

CS 461 - Fall 2016 - Progress Report

Project DevAI

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Abstract

The goal of this project is to create an agent to play the game Starcraft Brood War, a real time strategy game created by Blizzard Entertainment. The solution to the project will be a template that future students can use to develop better solutions than those provided in this project. In this document, we will discuss what we have completed in our project as well as discuss our process and problems we had. The goal of this document is to reflect on our progress as well as make sure we are on time and on task.

I. RECAP OF PROJECTS' PURPOSES AND GOALS

A. Problem statement

In this document, we clarified the exact problem that the client wanted solved. We also discovered how in depth the client wanted our product to cover. Throughout the process we also detailed who we were creating the product for. Using this newly gathered information we were able to come up with specific requirements for our next document as well as give the development team a way to constantly remember what the main purpose of the project is.

B. Requirements document

The requirements document detailed the specifics of what is needed in our program. It also provided a checklist for the development team to follow to know what to include in the program. After the requirements were specified, we then needed to decide on the supplemental technologies we would use in our development process.

C. Technology review

The technology review helped to compare the different technologies that could be used in our development process. Knowing the criteria for the ideal technology, we compared multiple different technologies with a variety of purposes. This helped to establish what environment the development team would be working in as well as informing the team what they would need to be familiar with.

D. Design document

The design document was an opportunity to plan how exactly the technologies that were chosen for the project would be applied. Furthermore, the document will serve as a plan for how we will design our entire code base. It gave us an idea of how we would be organizing, documenting and even presenting with respect to compiling and submitting to competitions. The team will continuously be reviewing this document in the development phase. Hopefully the plans articulated by this document stay consistent with how the project progresses.

II. CURRENT PROGRESS

As of now, the team has chosen the technologies that will be used, how the library modules will be designed, how modules will be categorized as well as documented and each member has chosen specific areas that interest them. During Winter Break the team plans to continue to familiarize ourselves with the BWAPI and begin writing some basic code. At this point, the team has a clear idea of what needs to be developed and can begin exploring in depth what the BWAPI has to offer in those areas.

III. PROBLEMS

The team has run into many unforeseen problems this term. Each of us has had our share of illnesses that has made studying difficult. Also, Kristen's father passed away this week and thus, it has been a rough week trying to complete his work as soon as he can to be home with his family. As for technical problems, due to the nature of some of our project, some of our technologies were chosen for us or simply do not have alternatives that exist so, the team had to come up with some theoretical alternatives. Beyond that, the team has not run into any other technical issues. Lastly, each of us is still itching to get our hands on a copy of Starcraft Brood War from our client so we can begin working with the BWAPI.

IV. RETROSPECTIVE

Positives	Deltas	Actions
Team was well-organized and communicated very well.	N/A	N/A
So far, we have had no issues working on our assignments together.	Need to start our own copies of our development for programming tasks.	Each of use create our own working branch on Github.
We have planned our work out well.	Programming tasks will need to be broken up into chunks and assigned to teammates based on their area of interest and workload.	We will check-in at least weekly to plan out what each member will be working on that week or potentially shorter if we meet more often.
Met with professors often when instructions were unclear or we struggled to understand something.	N/A	N/A
Met with and communicated with client to talk about project goals and expectations.	Ideally, we will meet with our client more often this next term or at least have him review our code to provide guidance in our implementations with respect to overall design and architecture.	We will communicate to our client our desire to have him look at our new progressions on the project every week or two.

In retrospect, the team has worked extremely well together and been prepared for each assignment that we have worked on. When the team has questions, often times, at least one group member went to professor office hours for feedback, guidance

or clarification. The team communication has fluid and everyone has done their fair share of work.