

## JSTanks - Development Plan

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## Revision History

Table 1: Revision History

Date	Developer	Change	Revision
September 29	Jiahao Li	Initial Draft	0
September 29	Pavithran Pathmarajah	Initial Draft	0
September 29	Viren Patel	Initial Draft	0
December 4	Pavithran Pathmarajah	Update Plans	1

## SE 3XA3: Development Plan

Name	MacID
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Pavithran Pathmarajah	pathmap
Viren Patel	patelvh3

### Meeting Plan:

The team has decided to meet twice a week outside of laboratory hours, this means that the team will be meeting 4 times each week. The labs which take place on Monday and Thursday in ITB 236 will be our primary meeting's for the week, where we will be able to update the TA on our group status, and deal with major issues. Then we will have two progress meetings each week, every Wednesday we book a room in Thode Library to hold progress meetings at 5:30pm; during these meetings we will monitor the groups weekly progress in order to gauge our ability to meet our milestones on time. Our final meeting will take place on Sunday evenings virtually through Facebook, where we will delegate weekly tasks for the group members for that week. The team will rotate meeting facilitators, but for the Sunday meetings Pavithran Pathmarajah will be the designated delegator for the duration of the project.

### Team Communication Plan:

The primary means of communication our team will be using throughout this project is a Facebook group chat. The Facebook group will be used for sharing ideas, research, questions and issues that are discovered while working individually. However, the implementation (including programming issues) and documentation will be communicated through GitLab. We are also using google docs as a means to work together on the documents involved in this project.

### Team Member roles:

Pavithran Pathmarajah:	Team Lead
Jiahao Li:	Scribe
Viren Patel:	JS-Specialist

### Git workflow plan:

A good Git Workflow is key to the success of a project and must be determined before all else; our team has decided to go with a simple Git workflow where in we branch off of the master. Using this branch as a central branch we will be

debugging and adding features merging with the master branch upon reaching milestones such as movement, graphics, etc. Merging conflicts with the central branch will be handled by the two members with conflicts working together to ensure neither of their features are affected. In short our workflow will consist of a central branch off of the master, with conflicts resolved as a team.

### **Proof of Concept Demonstration plan:**

The proof of concept demonstration will show that we are capable of completing what we set out to do, we will prove this by overcoming what we believe to be the most difficult task. Since we plan to learn JavaScript throughout the development process we believe that the most difficult task will be to take user input through the browser and into our game. The demo we plan to showcase will consist of a cube which moves around the browser window, with respect to user input, with bounds so that it does not go off screen. We are not deterred with the task of bringing our project to class in order to demonstrate for it is web-based and runs in the browser window. For our proof of concept demo we will open an html file which will run the script for our block with boundaries which will move based on keyboard input.

### **Technology:**

Technology has always been an important part of software development. It is usually composed of four major parts which are the programming language, the integrated development environment, the testing framework and the document generation. For the part of programming language, the plan is to build the structure of the website with HTML and CSS, running JavaScript to complete the part of the game. As for IDE, we decided to use web-storm and notepad++. The reason of choosing web-storm is because of its smart and convenient features which are able to analyze the project to provide the best code auto-completion results with hundreds of built-in inspections. And notepad++ allows working with multiple open files in a single window which is better than the built-in Windows text editor. Pertaining to the testing framework, Qunit is a good choice for JavaScript which is similar to Junit which we have experience with for Java. As for documentation, YUIDoc was chosen because it can be used to document the code clearly and stably.

### **Coding Style:**

Based on coding habits of all members in the group, a unified coding style has been set up. We decided to use K&R style for the placement of the braces in compound statement. For the part of naming variables, camelCase will be used throughout all the code which will make it look uniform, constants will be written in all capital letters. Every class will begin with a capital letter to distinguish them. Functions will end in 'Func' to distinguish them. We also agreed to follow commenting standards to ensure that when looking back at the

code it will still be understandable. Indenting will be mandatory and be one tab for levels of logic to be easily recognizable, for example the code in a loop is indented to identify the code is running within the loop. All global variables will be declared in the top of the document, before any logic/code is implemented.

### **Project Schedule:**

Refer to Gantt chart here

### **Project review (To be filled in: Revision 1):**