Project: EverGreen Software Requirements Specification (SRS)

Com S/SE 409 & Com S 509, Fall, 2020

Due by 11:59 p.m. Thursday, Oct. 29; turn in on Gradescope as a pdf

409: SRS is 20% of course grade. 509: SRS is 10% of course grade

Reading: Chapter 16 & Appendix A, Appendix C. Chap. 16 describes App. A. App. A is the template for an SRS. App. C describes function point counting.

This is a team assignment. The document will have the names of the team members who participated on it. Those who did not contribute to it should not have their names on it.

Contents of SRS: your SRS should have the following sections. These sections are tagged to the SRS section/subsection numbers in Appendix A of the textbook. See p. 318 of the e-textbook for an outline.

I. ***Project Drivers: (5 pts.)***

1. Purpose of the Project (a) Background and (b) Goals (one sentence).
2. Stakeholders: one-two sentences covering 2a & 2d from Appendix A.

II. ***Project Constraints: (5 pts.)***

3. Mandated Constraints (briefly, as applicable, from pp. 326-331).
4. Naming Conventions & Terminology: if the EverGreen project uses any abbreviations or special terms that developers may not understand, define them here.
5. Relevant Facts & Assumptions, as applicable. For example, note here any assumptions about hardware, Cloud storage, wireless access, etc. Make sure that your Assumptions (5c, p. 333, in App. A) are accurate and up-to-date.

III. Functional Requirements

6. **Scope of the Work** ***(5 pts.)***
(6b only) Context of the Work: Insert your Context Diagram, corrected and updated as needed to be accurate (original was in HW#1). Avoid abbreviations and make sure you input/output arrows are clearly labeled with labels that will be readily understood by the developers.
7. Business Data Model & Data Dictionary. (Skip this; Robyn defers it to the design phase.)
8. **Scope of the Software Product (5 pts.).**
(a) Product boundary. Insert your corrected & updated Product Use Case Diagram (original was in HW#1).
(c) Insert your product-use-case scenarios, corrected and updated as needed (originals were in HW#2)

9. ***Functional Requirements (40 pts.)***
(a) Include an updated & corrected version of the FRs from HW#2 and HW#3, all specified in EARS. Each FR should also have a Fit Criterion/Criteria associated with it if that's needed to make the FR testable.

However, most of your FRs probably will be testable once they're specified in EARS, so won't need Fit Criteria.
(b) Annotate each FR with a unique identifier, the product use case from which it's derived (if applicable), a rationale (if it's not clear why it needs to be a requirement), and a priority (see p. 297 & pp. 309-312). Be sure to provide a key to the prioritization rating used. (You don't need to use what the textbook calls "snowcards").

IV. Nonfunctional Requirements

10-17. Nonfunctional requirements (30 pts.)
(a) Include an updated & corrected version of the NFRs from HW#2 and HW#3, with Fit Criteria associated with those where it is needed (to make each NFR testable). NFRs do not need to use EARS. It's optional whether you divide according to the textbook's types or use another reasonable grouping. Note that EverGreen may not have NFRs from every category.
(b) Annotate NFRs with rationales (as appropriate, i.e., if not clear).

V. ***Project Issues (10 pts.)***
18. **Open issues. (5 pts.)** Use this section to explain any issues/concerns that have not yet been resolved and which you think the person/people who will be implementing these requirements in the future should know about or understand. Your goal is for *the developers who design, code & test from your SRS* to be able to successfully & efficiently produce EverGreen software that meets the needs of the users. To do that, they need you to "get the requirements right" (to paraphrase the subtitle of the textbook).

19-22. Skip. These are important project considerations that merit documentation; however, do not belong in the SRS in my opinion.

23. Risks. Very important, & important to update throughout the life of the project! However, skip it here, as it also does not belong in the SRS.

24. **Costs. (5 pts.)** Use function point counting, as described in Appendix C and our posted lecture on it, to provide an early estimation of the size of the software product. Use the rule of thumb on p. 365 of the textbook and in the posted lecture to calculate the Effort in staff months to build the product, and use Figure C.13 on p. 373 to give the range of uncertainty of your estimate. (Cost doesn't belong in an SRS; however, including it here avoids having an extra 409 homework assignment.

25-27. Skip. Note that Sect. 26 (Waiting Room) would be included if EverGreen were developed using an agile process.