

## IT501 Introduction to Programming

# Homework 3

Please write a python method for each question and submit your solution to succurse before due date.

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#### Submission Rules;

- You should create only one file for all questions
- You should put your solutions into separate cells.
- Your file names should contain your name and last name. E.g.

## AhmetDemirelliHomework4.ipynb

- You cannot use Turkish characters in your file names or variable names
- You should write the question number as a comment before each method name.

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1. Write a method that takes two words and checks if two words are composed of the same letters.

def sameLetterCheck (word1, word2)

#### E.g.:

meta, tema → true ekrem, kerem → true silah, ihlas → true mammut, mamut → false

2. Write a method that returns the count of palindromes in a given file.

```
Input → "palindromes.txt"
Output → 8
```

3. Write a method that returns only distinct words from a given file. Input → "meyveler.txt" (you should create this file manually)

Output → {"elma", "armut", "şeftali", "muz", "ananas",

"kayısı", "portakal", "karpuz", "nar", "üzüm"}

## meyveler.txt

elma armut şeftali muz ananas kayısı şeftali portakal armut nar muz kayısı üzüm ananas elma karpuz nar muz şeftali armut ananas portakal nar



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4. Write a method that translates a given file containing Turkish words into English and writes into another file. (There will be only 10 predefined distinct words in the file.) Hint: Keep the translation information in a **dict** 

Input (names of the files)  $\rightarrow$  ("turkish.txt", "english.txt") Output  $\rightarrow$  no output

#### turkish.txt

elma, armut, şeftali, muz, ananas, kayısı, şeftali, portakal, armut, nar, muz, kayısı, üzüm, ananas, elma, karpuz, nar, muz, şeftali, armut, ananas, portakal, nar

## english.txt

apple, pear, peach, banana, pineapple, apricot, peach, orange, pear, pomegranate, banana, apricot, grape, pineapple, apple watermelon, pomegranate, banana, peach, pear, pineapple, orange, pomegranate

5. Write a method that reads (using numpy loadtxt. method) the date and the dollar value information from given text file and draws a graph using matplotlib.

(You can download and use **dolar.txt** file from SUCourse+)

Sample scatter plot for all data;

