Féidearthachtaí as Cuimse
Infinite Possibilities
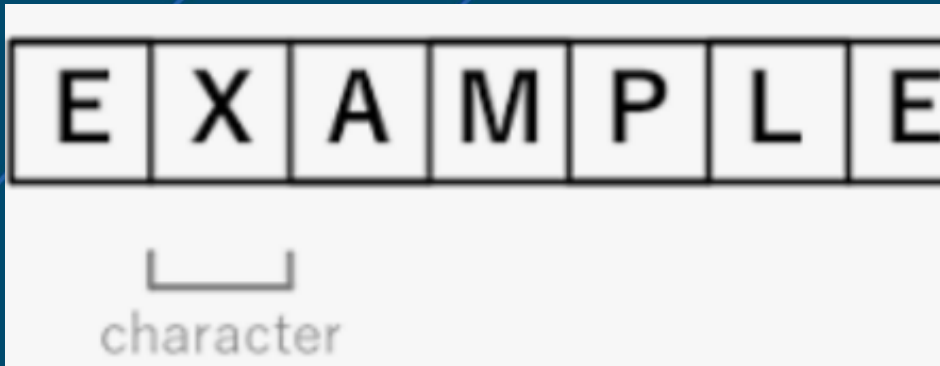
Tutorial W3

Object Oriented programming

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Class Demo

Step 1

Create a new class called Pet. Give it the following class members:

3 attributes in your Pet class - (1) name of the pet, (2) type (3) whether the pet is trained or not.

 Ad**d a constructor in your Pet class** that sets up all 3 attributes.

Add a toString() method in your Pet class

As we did last week in the lab, add a toString() method to your class that returns a String that contains the object data in a readable way e.g. "This pet is called spot, is a retriever and it is true that spot is trained"

Step 2

- Make attributes privates

- Add getters and setters

Step 3

- Create a Main method

- Create another java class (call it Control) and put a main method in it. In this "main" method, instantiate a Pet object (e.g. an untrained labrador called .. whatever).

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Step 4

In your Pet class, add a method called makeNoise();

Public void makeNoise()

{

}

Step 5

- In it, just print out a noise… put in an if condition to do this. If the type is a dog, print out "bark", if it's a cat, "miaow" , else "not making any noise".

Step 6

- Add some gatekeeping

Answer – Code available on BrightSpace – Person

```java
public void setName(String inputName) {

if (inputName == null || inputName.isEmpty()) {

System.out.println("Invalid name. Please try again.");

return; // don't change the instance variable

} else {

String inputName1 = inputName.trim();

String firstLetter = inputName1.substring(0, 1).toUpperCase();

String rest = inputName1.substring(1).toLowerCase();

m_fname = firstLetter + rest;

}}
```

```java
Person p = new Person();

p.setName("");          // prints
"Invalid name. Please try again."

System.out.println(p.getName());
// null (still unset)


p.setName("mARY");

System.out.println(p.getName());
// Mary
```