

Written justification for your design and an explanation of what makes it extensible.

The way that I have used to approach this design was Hierarchical Inheritance. This class allows one class to acquire the properties of another class. The super/parent class in my case was Pet and the rest were the subclasses. I have also used the keyword super in my code in order to access data and methods from the Parent Class, because the super keyword can be used at variable, method and constructor level. The advantages that this gave me was to minimize the amount of duplicate code and also it kept my code more organized in a smaller and simpler unit. My program is extensible due to the fact that one can easily create a new subclass by simply extending it to the superclass. Finally one can also implement more variables to describe each pet in the Parent Class.