

Fitchburg State University
CSC 7014 Practice Computer Programming
Instructor: Nguyen Thai
Due: 9/30/2017 at 11:00 PM
Student: Lina Mi @01377283

Assignment 2: Calculate Time

The purpose of this assignment is to write a simple program to do mathematics calculations.

As you work through the assignment be sure to answer all questions (type your answers into this document) and take all screenshots as requested (copy them into the document). For the screenshots, you can use the Snipping Tool that is built-in to Windows to capture the important parts of the lab as highlighted in the document below. **Do not delete the contents of this file.** When finished, you will submit the document, source code file and associated data files to the instructor via Blackboard. **DO NOT SUBMIT ZIP FILES OR INDIVIDUAL IMAGES.** If you have any questions or need any clarification, email the instructor *before* the deadline.

1. Create a Python program called *calculateTime.py* to calculate the current hours, minutes and seconds from the given seconds. The given seconds is the total seconds calculated from January 1st, 1970.
2. A template is provided to you. You are required to use the Python numeric operators (+, -, *, etc.) to calculate the hours, minutes and seconds. You are not allowed to use the Python library function(s) to generate the result.
3. Note that:
 - a. 1 minute = 60 seconds
 - b. 1 hour = 60 minutes
 - c. 1 day = 24 hours
4. You are required to comment and indent your code appropriately.
5. **TAKE A SCREENSHOT** of your output, and paste it here. Make sure you zoom into the data area.

Spyder (Python 3.6)

File Edit Search Source Run Debug Consoles Projects Tools View Help

Editor

calculateTime.py

```

2 File: assignment2_ShowTime.py
3 Instructor: Nguyen Thai
4 Date: 9/19/2017
5 Student:
6 Description:
7
8
9 ++++++
10 import time
11 import calendar
12
13 # Get current time in seconds since January 1, 1970
14 currentTimeInSeconds = calendar.timegm(time.localtime())
15
16 # Calculate the currentHour, currentMinute and currentSecond
17 # from currentTimeInSeconds using Python's numeric operators
18
19 | INSERT YOUR CODE HERE.
20 # Get current hour based on given time(in seconds)
21 currentHour= (currentTimeInSeconds%(24*60*60))//(60*60)
22 #Get current minute based on given time
23 currentMinute= (currentTimeInSeconds%(24*60*60)-currentHour*60*60)//60
24 # Get current second based on given time
25 currentSecond=currentTimeInSeconds%(24*3600)-currentHour*3600-currentMinute*60
26 #print(currentHour, currentMinute, currentSecond)
27
28 if currentHour>12:
29     currentHour=currentHour-12
30     print("Current Time is", currentHour, ":", currentMinute, ":", currentSecond, "PM")
31 else:
32 # Print current time
33     print("Current time is ", currentHour, ":", currentMinute, ":", currentSecond, "AM")
34
35

```

Variable explorer

Name	Type	Size	Value
currentHour	int	1	2
currentMinute	int	1	11
currentSecond	int	1	31
currentTimeInSeconds	int	1	1506175891

Variable explorer File explorer Help

IPython console

Console 1/A

```

In [19]: runfile('C:/Users/milin/
Registered_Courses_2017_Summer&Fall/
Registered_Courses_2017_Fall/Practice of Computer
Program/calculateTime.py', wdir='C:/Users/milin/
Registered_Courses_2017_Summer&Fall/
Registered_Courses_2017_Fall/Practice of Computer
Program')
Current Time is 2 : 11 : 31 PM

In [20]:

```

Python console History log IPython console

Permissions: RW End-of-lines: CRLF Encoding: ASCII Line: 19 Column: 1 Memory: 80 %

6. Submit this document and the calculateTime.py to Blackboard for grading.