

## Project Assignment 1: Software Requirements Specification

Out September 14th; Due September 28th

**Congratulations!** Your software development firm has been funded to produce the next iteration of Wright State’s official Checkers game playing client. The university is expecting a highly polished client with novel features to replace the Windows 95 based application it continues to use to this day. Your first deliverable will be a “Software Requirements Specification” or SRS document. An SRS describes the goals of your project, an analysis of its most important software qualities, a description of its functional requirements, and major use-cases.

### Description

An initial meeting with your hired consultant (Dr. Doran) established the customer’s needs in a Checkers game playing client – recall our project overview lecture. Understanding the needs of the client, you will not devise an initial project analysis and requirements specification. Consider further the following implicit environmental and external requirements:

- The product should be easy to use, particularly for those who are not expert computer users.
- **Robustness** is a key software quality: Wright State would like to use this client in regional and state level Checkers competitions, buggy or crashing clients can cost championships.
- The product must be **installable** by a user. 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 a Java VM, but beyond that the user should be able to download and run your client in one click. A novice should be able to install your client.
- Your client must offer a **unique piece of functionality** not mentioned in the requirements. Aspire for it to be a **delightful** feature (refer to Dr. Denning’s essay in homework 2). For example, past projects developed a game playing AI, UI enhancements like a 3D board, an iOS version of the client, or game saving and replaying.
- Along these lines, the project should be written in Java *unless* an alternative language is desirable to implement your unique functionality.

Beyond these additional requirements, you are free to define the specific features and look and feel of your clients however you like. **You should e-mail Derek as you plan to make sure the set of novel functionalities you propose are sufficiently (but not overly) advanced.**

### Deliverable 1: Software Requirements Specification (SRS)

A template SRS document is provided to get you started. It contains four components:

1. A high-level description of the product, its software qualities, and scope.

2. A set of functional requirements for your system, with priority levels and justification.
3. A set of use cases, three of which are specific to the functionality on the server and one that is specific to the novel functionality you are proposing.
4. A UI prototype. Include at least two diagrams containing rough sketches of your client's user interface.

Specific details are offered in the SRS template on Pilot. Follow the font (Arial 12pt) and paragraph (justified) format of the SRS template.

## Deliverable 2: Technology Sanity Check

Also due is evidence that you have been able to install the Checkers game server on your local machine and that your team is able to connect to it with a 'stub' client. You will:

- Write a very simple Java program that can connect to a locally hosted game server and can participate in global lobby chat. Showing the Java console output that demonstrates you sending and receiving messages to the server, and chatting in the lobby, is sufficient.
- Upload the code of this Java program uploaded to a github repository in a directory "Project 1".

## Deliverable 3: Group and Customer Meeting Artifacts

Finally, submit records showing that you had at least one group meeting to discuss the project and the SRS document, and a discussion with Derek about the functionality you would like to include in your Checkers client. Records may include the minutes of a meeting, or e-mail correspondence. Limit your records to two pages.

## Summary

Submit the following as a single hard-copy document **as a single pdf**:

1. **The SRS document.** While real-life SRS documents are hundreds of pages long, yours is limited to 8 - 10 pages. **Adhere to the format in the provided word document.** If you push this into Pages or Google Docs, be sure the format is not lost. SRS diagrams and tables count toward the page limit.
2. **The group and customer discussion artifact.** Note that these records do not count towards the 8 - 10 pages of the SRS document.
3. **Evidence of connecting to the game server with your simple client.** This can be screenshots or simply a dump of your Java console output. Include a link to your github repository in the pdf.