Assignments

Tutorial 1 – Python Object Orientation and Python Standard Library - Returned

Honor Pledge Accepted
In progress
Submitted
Returned

Title	Tutorial 1 – Python Object Orientation and Python Standard Library
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Submitted Date	05 Mar 2018 10:48 AM
Grade	**89.00 (max 100.00)**

Instructions

CSC1011H Tutorial 1 – Python Object Orientation and Python Standard Library

Instructions

Question 1 [20 marks]

Write a *Patient* class which inherits from the *Person* class, download here. The *Patient* class requires the following:

- a variable to store the patient ID number for the patient (unique for each patient)
- a variable to store the patient's address
- a variable to store the number of visits to the clinic
- a constructor method, which initialises the variables
- a method to calculate the total medical fees owed, based on the standard fee (R200) per visit
- a string conversion method

Question 2 [20 marks]

Write a *Doctor* class which inherits from the *Person* class. The *Doctor* class requires the following:

- a variable to store the doctor ID number for the doctor (unique for each doctor)
- a variable to store the doctor’s address
- a constructor method, which initialises the variables
- a string conversion method

Question 3 [22 marks]

Write an *Appointment* class, which requires the following:

- a variable to store the patient ID number
- a variable to store the doctor ID number
- a variable to store the full timestamp of when the appointment is
- a variable to store a memo, i.e. description of what happened at the appointment
- a string conversion method

Question 4 [18 marks]

Create a program saved in Clinic.py. Your program should be menu-based and should have the following:

- datastructures to store the patients, doctors and appointments

- options to add a patient, doctor or appointment
- options to display all the patients, doctors or appointments
- options to search for and display all the appointments for a particular patient or doctor
- or quit.

Question 5 [18 marks]

Modify your program so that it uses “pickling” to save all the patients, doctors and appointments in files. Use this so that when the clinic program is run it reads in these files, so that the information is available, and when the user quits it saves the information to a “pickled” file. Hint: Watch the following video for a quick introduction to pickling: Python 3 Tutorial_ 25 - Pickles.mp4 .

Hint: To work with timestamps and pickled files you’ll have to use the Python Standard Library.

Due: 11h00, Monday 5 March 2018

Submit: Submit all the files necessary using Vula. Do not zip them.

Marking Guide

Question 1	18
Question 2	16
Question 3	16
Question 4	16
Question 5	24
General style, use of comments and formatting code	10
Total	100

Note

1. Each part of your tutorial which doesn't compile will be marked out of half of the marks allocated to it.
2. Late submissions and incorrect files will not be accepted. Please ensure that your tutorial is submitted before the time it is due and check that it is zipped correctly.
3. Every submission must be your own work. Plagiarism(copying) is considered very seriously, and students who are involved in copying will get zero.
4. If you require an extension on medical or compassionate grounds, or have a valid reason for a late submission, this can only be approved by the lecturer, and not your tutor.

Additional resources for assignment

No attachments yet

Submitted Attachments