**Python practice problems**

For all problems below, you can use hard-coded input values.

Problem 1: Given two sequences and of integer numbers, find a sequence . Remember that a sequence is ordered and allows duplicate values.

Problem 2: Given a string (an English sentence containing multiple words), find a new string consisting of the words in the reverse order. Perform the reverse in a separate function.

Problem 3: Given a tic-tac-tow board input, write a function that determines the winner. Your program may have hard coded input like this: board = [[1, 2, 0], [2, 1, 0], [2, 1, 1]] where a 0 means empty square, 1 mines player one’s taken square and 2 means player two’s taken square in previous game-steps.

Problem 4: Write a program in python to generate strong passwords. Your program should ask the user to give the password length as input (length should be at least 8). Your generated password should ensure the following security policies: password must contain at least one number, two capital letters and a special symbol.

Problem 5: Plot the three functions for using python. Use appropriate colors, legends, markers, labels, titles, and line styles in your plot.

Problem 6: Generate two random sequences of numbers: (i) a sequence of 1000 normal random numbers with mean 0 and standard deviation 1 and (ii) a sequence of 1000 uniform random numbers between 0 and 1. Plot histograms for both sequences in separate figures. Plot histograms for both sequences in a single figure using subplot.

Problem 7: You are given a csv file contains sales data of a company. Extract the data from the csv file using pandas library in python. Then plot the sales vs month data for the first three products in a single graph.