HW2 (team): Requirements

In this homework, your team will produce requirements for your assigned project.

You must turn in a PDF document containing the following parts:

- Requirements definition
  - English descriptions of functional requirements and non-functional requirements in terms of the environment (approx. 1 page)
  - Structured descriptions of the most important 3 use cases (approx. 3 pages)
  - UML class diagram or ERD showing the important entities (and their attributes) in the environment where the system will execute (approx. 1 page)
- Requirements specification
  - English descriptions of functional requirements and non-functional requirements in terms of the system's interfaces (approx. 1 page)
  - Dataflow diagram showing how the system relates to entities in the environment (approx. 1 page)
  - Message sequence charts, or state charts, for the most important 3 use cases (approx. 3 pages)
- In one sentence, briefly summarize whether your customer was willing and able to meet with you during class. If your customer cannot meet with you, then you are free to proceed on the basis of the Vision Statement without further customer input on this homework.
- Briefly summarize the contribution of each of your team members.

Some comments

Typically, the requirements definition would also describe the rationale for the system, but you don't need to include that here, because the customer already wrote up the rationale in a Vision Statement.

Your work will be graded based on whether the requirements appear to satisfy the criteria discussed in Section 4.4. The page estimates above total approximately 10 pages, but you may turn in up to 15 pages at your discretion.

You can divide this work however you like among your team, but here is a suggested approach that would complete the assignment very efficiently...

- Day 1, meet as an entire team with the customer to ask questions about aspects of the Vision Statement that puzzle you.
- Day 2, three team members each write up one use case. Send these results by email to the rest of the team.
- Day 3, two team members meet to read the use cases. Together, identify the key entities in the environment. Then, one person draws the UML class diagram (or ERD) while the other person draws the dataflow diagram. Send these results by email to the rest of the team.
- Day 3 (simultaneously), the first three team members each write up a sequence or state chart for their respective use case. They email the chart to the rest of the team.

- Day 4, two team members meet to read all the earlier results. Together, they write the English descriptions, which they email to the entire team.
- Day 5, one team member edits all of the documents together so that they are consistent.

The reason for emailing all materials to the entire team is that everybody on the team will be graded on the entire assignment. Therefore, all of you need to keep your eyes on what your teammates are doing and act as quality control. If you don't like something that you see, give each other constructive suggestions. Also, if somebody on your team does a particularly good job, tell him or her!! The happiness and productivity of your team is your responsibility.

Copyright (c) Christopher Scaffidi 2009 All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

Neither the name of Oregon State University nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Modified by Scott D. Fleming <Scott.Fleming@memphis.edu> 2011.