## **Tutorial 14: Polymorphism**

This tutorial should be completed before the next lecture.

# Task 1: Pet shop revisited



You are required to modify your pet shop application from the previous tutorial so that polymorphism is used.

Instead of storing the pets in separate variables, use an array. Read through the lecture material, and examine the example code given in L20.zip on blackboard. Make sure you understand Ploymorphism before attempting this task. Ask your tutor if you are unsure.

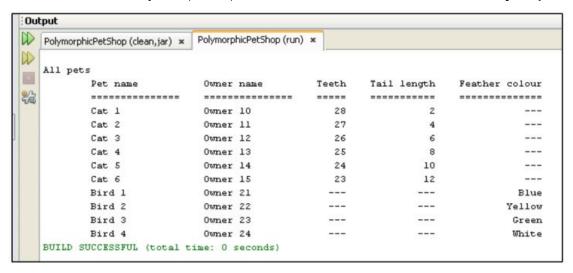
#### **Step 1: Copy the NetBeans project**

Create a folder called T14. Copy your PetShop project folder from your T13 folder, and paste it into your T14 folder, and rename it PolymorphicPetShop. In NetBeans, open the project, and rename it as PolymorphicPetShop.

#### Step 2: Modify the PetShopApplication class

Add a method called printPetDetails() method, which outputs to the console window the contents of the pets array in a tabulated format, similar to the illustration below. The pets array must be passed to the method as a parameter .Use the instanceof operator as shown in the main() method, InheritanceApplication class, Person\_Inheritance\_3 project from the lecture (Found in L20.zip on Blackboard)

The main() method should create six Cat objects and four Budgie objects, storing them all in the pets array, and then call the printPetDetails() method, passing the pets array as the parameter.



#### **Step 3: Test your program**

Run your program, and take a screen shot. Make sure your pet names are not the same as the illustration above.

### Portfolio requirements:

- All your .java source code files from steps 1 and 2
- An image file (.jpg, .gif, or .png) of your screen shot from step 3 with pet names different from the illustration above