Lab 8: Exploring Classes

Learning Objective(s): After today’s lab, you will have a stronger understanding of…
- Classes and what methods and attributes a class might want to have

Material(s):
- You will be required to use the internet for searching for images, but you will not need to write any code. (Unless you want to!).

Submission:
- There will be no submission for today’s lab.

Lab Objective(s): Here are the steps (in order) that you will need to take for today’s lab.

1. As you walk into class, your TA should have asked you for a number between 1-15. This class/object is 1 of the 2 classes you will need to create for today’s lab.
2. You and your partner need to spend 3 minutes to figure out 2-4 topics that interest you. (i.e. sports, video games, etc). Note: You do not need to have matching interests. Write them down!
3. After choosing your topics of interest, you will need to then select 1 of the topics that you feel you can write a class for.
4. Once a topic is chosen for the class, find 2 images (1 for the class picked out at the start of lab, and 1 for the “interest” class) through a simple Google search to help illustrate each of the classes. (Be sure to write down the Google search you used to find your images!).
5. After the images have been chosen, you are then required to have a minimum of 3 actions (methods) and 3 properties (attributes) for each class. (Try to have an image that can match these properties and/or images, if possible).
6. When you have finished the above objectives for each class, call one of the TAs over and you will then be required to explain in detail one or both of your classes. To earn the extra credit, you will be asked to explain what the most significant attribute and method is for your class. They may also ask if you would like to partake in the bonus extra credit opportunity (explained in 7). (TA Note: If eligible for the bonus, to help speed things up here, while checking them off, ask for the word search used to find the image, then have it in a tab on your computer that is projected on screen)

7. **BONUS** extra credit. This particular extra credit is worth 0.5 points. To be eligible for this extra credit opportunity, you need to create a class that is exceptionally done and is judged by one of the TAs. This includes having multiple attributes and methods associated with your class that is meaningful (That means having more than the minimum. A lot more! And they need to be meaningful!). When the TA checks you off in step 6, and if you have a super amazing awesome class, you will be asked to demonstrate it to the classroom. You are not required to do so though! You will have roughly 2 minutes to explain your work. Here is what you will be asked to do:
   a. Load up your image (or go to the already loaded tab on your TAs PC).
   b. Explain the attributes and actions you created. (Have your partner write them down as you are explaining if you’d like).
   c. Explain the most significant attribute and action for your specific class.
   d. How it would be used in a program or what type of program would you create.

**Timing Example:**
Before Class: Grab a small piece of paper that has an object on there.
8:00 - 8:05 Quiz
8:05 - 8:08 Find the 2-4 topics of interests where you can write a class for.
8:08 - 8:35 Do the body of the lab. Call TAs over when finished.
8:35 - 8:50 Presentations of the classes.

**Note:** Notice that there are 15 minutes of class left to do the presentation and to earn the bonus extra credit which means that not everyone will be eligible for the bonus.

**Grading Rubric:**
- 0 Points: Did not show up / do anything.
- 1 Point: Has 1 class fully created (with an image)
- 2 Points: Has 2 classes fully created (with two images, one for each)
● 3 Points: Was able to articulate their class and explain the most significant attribute and method.
● 3.50 Points: Does all of the above and presents to the class.