Programação Avançada 2013/2014

INSPECTOR

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Grupo nº 9

Inspector's Operations

- Inspect an object's properties
- Inspect a field of an object
- Modify object's fields
- Call methods from an object
- Return to the previously inspected object (Back)

Inspect an object's properties

- Using some of the functions of the class Class we show the object's:
  - Name;
  - Superclass hierarchy;
  - Implemented interfaces;
  - Fields;
  - Method declaration.

Inspect an object's properties

- Shows the superclass's methods that are inherited but not overriden in the subclass;

- Shows the fields of the superclass that are inherited but aren't shadowed.

Inspect a field of an object

- This operation shows the related field:
  - Mofidiers
  - Type
  - Name
  - Value

  It can also show the fields' values that the superclass contains and aren't shadowed.

Modify object's fields

- Allows the user to modify the field's value contained in the object;

- Also, it allows to modify superclass fields' values that aren't shadowed.

Call Methods from an Object

* Identify the methods with the same name and the same number of parameters requested by the user;

* Identify, parameter by parameter if it's a String, a char, a Character, an int or an Integer;

* Calls all methods until one of them is succesfully called.

It also considers the superclass methods that are not overriden by the current object's class.

Back

* Allows the user to go back to the previously inspected object;
* Usage: b;
* Implemented with a stack that saves the current state of the inspector;
* When a method that returns a value is called or a field is inspected, it pushes the current state before changing the object;
* When calling b, the previous state is restored and the object properties are printed.

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