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CS-172

Problem Definition: For this project we will be first creating our own “language” that will be implemented into a text file which will be saved and used as an instructional guideline for a set of tasks that our program will carry out. Next we will code a program that reads in text files, more specifically the text file we created earlier with our new language. After reading in the file, a ball and dog are put into a coordinate grid system where the instructions are carried out as actions for each.

Requirements: For this project to work, it relies heavily on Object-Oriented programing where everything is divided into classes based on characteristics and actions. Also, another important tool being utilized is the use of file I/O, which allows us to read in our main instructional text file, and then carry out the tasks being prompted.

Results: This program's overall goal is to read in instructions and move the dog and ball based on those specified instructions.

Specifications: Classes that are implemented in this project include:

* GameController
* Screen
* Actor

\* Dog

\* Ball

Each class, in descending order, is dependent on the previous class. So for inheritance the “Actor” class take the properties such as get x and y locations for both the dog and ball. Then the screen controls all the actors within the program, and the GameController oversees everything, controlling the screen and its update function, which gets the locations of everything per movement. All of the movements have been categorized by actor in their own movement functions such as “up, down, left, right…” and are called when the initiator word “move” is found. Then the object being moved and the movement are determined by the following words.