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Final Report

In project 2, I decided to create a pet game. In the pet game’s program, I created four classes. The first being the pet class, an abstract parent class that has 5 protected variables: type, name, happiness, hunger, and tiredness. Its public functions are eat(), play(), rest(), happyThresh(), hungerThresh(), tiredThresh(), saveData(), loadData(), and draw(). The eat, play, and rest functions are the actions of the pet while the “Thresh” functions are used to test if a pet’s hunger, happiness, and tiredness statuses have reached a certain point. The save and load data functions are used to save/load the pet’s data into or out of a file. The draw() function is a pure virtual function that all derived classes of the pet class must have. The monkey class is a derived class of the pet class and shares all of the pet class’s variables and functions while having three more functions unique to its own such as hang(), swing(), and eatBanana(). The bird class is a derived class of the pet class and shares all of the pet class’s variables and functions while having three more functions unique to its own such as fly, eatFish(), and nestle(). The dog class is a derived class of the pet class and shares all of the pet class’s variables and functions while having three more functions unique to its own such as fetch(), eatMeat(), and sitAndBark(). When I originally started this project and wrote the preliminary report, I planned to have a class called cat instead of bird. Anyways, after the classes were completed, I went to create the main menu of the game, which gave the user four options to choose from such as whether to create a pet, save a pet, load a pet, or leave the game. I then created another menu for when the user decides to create a pet called the pet menu which the user chooses what type of pet to create. Lastly, I created one more menu that allows the user to control its pet with the functions of that type of pet’s class. Whatever action the user chooses on the pet, the pet will act it out through an ascii picture. I did plan originally for the program to show the user an actual picture of the pet doing an action but I didn’t know to do it and I felt it took too long to write that code in so I just stuck with using an ascii picture. That’s about it for my program.

Link of video: [PetGame.mp4](https://uofh-my.sharepoint.com/:v:/g/personal/bkbui_cougarnet_uh_edu/EQsdAdnK1ihDtjQH1c--WowBcSMOsZsf7WyAdDWEtVQeGQ?e=OA5Daf)