Regain position

Target:

Get to know:

- Functions and lambda expression.
- Error Handling and exception
- Dictionaries in python.
- file operation in python.

Resources:

- **Udacity** python course [Lesson 5 ,6].
- **Tech with tim** lambda expression.
- **Corey Shafer** [error handling].
- **Corey Shafer** [file operation].
- **w3schools** [recommend if you already have previous knowledge]

Evaluation:

Problem 1 □ 2 points

Problem 2 □ 2 points

Problem 3 □ 3 points

Problem 4 □ 2 points

Problem 5 □ 1 points

Deadline:

2 Days #day 8 march at 11:59 pm

Problems :

1. write a program to get the count of even numbers in a given list.
   Make use of the lambda expression. # [5,7,7,8,8,8,10] □ 4

2. Given a list of integers, write a function to return the index of the target. and if not found, sort the list and return the index of the target if it would be inserted.

   # [4,2,3,1,7] , target= 3 □ index = 2
   # [4,2,3,1,7] , target = 5 □ sorted = [1,2,3,4,7] , index = 4.

3. given a list of integers , find the 4 integers in the list such that their sum is **closest** to a target given. [No duplicates].

   # [4,2,3,1,7,12] , target = 28 □ integers = [12,4,3,7].

4. Download this file and write a program to read the file and store the users in the **dictionary** with the following structure:

   ```
   {'id' : {'name','score','birthday','sex'}}
   ```

   then write a program to answer the following **questions** :

   a. Do no store a user with no registered score ? # [N/A]
   b. What is the **ID** of the oldest user ?
   c. What is the average **score** ?
   d. What is the **sex** of the user with the highest score ?

5. In a different file, import the dictionary you just created and write a function to create a file named "**busted.txt**". Save the data of dictionary in this file without **sex** and **score**.

   # lines in the file should be like this 1 Atef - 1970