

Assignment on Library Analysis

Software Engineering 1

Overview

You are required to do some requirements capture and object-oriented analysis for a library software system. You are also expected to provide some simple Java code fragments to show how the main application classes relate to one another. Not looking for executable code, just some skeleton code.

The assignment could involve 2 iterations: first simple modelling for borrowing/returning etc without considering how to handle reservations. The second iteration, if you can, could take reservations into account. It is important here to be clear what you mean by a reservation. So be sure to supply a precise use-case for it. You can realise or model any use-case you consider appropriate.

You ought to explore several diagrams first with pen and paper to clarify your understanding, and only then draw using the CASE tool, ArgoUML in this case. (CASE = Computer Aided Software Engineering) Also, it might be better to have two ArgoUML files, one with diagrams for iteration 1, the other for iteration 2.

Comments

Your model ought to have:

- Two activity diagrams, the one I gave you plus another
- One or more use-case diagrams and many use-case descriptions, i.e. step by step description of main scenario in each use-case and of a significant alternative scenario also
- Two class diagrams, one showing first iteration e.g. without taking reservations into account, the second one showing how reservations can be fitted in
- Two sequence diagrams for each iteration of a use-case realisation
- Two statecharts for each iteration, one for book and one for copy of a book

All these should be copied and pasted into a Word document named [SE1 Report.docx](#). Save this as a PDF also and upload the PDF and not the Word doc. Many marks will be awarded for a well structured and readable document.

Marking

The assignment work will be marked by the lab assistant who will look in detail at your assignment report on Webcourses.

Report to be submitted on Webcourses + ArgoUML files + any Java code

The quality of the report is very important. Throwing together any old diagrams won't suffice. The report should include screen shots of your diagrams copied and pasted into Word. The report should be structured with headings of your own devising. There should be an introduction describing the problem domain and what you are setting out to do, followed by a detailed requirements section and then possibly 2 sections on the analysis model, one for each iteration. All diagrams are to be accompanied with some explanatory text. Comment on any decisions you had to make during the analysis and how it affected your understanding of the requirements.