

Project name: Game Objects

Objective: Define classes to support the development of a game application (*not* part of this course!).

Specifications: Create a class for a `GameObject`, which will be the base class for two derived classes, `Character` and `Collectible`. The private member variables of the classes are given below.

Each `GameObject` will have:

- a label (string)
- a maximumInstances (unsigned int)

Each `Character` will have:

- a name (string)
- a health (unsigned int)
- a superPower (string)

Each `Collectible` will have:

- a name (string)
- a strength (int)

There should be an explicit default constructor for each class that sets default values for the private member variables of each class (only) and an overloaded constructor that allows the user to set values for all member variables (of the derived class *and* the base class). Include accessor and mutator functions for all private member variables.

Write a driver file that tests all constructors and functions. Your driver file should declare at least 2 instances of each class (so you can use all of the constructors), gets values from the user to change all member variables, and displays all values to the screen. Be sure you make your user interface professional and easy to read!