Write classes and interfaces to represent the following:

* Adoptable
* Amphibian
* Animal
* Bat
* Dog
* Fish
* Frog
* Flyable
* Goldfish
* Mammal
* WaterLiveable
* Whale

You need to decide on the structure. Consider:

* Which should be an abstract class?
* Which should be an interface?
* How should the classes be related through inheritance?
* In what classes should methods be placed?
* What methods should be overridden?

Some additional details/requirements:

* All animals have a name.
* All classes have a toString method that returns the animal's name.
* All animals have a method "isWarmBlooded" that returns a boolean.
* Animals that can be adopted as pets have a method "getHomecareInstructions" that return a description of how to care for the animal.
* Animals that can live underwater have a method "canLiveOnLand" that returns a boolean of whether the animal can also live on land.
* Animals that can fly have a method "getFlightSpeed" that returns the average miles per hour that the animal can fly.

This assignment isn't necessarily difficult from a programming perspective. What you should spend time on instead is carefully considering the design of you classes and how they should be related through inheritance or interfaces. To get full credit:

* Your class hierarchy should make sense. (You can assume common knowledge or "googleable" facts about animals- you won't be graded on your biology knowledge!)
* Place common code as high up in the hierarchy as possible.
* Declare classes that should not be instantiated as abstract.
* In abstract classes, methods that must be implemented by all subclasses should be declared abstract.
* Remember that classes can only have one parent but can implement multiple interfaces.

I have included a test file you can use to test your code. Note that this file might not contain all possibilities you want to test! You can edit this file to add more tests if necessary.

Submit a zip file containing 12 java files. Include your name in the name of the zip file.