Lab 7:

Task 1:
Write a script that checks that the string specified by the user is a palindrome, i.e., that the order of its elements is identical when reading from the left and from the right. For example, a palindrome is the inscription "madam" but is not a palindrome "madam has a cat".

Task 2:
Write a program that checks that a certain string (given by the user) can be an e-mail address.

Task 3:
Write a program that checks that two strings of characters (given by the user) are anagrams, i.e. that they have the same characters. For example, the words KIMA and MIKA are anagrams of each other, while MIKA and MIKI are not.
Hint. There may be different ways to solve this task. For example, you can count the number of times individual characters appear in both strings and then compare whether these numbers match. A dictionary can be used, the key will be a given character, and the associated value will be the number of its occurrences in the string. Remember that the comparison of two dictionaries is already implemented in Python! I am also waiting for other solutions ☺. I have three...

Task 4:
Write a script which converts a given tuple to a string:
```
    Input: ('e', 'x', 'e', 'r', 'c', 'i', 's', 'e', 's')
    Output: exercises
```
At the end, take the 4th element and the 4th element from last of a tuple and display them.
```
Output: the 4th element: r
        the 4th element from last: i
```

Task 5:
Here is a string: "HELLO WORLD". Make a tuple of it, using tuple() function. Slice a tuple to achieve the solutions presented below:

```
Output:
    ('H', 'E', 'L', 'L', 'O', ' ', 'W', 'O', 'R', 'L', 'D')
    ('L', 'O', 'W', 'R')
    ('H', 'O', 'R')
    ('L', ' ')
```