CSE485 HW0

15.02.2019

1. Write a program to find the mean of elements in a list
-write this in one line.

2. Write the python statements to count the number 4 in a given list.

-write this in one line.

3. Write a program to count lower case letters in a given string.
-write this in one line.

4. In a given list find two values which are the closest

[1,21,19,15,36,44,32,21,0]

Use sorted and
one way doing this shortly is two use sorted, min, abs methods and list creation

5. See the examples of python "**zip**". Given two lists a and b generate the third which is formed of sum of elements in a * with elements of b in one single line.

a = [1,2,3]
b = [1,0,4]
c = [-1, -1, -1, 3]

6.Write the statements to get the top three items in a shop.
Sample data: {'apple': 5.50, 'orange':3.0, 'tomato': 4.13, 'banana':11, 'pepper': 2.4}
Expected Output:

Banana 11
Apple 5.50
Tomato 4.13

7. Write a function that takes a list and returns a new list which removes the duplicates

Extras:

- Write two different functions to do this - one using a loop and constructing a list, and another using sets.

8. write a lambda function which calculates mean of 3 values
-test it.

9. See examples of “map, filter, reduce”

```
items = [1, 2, 3, 4, 5]
squared = list(map(lambda x: x**2, items))
```

```
number_list = range(-5, 5)

less_than_zero = list(filter(lambda x: x < 0, number_list))
print(less_than_zero)
```

```
from functools import reduce

product = reduce((lambda x, y: x * y), [1, 2, 3, 4])
```

a) create a list of 10 random integer tuples of three elements in range -10, 10.

Ex. [(1,2,4),(-1,0,5)..

b) print the tuple which has the greatest mean.

10. Create a csv (comma separated values) file of integer numbers

Write the statements which load this file into a list.

Print number of elements

Print maximum, minimum value