

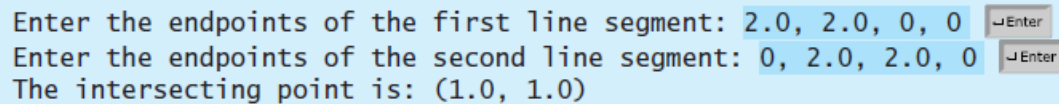
CS3110- User Interfaces

Lab Assignment 2

Classes in Python

Task 1

(Geometry: intersection) Suppose two line segments intersect. The two endpoints for the first line segment are (x_1, y_1) and (x_2, y_2) and for the second line segment are (x_3, y_3) and (x_4, y_4) . Write a program that prompts the user to enter these four endpoints and displays the intersecting point.



```
Enter the endpoints of the first line segment: 2.0, 2.0, 0, 0  Enter
Enter the endpoints of the second line segment: 0, 2.0, 2.0, 0  Enter
The intersecting point is: (1.0, 1.0)
```

Task 2

(5)

(The Time class) Design a class named Time. The class contains:

- The private data fields hour, minute, and second that represent a time.
- A constructor that constructs a Time object that initializes hour, minute, and second using the current time.
- The get methods for the data fields hour, minute, and second, respectively.
- A method named setTime(elapseTime) that sets a new time for the object using the elapsed time in seconds. For example, if the elapsed time is 555550 seconds, the hour is 10, the minute is 19, and the second is 12.

Write a test program that creates a Time object and displays its hour, minute, and second. Your program then prompts the user to enter an elapsed time, sets its elapsed time in the Time object, and displays its hour, minute, and second.

Current time is 12:41:6

Enter the elapsed time: 55550505

The hour:minute:second for the elapsed time is 22:41:45