



Lab 3: SRS Development

1. Key Lab Activities

- Watch the project video
- Determine a team name
- Assign team roles
- Develop an SRS using the Software Requirements Template
- Construct use case scenarios for your software system
- Prioritizing Requirements for Your System

2. Due Dates

Deliverable	Responsible Part	Due Date
Questions for the client	Development Manager	End of lab session
Team Name	Team Leader	End of Lab Session
Complete Draft SRS Document	Development Manager	Wednesday Lab - March 26, 2012 Friday Lab – March 28, 2011

3. Introduction

The definition of project requirements represents one of the most important steps to ensure the successful completion of a software project. In this week's lab session, and in next week's review session, you will be working on the development of your software requirements specification. You will be provided with a template for the document and will be required to complete the document in a manner consistent with the goals of this project.

4. Detailed steps

4.1. Assigning a team name

Each team is to come up with a team name. This name will be used on all future artifacts as a unique identifier. This is one area where you can be totally creative. However, you must also be somewhat professional and appropriate, as this name will be visible to outside entities.¹ The team leader must e-mail the team name to the instructor by the end of lab.

4.2. Choosing your team roles

Amongst your team, you must decide on who will assume the develop roles. These roles are summarized at the end of this document. The team leader must e-mail the role assignments by the end of lab to the instructor.

¹ In the case of an inappropriate team name selection, the instructor reserves the right to modify and / or change team names.



4.3. Developing a software requirements system

During the remainder of the lab session, you will work towards developing a software requirements specification for your Lego Mindstorms project. A template SRS is available on the website which includes certain features and functionality which you need to consider, and a general overview of the system is provided later on in this document.

In developing your requirements, you should first attempt to understand and document your interpretation of the system as described in the video. Once you have done this, you may have a list of questions to ask the customer in order to fully solicit the appropriate system requirements. That is expected. Any questions you have should be sent to your instructor by the end of lab period. Your instructor will then consult with the client and provide answers to your questions in a timely fashion in order that you can continue work on your project.

4.4. Use Case development

The first step is to create a use case diagram showing the use cases within the system. As you create the use case diagram, write a high level use case scenario which provides a brief, one or two sentence summary of the use case scenario. Your final deliverable is not a complete system, but rather, represents the first development cycle for the creation of this system. Thus, for each use case of the system, you should have at least a high level statement describing the use case.

4.5. Prioritization of Use Cases

After you have completed the use case development, you will need to prioritize your use cases. In essence, all team are required to have basic functionality, but the additional use cases need to be prioritized, and the associated required functions need to be prioritized.

4.6. Detailed Use Case Scenarios

For the use cases which are the highest priority, you will need to create detailed use case scenarios. These detailed use case scenarios will include detailed steps and analysis in addition to the high level use case scenario created previously.

5. Lab Deliverables

5.1. Questions for the client

The development manager shall submit a list of questions that need to be clarified to the instructor via e-mail. The instructor will relay these to the client who will then report back with the results.

5.2. Team name and Roles

The name of the team and assigned roles shall be submitted to the instructor via e-mail by the team leader.



5.3. Requirements document

The team leader shall submit to the course website a completed SRS document. This SRS shall be submitted in pdf format, and shall be derived from the original document.

6. Team Roles

There are a number of defined roles for each project team which is at least four in number. Each role will be assigned to one person for each development cycle. (Depending on team size, one or more roles may have an "assistant" or "backup" person, or one role may be split between people.) The roles and corresponding responsibilities are:

Team Leader	Development Manager	Planning/Process Manager	Quality/Test Manager	Support Manager
Maintain process and team discipline.	Lead requirements analysis.	Lead team planning and progress tracking.	Act as inspection and review moderator.	Serve as development environment expert and resource.
Track and report team progress.	Lead design activities.	Ensure that all team members submit effort estimates for each week as well as actual time upon the completion of their efforts.	Track development problems and issues.	Handle configuration management and change control.
Act as team meeting facilitator and timekeeper.	Lead development work.	Handle risk management and contingency planning if the project does not go as planned.	Prepare test plans and coordinate testing.	Ensure the integrity of the software development archive by periodically auditing its state.
Ensure that final, weekly deliverables are submitted on time.	Integrate work from different team members.	Ensure the integrity of the developed Lego Mindstorm Robot.	Ensure that the developed software package is following the proposed requirements.	Maintain the project glossary.
	Serve as CASE tool expert and resource.			Coordinate research activities.

In addition to the specific role responsibilities, all team members contribute to product development and reviews.