

SENG 271 - Assignment 2

Goal: Learn about additional design patterns and their use in framework-based software engineering.

The following assignment is to be performed individually.

Task

Design Patterns have been instrumental for framework-based software engineering. JHotdraw is a Java framework for creating structured drawing editors and document-oriented applications. Information on JHotdraw is available on <http://www.randelshofer.ch/oop/jhotdraw/Documentation/> and the source code can be downloaded from sourceforge.

Many papers have been published on the JHotdraw framework. Do some self-driven research on the framework and get an overview on how to use it to build concrete drawing editors. Identify three uses of design patterns in the JHotdraw architecture. These could be design patterns we discussed in class (such as the Decorator) or design patterns that haven't been introduced in class. In the latter case, please read up on them using available Web resources.

1. Create a document that identifies and describes each of these three design pattern uses in JHotdraw. Use a class diagram as well as an interaction diagram to accompany your description and show how it is used.
2. Create a simple example editor that illustrates the use of the three design patterns.

Submission

Submit your assignment in form of a zip archive to the Moodle Web site by June 21. (No other archiver please.) The zip archive should contain:

- A single document (in MS Word or PDF format - no other format please) containing your models, including a textual description of these models.
- The Java program code for your demo editor, along with a README text file on how to compile and run the program from the command line. (Please do not provide instructions on how to do this with an IDE.)

Evaluation

marginal (C and lower)	solid, but could be improved (B)	meets expectations (A)	exceeds expectations (A+)
major parts of the description, UML models or demo code is missing	<ul style="list-style-type: none">•Description of design pattern uses shows some understanding of patterns•UML models have some weaknesses but illustrate the patterns•Demo code has some problems or is incomplete	<ul style="list-style-type: none">•Description of design pattern uses shows deep understanding of patterns•UML models are mostly correct•Demo code works and mostly illustrates the pattern usage	<ul style="list-style-type: none">•Description of design pattern uses shows deep understanding of <u>complex</u> patterns•UML models are correct•Demo code works and illustrates well the pattern usage