Project – Design

In this part, you describe the system in enough detail, and in a technical enough way, that someone can program it, demonstrate its correctness, reuse its components, and maintain it. As in the requirements, the structure, function, inter-relationships, and data are described. Here, though, it is not important that the client or user be able to read the documents. These are the "blueprints" that professionals use to create the system. It is assumed that UML will be employed wherever relevant.

What to include:

- (25 pts.) System structure, including
    - * (5 pts.) Context model
    - * (5 pts.) System architectural style (a pattern may be included if appropriate)
    - * (15 pts.) Data model – ER diagram / Data dictionary

- (45 pts.) System control, including
    - * (15 pts.) Functional model – Data flow diagrams (up to 2nd level DFDs)
    - * (15 pts.) Behavioral model – State diagrams / Sequence diagrams (one per use case)
    - * (15 pts.) Class diagram (classes for program control and behavior only) and specifications of methods/functions, including pre/post conditions

- (20 pts.) Secondary, partially-functional prototypes, with significantly improved functionality than in the requirements phase (screen shots).
- Description of any of the above models, as necessary.

Additional points

- (5 pts.) Overall magnitude and complexity.
- (5 pts.) The design document should be submitted as a professional-looking report. Please include a table of contents and proofread the report.
- (20 individual pts.) Include a section, which briefly describes each team member's individual contribution in this phase. This could be in the form of timesheets listing activities, date and time or more descriptive. (Note: this information is requested only for course administration purposes. It is not part of a design document.)