The Project Specification of your semester project focuses on the initial and revised draft of a specification for your proposed project that is organized in a set of three main components that includes:

- **Purpose, Objectives, Goals:** This written document is intended for both designers and developers that contains a number of sections such as: introduction on the purpose, objectives, and goals of the project; a description of the operating environment such as hardware, software, platforms, unique features, limits, requirements, etc.; at least one UML use-case diagrams to show users and their interactions with the high level use cases for the project; user interfaces (mockups of screen shots) at a high level to demonstrate overall functionality, logical databases or other repositories, etc. To provide you with some guidance on this process, the web page contains a document that describes a specification, its content, and its various sections (http://www.engr.uconn.edu/~steve/Cse4939W/specif.pdf) along with an accompanying presentation that will be reviewed in class. At a minimum, it is expected that your specification contains sections for an Introduction, Glossary, Operating Environment, Interfaces (see below), Information, Security, and Performance. A UML use-case in the Introduction will provide a high level view of users and their interactions with the system. A more detailed example may be necessary later in the specification.

- **High-Level Software Architecture Diagram:** A diagrammatic figure that demonstrates the overall system and its components, also explaining hardware, software, technologies, architecture style (e.g., client server, cloud, web app, embedded, etc.). This diagram is often part of the Introduction and/or Operating Environment sections,

- **User-Based Specification:** This primarily consists of rapidly prototyped graphical user interfaces (via Visio, html, etc.) that can serve as the basis for a dialog between the users and developers in order to extract user requirements and detail required functionality and interactions between various components of the system from the GUI perspective. From a documentation perspective, the screens should be labeled figures organized into a logical order to demonstrate the user interface capabilities. Each screen shot should have an accompanying paragraph description to explain its purpose and usage. This is essentially the Interfaces section of your specification.

In writing your first draft of the specification, you are to limit your response to at most 8, single spaced, 12 pt pages, with 1 inch margins on all sides. You also may have up to 10 additional pages if they represent various diagrammatic and functional views of your application, e.g., general system structure, software architecture, screen mockups, etc. A strong requirement for your specification is the utilization of multiple (at least 2) UML use-case diagrams. Do not provide other UML diagrams, ER diagrams, or software design patterns, since those are needed for later phases of your project.

Note, that as a team, you must clearly identify (using first initial and last names) who wrote which sections of the specification. The Introduction and Glossary are to be shared sections done by all
team members. For the Glossary, each team member should place initials next to the terms that s/he defines. The other required sections on: Operating Environment, Interfaces, Information, Performance, and Security, are to be split equally among team members, with each member solely responsible for at least one section. Clearly identify who did which section.

For this project, your team must be sure that you have enough expertise to qualify as both an expert and a "customer" in the area, in addition to your role as a software engineer. Your team should have chosen an application that is sufficiently complex, and would require a significant team effort for developing its solution, starting in this semester, and continuing in the next semester.

There are two deadlines for this project. The initial version of the specification is due at the third class, and the instructor will provide you with feedback and input on the content, approach, etc. Using this as a basis, a revised and expanded version of the specification that has additional detail will be due at the fifth class. The course web page contains an example from a prior semester on the specification, including both student submissions (of initial and revised) along with the instructor’s commented version provided on each.