A picture containing clipart

Description generated with very high confidence

**PROGRAMMING II (STIA 1123)**

**SEMESTER II, 2019/2020**

**INDIVIDUAL WORK**

TOPIC OF THE REPORT:

Quiz 2

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Question

1. What will be the output when running the above code?

It will compile an error.

**Exception in thread "main" java.lang.RuntimeException: Uncompilable source code - Erroneous tree type: Animal**

**at Lab1Stage1.main(Lab1Stage1.java:3)**

**C:\Users\thebestp9\AppData\Local\NetBeans\Cache\11.3\executor-snippets\run.xml:111: The following error occurred while executing this line:**

**C:\Users\thebestp9\AppData\Local\NetBeans\Cache\11.3\executor-snippets\run.xml:68: Java returned: 1**

1. What is meant by polymorphism?

Polymorphism is related with inheritance, and the word means “many forms”. Polymorphism has the ability to be displayed in more than one form.

1. How does polymorphism work in the above program?

introduceYourself() can be called with different parameters from 3 different classes, which are Animal,Cat and Dog.

1. The method introduceYourself of Animal appears to be never called? Why not?

Because the method introduceYourself() in class Dog and Cat will override the Animal class.

1. Comment out the method introduceYourself in Dog. What happens now when you run the program?

The output of the program will be:

Meow. I am a cat. My name is Kurre

Morr. I am an animal.

Meow. I am a cat. My name is Bamse

1. Where is the name stored for the instances of Cat and Dog? (In what / which classes did you put the instance variable that refers to the name of the animal? Both Cat and Dog, or just in Animal?)

I put both of the class.

1. How does the code in the test program work?

First, it creates an array called allAnimals and it set the size to 3

Second, it will fill the array of Cat and Dog with their name in their respective Constructor

Then, int i initialized to zero

The while loop will call the method introduceYourself() in each element of array. It will add +1 to i.

1. How does an array work?

Array will keep the element that we have implemented according to the size that we want. We can input our element in the array by using variable[index] = “String”.

1. In the above programs we have used a while loop to step through the array and to get information about the animals. But there is a more appropriate loop statement here. What is it?

We can use the for loop.

/\*for(int i = 0 ; i < allAnimals.length ; i++){

allAnimals[i].introduceYourself();

}\*/