Java Inspector

Programação Avançada
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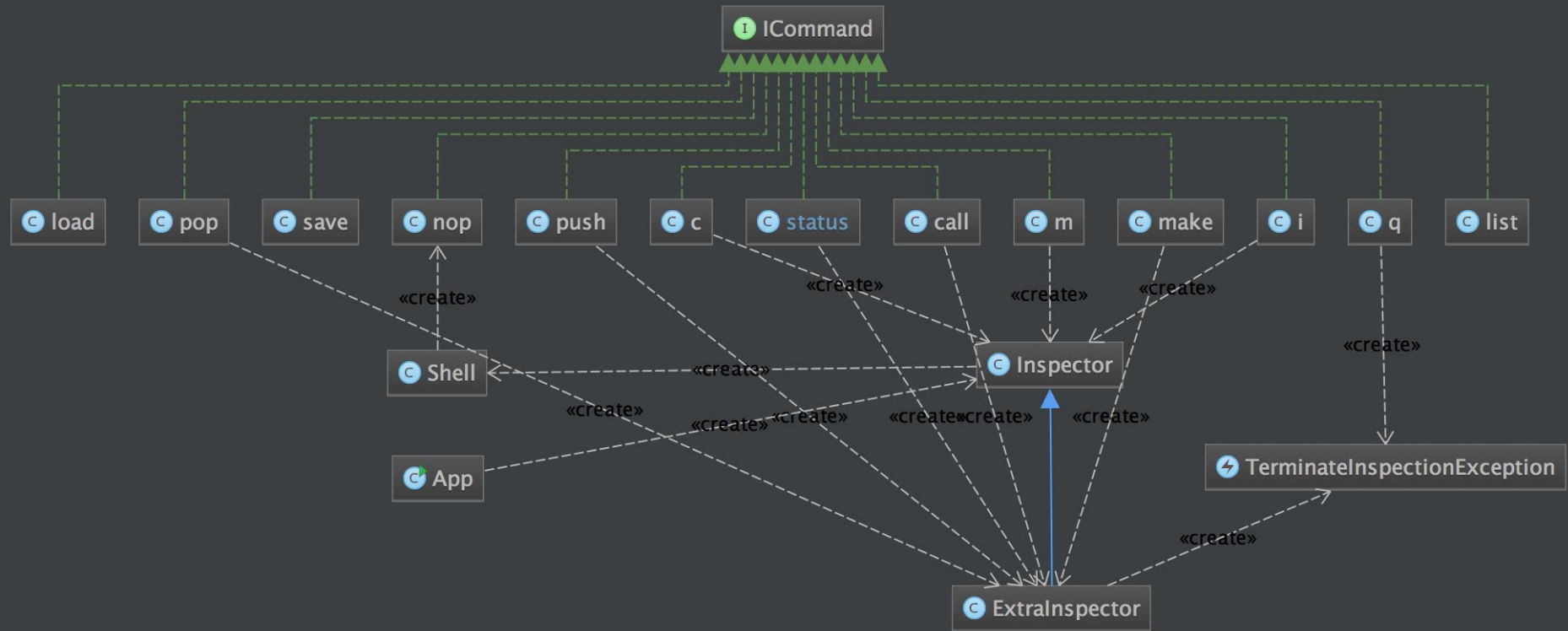
Inspector

ⓜ inspect(Object)	void
ⓜ printClassInfo(Object)	void
ⓜ printClassName(Object)	void
ⓜ printFields(Object)	void
ⓜ getAllFields(Object)	HashMap<String, Field>
ⓜ inspectField(String, Object)	void
ⓜ modifyField(String, String, Object)	void
ⓜ invokeMethod(Object, String, String[])	void
ⓜ isPrimitiveType(Class)	boolean

ICommand

ⓜ execute(Shell)	void

ExtraInspector

ⓕ history	Stack<Object>
ⓜ pushHistory(Object)	void
ⓜ popHistory()	void
ⓜ printHistoryStatus()	void
ⓜ getInstance(Shell, String, String[])	Object
ⓜ invokeByName(Object, String, Class<?>[], Object[])	void
ⓜ invokeTypedMethod(Shell, Object, String, String[])	void
ⓜ prepareArgs(Shell, String[], Class<?>[], Object[])	void
ⓜ parseArgType(Shell, String, String)	Class<?>
ⓜ parseArgVal(Shell, String, String)	Object
ⓜ getTypeByName(Shell, String, String)	Class<?>

Shell

ⓕ objects	TreeMap<String, Object>
ⓜ Shell(Object)	
ⓜ putObject(String, Object)	void
ⓜ getObject(String)	Object
ⓜ printObjectsStatus()	void
ⓜ run()	void
ⓜ getCommandForName(String, Object[])	ICommand
ⓜ printAvailableCommands()	void
ⓜ listClassFiles(String)	File[]
ⓜ getClassesFromFiles(File[])	List<Class>
ⓟ latestObject	Object

Overview

Command Pattern

```
> list
c:      calls method
call:   calls method with typed arguments
i:      opens a shell to inspect a field
list:   lists available commands
load:   loads stored object to current shell
m:      modifies field value
make:   creates a new instance
modify: modifies a field with the typed value
nop:    does nothing
pop:    restores stashed context
push:   stash the current context
q:      terminates current shell
save:   saves current object
status: displays the status of current shell and inspector
```

Implemented Commands

```
> make me.a.Sandwich Boolean:true
> call serve int:2,str:bacon
method name: serve
Serve 2 bacon sandwiches
> call indexOf str:2
method name: indexOf
7
```

extra feature: typed invocations

```
> make java.lang.String str:This is a string
> save stringObject
...
> load stringObject
> call toString
method name: toString
This is an object
```

extra feature: make, save, load

```
> status
Inspecting a.X@74341960
a.X@74341960 is an instance of class a.X
----------
private long john_silver = 7
----------
> modify john_silver 42
a.X@74341960 is an instance of class a.X
----------
private long john_silver = 42
```

extra feature: modify

```
> status
Inspecting a.Y@74341960
a.Y@74341960 is an instance of class a.Y
----------
public class a.C c1 = a.C@7ca3d4cf
public class Graphics ex = null
----------
Stashed contexts:
a.C@7ca3d4cf
----------
Saved objects:
myObj -> a.B@defb836
myPrecious -> a.C@4ac4aad3
```

a.C@7ca3d4cf

extra feature: push, pop, status

```
> status
Inspecting a.Y@74341960
a.Y@74341960 is an instance of class a.Y
----------
private int eger = 2
private int X.eger = 1
----------

...
> i eger
2
> i X.eger
1
```

extra feature: shadowed fields

Questions?