

Object-Oriented Concurrent Programming Practical Classes Guide

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Practice Script 1

Summary:

- Object-Oriented Programming.

Exercise 1.1

The file `practice-01.zip` contains some simple class supporting graphics drawing using `SWING` library. Use these classes to construct a drawing program that includes the following geometric shapes: rectangle, square, triangle and circle (drawing operations can be found at `Graphics` class documentation). Take into account that each picture occupies a given position (x and y) in space (board).

Exercise 1.2

Add a composite figure. A composite figure is a figure which contains a list any other figures (which may even include other composite figures).

Exercise 1.3

Extend the previous program so that it can read the figures to draw from one (or several) text files. Devise a solution to this problem that eases the inclusion of new figures.

The syntax of the description of the figures can be the following:

```
square 10 20 5 10 // square: top-left (x,y) position: (10,20), width: 5, height: 10
circle 30 30 15 // circle: center (x,y) position: (10,20), radius: 15
begin compose // composite figure
... // list of figures
end compose
...
```

In the resolution of this exercise use object-oriented techniques to abstract as much as possible the problem of recognizing the textual description of each figure, and their respective instantiation.

