CS 1301 – Video Game

Due: Friday February 27th, before 11:55pm

This is a pair programming assignment!

You are expected to work with the person you have been pared with in class, and you are **both** responsible for submitting the exact same code to T-Square. Follow good pair-programming practices by working together at a single computer and switching the driver/navigator role frequently.

Your pair may collaborate with other students in this class. Collaboration means talking through problems, assisting with debugging, explaining a concept, etc. You should not exchange code or write code for other pairs. Collaboration at a reasonable level will not result in substantially similar code.

For pair programming assignments, you and your partner should turn in identical assignments.

Files to submit: hw5.py
**   instructions.txt**

For help:
-TA Helpdesk – Schedule posted on class website
-Email TAs
-Piazza

Notes:

- **Don't forget to include the required comments and collaboration statement (as outlined on the course syllabus)**

- **Do not wait until the last minute** to do this assignment in case you run into problems.

If you find a significant error in the homework assignment, please let a TA know immediately.

For this assignment, we will be letting you explore your creativity! By now, you've learned almost all the concepts you need to create a simple video game, so lets put your skills to the test. You will be responsible for writing a simple (again, SIMPLE) game that MUST contain the following components:

- Graphics (Or something reactive on a Window)

    o We would like to see you create something that responds through sprites, images, or anything that utilizes the Calico Graphis window

- Scoring System

    o In your game, you need some way of knowing who is "winning" or has the highest score

    o There should also be space dedicated in your game window to view the high(est) score(s)

- Saving/Loading

    o Your game should be able to save data and load it back in.

        ▪ For example, the game should be able to save/load the high score list from a text file each time it is started/ended.

- User Interaction

    o A player should be able to interact with your game though either or both a MOUSE CLICK or KEY PRESS.

- This is not exclusive. If you want to develop a game that combines both of these methods, go ahead!

How do I start?

In lecture, you have learned the concepts needed to implement keyboard use, use of the Window, Mouse Click, etc. Refer to the sample code, keyBallsCalico.py, if you have any questions on how these concepts are put together to make a working game.

Another excellent guide would be the Calico Graphics Reference Manual. This manual contains a description of every function present in the Graphics Module. You should visit the reference manual to learn more about how to draw shapes, capture mouse clicks, learn about key presses, or anything pertaining to the Graphics Module

Hint: For Save/Load, using a file to save data and then reading from that same file to load the data may be a good approach.

What to turn in?

We will be looking for **two** files, a hw5.py file, which contains the code for your game, and an instructions.txt, which contains a walk through of how your game works and how we should "play" it. Please add any addition information that we may need to know about your game in this file.

Pro Tip: This game is meant to be simple. Do not forget that you only have a set amount of time to complete this assignment; so trying to remake League of Legends in a week may not be practical. Keep It SIMPLE, very SIMPLE! You are graded on if it works, not how insanely awesome it is!

Rubric

Gameplay	**60**
Elements on the screen move without need of user interaction	25
User Interaction influences the game in some way	25
Game is playable (Doesn't crash when run)	10
Save/Load Scores	**30**
Game has some concept of scoring	10
Game has a concept of saving	10
Game has a concept of loading	10
Instruction	**10**
The instructions clearly explain how the game works	10