CS 320
Requirements Specification

Due: **Tuesday, October 4, 2022, 9:00 PM EDT** via [Moodle](#). For this assignment, you must work in your project group. Submit only one assignment per group.

Overview

Congratulations! Your team has been funded to produce the software product outlined in your earlier proposal. The customer hiring you to complete the project is a conglomeration, CSRocks Inc., which includes the executives (Yuriy Brun, Vivien Jamba, and James Nguyen) and upper-level managers (another team of the class), who will meet with you periodically to discuss and evaluate your progress.

Now, you need to define the project, as a basis for your later design and implementation. Your first deliverable is a set of requirements documents (sometimes called "Software Requirements Specification" or SRS). These describe the goals of your project and how users will interact with it (the high-level UI design). You will also document your plans for completing the project.

External requirements

CSRocks Inc. likes what you proposed for your product, but that's only a start. You now have to expand the product, add more features, and make it a serious, 8-person, 10-week project. This will require adding features, subject to the following customer requests:

- The product should be easy to use. It should be usable by people who are not expert computer users.

- The product must be robust against errors that can reasonably be expected to occur, such as invalid user input, lost network connections, etc.

- As before, the product must be a networked (client-server) application.

- The product must be installable by a user, or if the product is a web-based service, the server must have a public URL that others can use to access it. If the product is a stand-alone application, you will be expected to provide a reasonable means for others to install and run it. You can expect that the user will have installed any necessary libraries and tools (such as a Java Virtual Machine, or a Ruby framework runtime, or an emulator for a mobile device), but after that, the user should be able to download and run your system easily.

- The product will ultimately be made open source. As a step towards this, the software (all parts, including client and server) should be buildable from source and installable by others, and well documented to enable new developers to make enhancements. Documentation will include design documents, test cases, and bug reports.

- And, again, the scope of the project must be of good size for the resources assigned.

Beyond these requests, you are largely free to take the next turn of the product development spiral and firm up your product requirements. This requirements document will essentially be a contract with CSRocks Inc. for what you plan to deliver. Consequently, you should talk to your customer as you plan in order to make sure your product meets their needs.

Software Requirements Specification (SRS)

An SRS captures requirements of a product. We provide you with a template SRS to get you started.

The main product components to capture in the SRS are:

1. A high-level *description of the product*, along with its scope.

2. A set of *use cases*, including at least one use case summary diagram and two formal use cases of the most important scenarios.

3. A *feature list*, including what features you expect to be available for the α and β releases, as well as the release 1.0. You should also specify a set of *stretch* features that could slip to 2.0 if necessary.

4. A *UI prototype*. At least two diagrams containing rough sketches of your product's user interface.

Follow the directions included in the template SRS regarding specific points for each category.

The SRS will be a living document. You will be asked to provide updates to it at periodic points in the development cycle.

Deliverables

Submit a .pdf of:

1. An SRS document:
   A requirements document based on both the description in this assignment and the SRS template. While some real-life SRSes are hundreds of pages long, given the semester scope of the project and the iterative development process we are taking, **your SRS should be 4–5 pages** (not including the use case and UI diagrams).

2. Customer discussion artifact:
   Records showing that you had at least **two** discussions with your customer about the product. One discussion will be with Vivien Jamba, and James Nguyen, an exec, and another with the upper managers, other class team. The discussions will be, of course, about the product requirements. Example artifacts include meeting minutes, email threads, and paper prototyping. It should be clear how these discussions shaped your requirements. These records can be submitted in hard copy if they are not easily available online.

Submit your deliverables on Moodle by the deadline. The preferred names for these files are: `YourProjectNameSRS.pdf` and `YourProjectNameCustomerArtifacts.pdf`.

Meeting with the upper managers

Another team in the class will act as the upper managers of CSRocks Inc.

For now, the main goal of these upper managers will be to help you brainstorm ideas, features, and product functionality for your product. Use them to you advantage, and make sure you listen to them: they are the customer and they are always right!

You, in turn, will act as their upper manager customer and help them brainstorm ideas, features, and product functionality for their product. Don't go easy on them! Make sure their product is going to be everything it can be, and then some.

You must meet, in person, with your customer team at least once before submitting this assignment. Earlier is better because brainstorming on the last night doesn't work at all. You'll benefit from having all your team members present at this meeting, so do your best to schedule it so everyone can attend.