**Name: Session:**

**Programming I**

**Lab Exercise 9.19.2023**

Using Python, solve the following problems. Submit your documented source code. Your source code should have at minimum the following documentation:

#Name of program (i.e. Lab Exercise 9.21.2022 Problem 1)

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#Brief description of program

1. Write a program to ask the user for five names. The program should store the names in a list, and print them all out at the end. It should look something like this:

Enter 5 names:

Tony

Paul

Nick

Michel

Kevin

The names are Tony Paul Nick Michel Kevin

1. Modify the program from question #1 to print both the original list of names and a sorted list.
2. Modify the program from question #1 to display only the third name the user typed in, like this:

The third name you entered is: Nick

1. Modify the program from question #1 to let the user replace one of the names. She should be able to choose which name to replace, and then type in the new name.Finally, display the new list like this:

Enter 5 names:

Tony

Paul

Nick

Michel

Kevin

The names are Tony Paul Nick Michel Kevin

Replace one name. Which one? (1-5): 4

New name: Peter

The names are Tony Paul Nick Peter Kevin

1. Reverse a list in Python

Given:

list1 = [100, 200, 300, 400, 500]

Expected output:

[500, 400, 300, 200, 100]

1. Write a program to add two lists index-wise. Create a new list that contains the 0th index item from both the list, then the 1st index item, and so on till the last element. any leftover items will get added at the end of the new list.

Given:

list1 = ["M", "na", "i", "Ke"]

list2 = ["y", "me", "s", "lly"]

Expected output:

['My', 'name', 'is', 'Kelly']

1. Given a list of numbers. write a program to turn every item of a list into its square.

Given:

numbers = [1, 2, 3, 4, 5, 6, 7]

Expected output:

[1, 4, 9, 16, 25, 36, 49]

1. Concatenate two lists in the following order

Given:

list1 = ["Hello ", "take "]

list2 = ["Dear", "Sir"]

Expected output:

['Hello Dear', 'Hello Sir', 'take Dear', 'take Sir']

1. Given a two Python list. Write a program to iterate both lists simultaneously and display items from list1 in original order and items from list2 in reverse order.

Given:

list1 = [10, 20, 30, 40]

list2 = [100, 200, 300, 400]

Expected output:

10 400

20 300

30 200

40 100