

6.1P Question 4

There are multiple errors in this program that prevents the code from running.

For example, when calling the `greeting()` function, the function must start with a capital letter, similar to the `Greeting` method used in the `animal` class.

Another error is seen through the code `Animal animal4 = new Animal();` in which the code calls for a new object under the `animal` class, which is not allowed as instances cannot be created from abstract classes.

`"Dog dog3 = (Dog)animal3;"` is also an invalid code as the variable `animal3` has already been allocated to `BigDog`.

The same thing applies to `"Cat cat2 = (Cat)animal2;"` as `animal2` is already assigned to `Dog`

The last errors involves calling the wrong parameters when calling the `Greeting` method, for example: `dog2.greeting(bigDog2);`, `bigDog2.greeting(dog2);` and `bigDog2.greeting(bigDog1);` all have different parameters. Although the parameters don't change much (the output depends on whether there is an input or not, specific parameter names won't change anything), it is best to allocate the correct parameter name for each function.

This is the output of the fixed code:

Cat: Meow!

Dog: Woof!

BigDog: Woow!

Cat: Meow!

Dog: Woof!

BigDog: Woow!

Dog: Wooooooooooooof!

Wooooooooowwww!

Wooooooooowwww!

As you can see, the outputs of each animal is based off each subclass of `animal`.