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CTEC135

Programming Assignment3: Prob 1

Naming Scheme:

My abstract base class is “character”

The two child classes of “character are “Human” and “Elf” for tier 2 of the hierarchy.

Below that are the grandchild classes of “Warrior”, “Thief”, “Mage” and “Hunter”. These make up tier 3 of the hierarchy.

After adding the class diagram to a project, here are the steps I used to create the class hierarchy:

1: click on the “toolbox” link. I found it easiest to then click the little “push pin” icon to lock it into place.

2: Click, hold, and drag the abstract class icon from the toolbox to the diagram, then release and name it.

3: click, hold and drag a “class” icon from the toolbox to the screen, release and name it.

4: repeat for the desired number of classes.

5: in the toolbox, click on “inheritance”, then click on a class and connect the line that pops up to the class that you want inheritance from.

6: repeat the last step for all the classes that you want to inherit from, creating the class hierarchy.

The abstract keyword is used in the base class to create a class that cannot be instantiated. It needs to have a generic method defined for the class. Nothing is really known about the class yet. The child class below it will have more details about what exactly it will be. They can “override” the “virtual” methods set in the abstract class.

The diagram tool also does some pre-coding for you. Any methods, properties, and or fields in the base class are set up automatically and are ready to have your own code inserted. Visual Studio adds the format for you so you don’t forget the required lines. This is helpful, especially when starting out.