









Richa Patel

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# Functions, Lists, and **Dictionaries**





#### Instructions

#### Instructions:

- Create a Jupyter notebook with a section for each of the assignments below.
- Attach a **PDF** file\* showing completion of all steps.
  - \* Use the web browsers print to PDF.

## **Functions (10 points)**

Write a program to prompt the user for hours and rate per hour using input to compute gross pay. Award time-and-a-half for the hourly rate for all hours worked above 40 hours. Put the logic to do the computation of time-and-a-half in a function called computepay() and use the function to do the computation.

The function should return a value. Use 45 hours and a rate of 10.50 per hour to test the program (the pay should be 498.75). You should use

input to read a string and float() to convert the string to a number.

Do not worry about error checking the user input unless you want to you can assume the user types numbers properly. Do not name your variable sum or use the sum() function.

### Lists (10 points)

Open the file romeo.txt and read it line by line. For each line, split the line into a list of words using the split() method. The program should build a list of words. When the program completes, sort (default sort) and print (horizontal or vertical print) the resulting words in alphabetical order.

## Dictionaries (10 points)

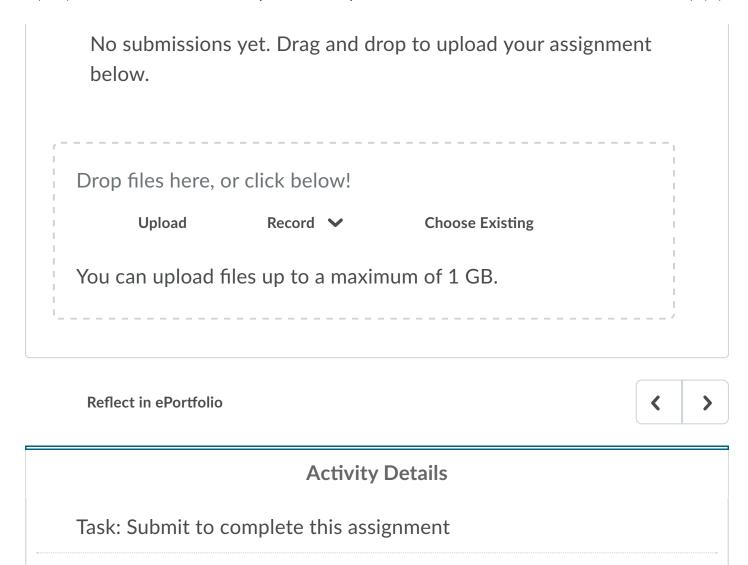
Write a program to read through the mbox-short.txt file and figure out who has the sent the greatest number of mail messages.

The program looks for 'From' lines and takes the second word of those lines as the person who sent the mail. The program creates a Python dictionary that maps the sender's mail address to a count of the number of times they appear in the file.

The assignment will help with obtaining mastery of CO1, TLO 1, TLO2, and TLO3.

mbox-short (1).txt romeo.txt

#### **Submissions**



Ends Feb 21, 2021 11:30 PM

Last Visited Jan 27, 2021 1:29 PM

Due February 14 at 11:30 PM