A picture containing clipart

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**PROGRAMMING II (STIA 1123)**

**SEMESTER II, 2019/2020**

**INDIVIDUAL WORK**

TOPIC OF THE REPORT:

Quiz 3

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**• What will be printed?**

Meow. I am a cat. My name is Kurre

and I am 6 years old.

Woof. I am a dog. My name is Vilma

and I am 3 years old.

**• Explain how it is that the instance variable age of Animal can be used in Cat and Dog when it is declared in Animal.**

Because Animal is a parent class while Cat and Dog is a child class. The child class can inherits from the parent class.

• **What actually consists an instance of?**

String name for Cat and Dog class

**• And what consists a class of?**

Cat and Dog class

**• What is the difference between a class and an instance?**

A class is a blueprint to create an object. An instance indicates a relationship of an object to its class.

**• Change the declaration of the instance variable age of Animal to a class variable using static, in this way:**

public static int age;

**• What is the result of the output now? Why?**

Meow. I am a cat. My name is Kurre

and I am 3 years old.

Woof. I am a dog. My name is Vilma

and I am 3 years old.

This is because static variable can only access one time only. It shared among other instances in a class.

**• It may happen that you get warnings from the compiler that you should access the variable age via Animal.age, but it should be possible to run the program anyway. Otherwise, change the references to age into Animal.age.**

**• Where is the value of an instance variable stored?**

It will be stored in Heap.

**• Where is the value of a class variable stored?**

It will be stored in Heap also.

**• What refers the variable this to?**

‘this’ is a reference variable that refers to the current object

public Dog (String name){

this.name = name;

}