SE 3XA3: Software Requirements Specification
Staroids

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Table 1: **Revision History**

Date	Version	Notes
Sept 26	0.1	Added team and project info
Sept 28	0.11	Divided document work
Sept 28	0.12	Added basis of functional requirements
Oct 2	0.13	Added stakeholders
Oct 2	0.135	Added Tasks with link to Gantt Chart

This document describes the requirements for .... The template for the Software Requirements Specification (SRS) is a subset of the Volere template (Robertson and Robertson, 2012). If you make further modifications to the template, you should explicity state what modifications were made.

1 Project Drivers

1.1 The Purpose of the Project

1.2 The Stakeholders

For the development of Staroids, there are some key shareholders that have impact on what decisions are made and and in effect, have sway in the outcome of the project. The stakeholder's primary role is to ensure that Staroids is developed properly and that all teams involved in developemnt are satisfied with the project. The main stakeholder in Staroids are the developers as well as the client and the customer. In the case of the Staroids project, the Staroids team are the developers. The clients of the project are both the original HTML5 Asertoids developer and the Staroid team, and lastly the customer of the project is once again the developers and any online web game players.

1.2.1 The Client

Staroids is developed for the original creator of HTML5 Asteroids with the purpose of using the proper implementation and documentation techniques. The primary concern of the original creator is Staroids' faithfulness to the original as well as the adaptations of any edits that the creator wanted to make but did not get the chance to do. The Staroids team also takes the part of the client because the team very much wants to complete this project for themselves. It offers a chance to program in a language that is new and tackle a problem that the team has not attempted yet. The developer's main concern is that the project has a straightforward implementation method.

1.2.2 The Customers

The customers of the project are the developers again and web game users. The developers are the customers as this project is also being created for their sake as a challenge in JavaScript. As such, the developers concern as a customer is that the project provides an insightful and valuable learning opportunity. Web game players are also clients as they will also consume the project once it has been created. Their concerns are where and how the game will be played and how easy it is to get running on someone's machine.

1.2.3 Other Stakeholders

Some other stakeholders that could impact the project are advertisers and web game companies. Advertisers may look to spreak the availability of the Staroid project to new users, so they require the project to be unique, special or different in some way so that they can advertise to others and bring the Staroids project into the attention of new users. Web game companies may also be stakeholders because they may look to advertise or host Staroids on their web sites. In terms of advertising, they would be similar to the advertisers, but for hosting, the companies will need the project to meet a set of techinal requirements. The web game companies may need the project to be in a certain format, only use generic libraries or be written in a certain manner.

1.3 Mandated Constraints

1.4 Naming Conventions and Terminology

1.5 Relevant Facts and Assumptions

User characteristics should go under assumptions.

2 Functional Requirements

2.1 The Scope of the Work and the Product

2.1.1 The Context of the Work

2.1.2 Work Partitioning

2.1.3 Individual Product Use Cases

2.2 Functional Requirements

- Run on Google Chrome, Mozilla Firefox and Apple Safari browsers.
- The game shall contain pre-game, playing, post-game, and paused states.
- When initially ran, the pre-game screen shall show first.
- On the pre-game screen, if the play button is pressed, the playing screen shall show.
- On the press of the pause button during playing, the pause screen shall show.
- On the press of the pause button while paused, the playing screen shall show again.
- The playing screen shall always display the player character, score and lives.
- Every time the player character is hit by an enemy, the lives shall decrease by one.
- When the fire button is pressed, the player character will fire a projectile.
- If a projectile hits an enemy, the enemy will be removed, that enemy's death action will occur and the score will be incremented.
- If zero lives remain and the player character is hit, the game shall enter the post game screen.

3 Non-functional Requirements

3.1 Look and Feel Requirements

- TODO

3.2 Usability and Humanity Requirements

- TODO

3.3 Performance Requirements

- TODO

3.4 Operational and Environmental Requirements

- TODO

3.5 Maintainability and Support Requirements

- TODO

3.6 Security Requirements

- TODO

3.7 Cultural Requirements

- TODO

3.8 Legal Requirements

- TODO

3.9 Health and Safety Requirements

- TODO

This section is not in the original Volere template, but health and safety are issues that should be considered for every engineering project.

4 Project Issues

4.1 Open Issues

4.2 Off-the-Shelf Solutions

- Existing implementations of Asteroids - Many languages, just in case JavaScript cannot be run - Varying input methods, features and looks

4.3 New Problems

4.4 Tasks

The steps to deliver the project are all covered in the dynamic Gantt chart Gantt Chart that is being used and updated throughout the project. It covers all tasks and deliverables throughout the project with a breakdown of what goes into each as well as who is working on it, plus the amount of their efforts that are going into it. The Development phases of the project are also shown on their and are color coded to easily distinguish the different ones.

4.5 Migration to the New Product

4.6 Risks

4.7 Costs

4.8 User Documentation and Training

4.9 Waiting Room

4.10 Ideas for Solutions

References

David L. Parnas and P.C. Clements. A rational design process: How and why to fake it. *IEEE Transactions on Software Engineering*, 12(2):251–257, February 1986.

James Robertson and Suzanne Robertson. *Volere Requirements Specification Template*. Atlantic Systems Guild Limited, 16 edition, 2012.

5 Appendix

This section has been added to the Volere template. This is where you can place additional information.

5.1 Symbolic Parameters

The definition of the requirements will likely call for SYMBOLIC_CONSTANTS. Their values are defined in this section for easy maintenance.