CS 101 Homework #19

OOP (catching up)

Deadline: 3/7/2020, 9:00 pm. Save your code as lastname_homework19.py and submit on Edmodo. Please, run your code before submitting. If you get an error, try to fix it before submitting your homework. If you get help from anyone, please, make sure that you actually understand the solution.

(All tasks are very similar to Tasks 1-4 from the previous homework, which we also covered in class. Everyone should be able to complete them).

Task 1 (creating a class, instance initialization __init__, instance attributes)

Create a class NPC (non-player character) with three attributes: unique ID, number of coins, and a string variable describing what the character has in his/her bag (e.g., a "health potion"). All of these attributes are user arguments.

Task 2 (instance method printing information about the instance attributes)

Add a basic introduction: NPC should describe their ID, wealth, and bag content.

Task 3 (class attributes; using class attributes to update instance attributes)

Add two *class* attributes: (1) time, which is a string that can be either "day" or "night", and (2) attitude, which is either "friendly" or "hostile" depending on the time (let's assume friendly during the day and hostile during night). For the initial values, you can assume "day" and "friendly".

Change the basic introduction above (from Task 2) such that NPC provides a proper introduction only if "friendly" but refuses to do this if "hostile".

Task 4 (class method updating class attributes)

Implement a *class* method (not to be confused with an instance method) to change the time to either "day" or "night". The method should accept a string argument from the user, "day" or "night" AND update the attitudes as described in Task 3.

Manually create three NPC characters and place them in a list. Make each NPC introduce themselves.

Then tun the class method above to change time to "night" (which should also change the attitude to "hostile"). Verify that this time NPC will not introduce themselves and instead will display an angry message.