual submission.

Submit your Py-files together with your word/pdf file with screenshots of your codes and tests outputs. Include any derivations, comments and supplemental notes in your word/pdf files.

If you are making pictures by the phone –make sure that it is readable. You will be allowed to resubmit and reupload HW as many times as you want to within the due date/time, only last submission will be graded. See syllabus for late submissions. For submission you may use this file as template: rename file including your name. Do not forget to put your name inside of this file as well.

Deliverables: result file with your screen shots and all your py-files

You are tasked with writing codes. These problems are straightforward but will require you to spend time developing your logic. Complete any 3 green [3x10=30 points], 3 cyan[3x10=30 points], 3 yellow[3x10=30 points], and 6 magenta[6x10=60 points] python files.

1. Python Program to Replace all Occurrences of 'a' with $ in a String
2. Python Program to Remove the nth Index Character from a Non-Empty String
3. Python Program to Detect if Two Strings are Anagrams
4. Python Program to Form a New String where the First Character and the Last Character have been Exchanged
5. Python Program to Count the Number of Vowels in a String
6. Python Program to Take in a String and Replace Every Blank Space with Hyphen
7. Python Program to Calculate the Length of a String Without Using a Library Function
8. Python Program to Remove the Characters of Odd Index Values in a String

9. Python Program to Add a Key-Value Pair to the Dictionary
10. Python Program to Concatenate Two Dictionaries Into One
11. Python Program to Check if a Given Key Exists in a Dictionary or Not
12. Python Program to Generate a Dictionary that Contains Numbers (between 1 and n) in the Form (x,x*x).
13. Python Program to Sum All the Items in a Dictionary
14. Python Program to Multiply All the Items in a Dictionary

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15. Python Program to Find the Largest Number in a List
16. Python Program to Find the Second Largest Number in a List
17. Python Program to Put Even and Odd elements in a List into Two Different Lists
18. Python Program to Merge Two Lists and Sort it
19. Python Program to Sort the List According to the Second Element in Sublist
20. Python Program to Find the Second Largest Number in a List Using Bubble Sort
21. Python Program to Sort a List According to the Length of the Elements
22. Python Program to Find the Union of two Lists
23. Python Program to Find the Intersection of Two Lists

24. Python Program to Compute Prime Factors of an Integer
25. Python Program to Generate all the Divisors of an Integer
26. Python Program to Print Table of a Given Number
27. Python Program to Print Sum of Negative Numbers, Positive Even Numbers and Positive Odd numbers in a List
28. Python Program to Print Largest Even and Largest Odd Number in a List
29. Python Program to Form an Integer that has the Number of Digits at Ten's Place and the Least Significant Digit of the Entered Integer at One's Place
30. Python Program to Find Those Numbers which are Divisible by 7 and Multiple of 5 in aGiven Range of Numbers
31. Python Program to Check if a Number is an Armstrong Number
32. Python Program to Print the Pascal's triangle for n number of rows given by the user
33. Python Program to Check if a Number is a Perfect Number
34. Python Program to Check if a Number is a Strong Number

35. Python Program to Find the Least Common Multiple of Two Numbers
36. Python Program to Find the Greatest Common Divisor of Two Numbers
37. Python Program to Compute a Polynomial Equation given that the Coefficients of the Polynomial are stored in a List
38. Python Program to Check If Two Numbers are Amicable Numbers
39. Python Program to Find the Area of a Triangle Given All Three Sides
40. Python Program to Find the Smallest Divisor of an Integer

Complete any 3 green, 3 cyan, 3 yellow, and 6 magenta python files. Put question/ screenshots of the code and output for each task.