

Universidad de las Fuerzas Armadas ESPE

Matriz - Sangolquí

Object Oriented Programming



WORKSHOP

NRC:

14575

Estudiante:

Stefany Maricela Díaz Antun

Professor:

Edison Lascano

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```

10
11 author Stefany Díaz, HoneyBadgers, DCCO - ESPE
12
13 ic class Zoo {
14 public static void main(String[] args) {
15     System.out.println("----->POLYMORPHISM by STEFANY DÍAZ");
16     Animal animal = new Animal(id: 0, scientificName: "Platypus", new Date(), cageId: 1);
17     ArrayList<Animal> animals = new ArrayList<>();
18     animals.add(animal);
19     System.out.println("animal--> " + animal);
20     System.out.println("animal type" + animal.getClass());
21
22     animal = new Platypus(poisoness: true, poisonGlands: 0, numberOfMammaryGlands: 0, spine: "spine small", numberOfBones: 0, id: 0, scientificName: "platypus");
23     animals.add(animal);
24     System.out.println("animal--> " + animal);

```

```

Animal{id=0, scientificName=girafus, bornDate=Sat Jan 13 08:10:26 ECT 2024, cageId=0}spine=big spine, numberOfBones=0}numberOfMammaryGlands=0}}
animal typeclass e.p.edu.espe.zoo.model.Giraffe
other giraffeGiraffe{Mammal{Vertebrate{
Animal{id=2, scientificName=Giraffe, bornDate=Thu Feb 01 00:00:00 ECT 3923, cageId=0}spine=long, numberOfBones=206}numberOfMammaryGlands=4}}
Brushing the neck of the giraffe
Giraffe is breastfeeding
Giraffe is brestfeeding its calf number -->1

ZOO ANIMALS
[
Animal{id=0, scientificName=Platypus, bornDate=Sat Jan 13 08:10:26 ECT 2024, cageId=1}, Platypus{Mammal{Vertebrate{
Animal{id=0, scientificName=platypus scientific, bornDate=Sat Jan 13 08:10:26 ECT 2024, cageId=0}spine=spine small, numberOfBones=0}numberOfMammaryGlands=0}}
Animal{id=2, scientificName=Giraffe, bornDate=Thu Feb 01 00:00:00 ECT 3923, cageId=0}spine=long, numberOfBones=206}numberOfMammaryGlands=4}}]
total animals-->3

```

StefanyDíaz

ec.edu.espe.zoo

Zoo

```
+register(animal : Animal)
+register(food : Food)
+register(cage : Cage)
+register(employee : Employee)
```

ec.edu.espe.model

<<use>>

Animal

```
-id : String
-scientificName : String
-bornDate : Date
-cageId : int
+feed()
+computeAgeInMonths() : int
+assignCage(cageId : int)
```

Vertebrate

```
-spine : String
-numerOfBones : int
```

Mammals

```
-numberOfMammaryGland : int
+breastfeed() : void
```

Invertebrate

Snake

Jellyfish

Worm

Platypus

```
-poisoness : boolean
-poisonGlands : int
```

Giraffe

```
+breastfeed()
+breastfeed(int call)
```

Pig

```
+breastfeed(piglets : ArrayList<piglets>)
```

0..12

Piglet

12..14

Breast