Homework 6
50 Points
Assigned   26NO01
Due   07DE01

- All work is completed individually.
- All diagrams must be drawn using Visio.
- Homework set is 1 page.
- Point distribution is described for each problem.

Dataflow Diagram

1. A. (10 points) Use the Software:Rumbaugh OMT stencil package from Visio 2000 to draw the dataflow diagram for the amusement park ride from homework 1, problem 2. Include level 0 (context diagram), level 1, and one level 2 DFD. The operator and rider are actors in the level 0 DFD. Note that you should not include any sources or sinks of data in the subdiagrams.

    B. (5 points) Give a textual description of the solution from problem 1A.

2. (10 points) Use the Software:Data Flow Model Diagram stencil package from Visio 2000 to draw the dataflow diagram for the amusement park ride. Include the same diagrams as those included in problem 1A. Note that this model includes all sources and sinks of data in subdiagrams.

Research Article

3. (15 pts) Find an article (minimum five pages in length) related to a 'catastrophic' software engineering failure. Some possible topics are the Denver Airport baggage handling system or Therac-25. Write a two-page critique of the article answering the question: 'Would application of appropriate Object-Oriented Software Development (particularly UML) minimized or eliminated the potential for the failure?' Please include all references for the topic researched.

Final Exam Question

4. (10 pts) Complete this problem on a separate sheet of paper. Formulate a question for the final exam. The question must have two properties: appropriate clarity and appropriate complexity. Clarity means that the description adequately explains the problem. Complexity means that the problem reflects the correct level of difficulty for a senior level, four-credit class at the University of Michigan. The set of all problems will be returned ungraded to the students as a study guide for the final exam. Up to three questions from the study guide may be included in the final exam.