CMSC 447  Software Engineering 1  Fall 2018, Section 3

System Requirements Specification Template

(adapted from Susan Mitchell, Michelle Grasso, Karina Joshi)

**General Instructions**

1. Provide a cover page that includes the document name, product name, customer name, team name, team member names, and the current date.
2. Number the pages of the document.
3. Number and label all figures. Refer to the figures by number in the text.
4. All sections should have an introductory sentence or two.
5. Do not use vague words and phrases such as may, might, could, possibly, should, assumed to be, some, a little, and a lot. Use strong, definite words and phrases such as shall, will, will not, can, and cannot.
6. Watch your spelling, punctuation, and grammar. It is a reflection on your professionalism.

Be sure that your document is

* Complete - No information is missing
* Clear - Every sentence's meaning must be clear to all parties
* Consistent – The writing style and notation is consistent throughout the document and the document does not contradict itself
* Verifiable - All facts stated are verifiable

Remember that you are required to do a peer review of this document.

When you think you are done with the SRS, ask yourself, "Could someone who was not part of the development of this SRS write the corresponding System Design Document?"

Use the materials posted under the Writing Resources button on Blackboard as references for grammar, spelling, punctuation, formatting, and writing style.

[Put product name here]

System Requirements Specification

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# Document Versioning Control

|  |  |  |  |
| --- | --- | --- | --- |
| **Version Number** | **Date** | **Changes from Previous Version** | **Author** |
| 1.0 |  | Original Document |  |

# Introduction

## Purpose of This Document

State the purpose of the document and indicate the intended readership. Briefly summarize the content. [One substantial paragraph]

## References

Provide a list of all applicable and referenced documents and other media (e.g., the Sommerville text, UML references, documents provided by the customer, documents provided by your instructor, websites) that were used in the creation of this document. See the Writing Resources on Blackboard for the appropriate formats for references. For each reference, provide the title, author, publisher (if applicable), date, and URL (for websites).

## Purpose of the Product

This section provides a short description of the user’s work and the situation that triggered the need for the product. It describes the task(s) that the user wants to accomplish with the delivered product. It is the product justification. [One to two substantial paragraphs]

## Product Scope

This section identifies the boundary between the system under development and the outside world. That is, it identifies what will be included in the system and what will not.

Typically, a context diagram best describes the boundary. However, because the systems in this class are small, we will use a combination top-level use case and context diagram. In addition to referring the reader to the diagram, give a brief summary of how it illustrates the system’s scope and its relationships to any external systems. Briefly describe the classes of users (the primary actors) and their relationships to the various system functionalities. Make sure to number the use cases in the diagram. Note: You do not need use cases for logging in or out of the system. [One to two substantial paragraphs].

Use *The Unified Modeling Language(UML): A* reference is *UML Distilled*, by Martin Fowler.

# Functional Requirements

Each functional requirement should be represented using a use case.

Refer the reader to the top-level use case diagram from Section 1.4. In addition, include separate sub-use case diagrams, where appropriate, for each of the top-level use cases.

In addition to the diagrams, every use case should be documented using the use case specification format below. (An empty template can be found on Blackboard.) A suggested format for this section is to begin with a brief introduction of what the section contains, and then alternate sub-use case diagrams with their corresponding use case specifications. Make sure that all use case numbers and names correspond exactly with those in the top-level diagram of Section 1.4. Give all sub-use case diagrams figure numbers and labels (e.g., “Figure 2.1. Administer Exam”).

|  |  |  |
| --- | --- | --- |
| **Number** | Unique use case number | |
| **Name** | Use case name - a short active verb phrase | |
| **Summary** | Brief summary of use case major actions | |
| **Priority** | How critical this use case is to the customer (Scale of 1 to 5, 5 being most critical ) | |
| **Preconditions** | What conditions need to be true before use case “executes”/”trigger” | |
| **Postconditions** | What will be true after the use case successfully “executes”/completes | |
| **Primary Actor(s)** | A role name for the primary actor | |
| **Secondary Actor(s)** | Other systems that are relied upon to accomplish the use case | |
| **Trigger** | The action that causes this use case to begin | |
| **Main Scenario** | Step | Action |
|  | 1 | < steps of the use case from trigger to goal delivery >  This is the “main success scenario” or “happy path.” |
|  | 2 | < … >  Description of steps in successful use case “execution” |
|  | 3 | < … >  This should be in a “system-user-system, etc.” format. |
| **Extensions** | Step | Branching Action |
|  | 1a | < condition causing branching > **:**  < action or name of sub use case >  Alternative paths that the use case may take |
| **Open Issues** | List of issues awaiting decisions that affect the use case and need resolution | |

(This template was adapted from Basic Use Case Template, by Alistair Cockburn, http://members.aol.com/acockburn/papers/uctempla.htm, accessed 1/17/08.)