CS 319 - Object-Oriented Software Engineering

Final Report

Group 2E:

Ferhat Serdar Atalay

Aylin Çakal

Ali Bulut

İsmail Serdar Taşkafa

Submission: 17.03.18

1. Introduction

In this part, details on implementation state, distribution of work and details of systems we are using will be articulated. Regarding implementation, we could not have had much progress with that considering we are one week behind the schedule as a team. However, our team has its demo scheduled at 26th March and thus, we have one more week for implementation. We believe we will make progress during that period of time. Until that time, we are planning to implement basic functionality. That will include main menu, “How To Play” and “Credits” sections, settings menu and settings manager. We will implement the game screen and game logic in the second iteration.

We believe we have made an even distribution of work to all group members. Serdar Taşkafa is working on “How To Play” and “Credits” sections. Aylin Çakal is implementing the menu for settings and the business logic to modify the settings. Realization of main menu is assigned to Serdar Atalay and Ali Bulut is working on Menu interface that all menus in our game will depend on.

During the implementation, all of our group members will use IntelliJ IDEA as the development environment and GitHub. The reasons to use Intellij include easier connection to GitHub, its powerful editor to check for typos and bad practices and its debugger. Jetbrains, the developer company of Intellij is also providing educational licenses for its software. We prefer using GitHub because that makes it enables us to work on the same project simultaneously. Our past experiences in CS102 suggest us not using appropriate version control tools significantly increase number of bugs and the time to develop the project overall.

2. Design Changes

We decided to add 3 classes for making the project more suitable and eliminating some deficiency.

GameFrame: This class will be our fundamental class for providing user a current game view. We realized that while dividing project into parts. We thought that dividing menu frame and game frame will provide better understanding on implementation of software. This class manages places of the game objects on the frame.

LevelPanel: We decided to add this class to provide a visual content to player for selecting level. With this panel users can easily select level of the game. Actually we planned to include this kind of class before but we skipped that part for a moment.

SoundEngine: When we realized that there is no class for managing sounds in the game, we decided to add this class. Purpose of this class is providing sounds for the in game play.

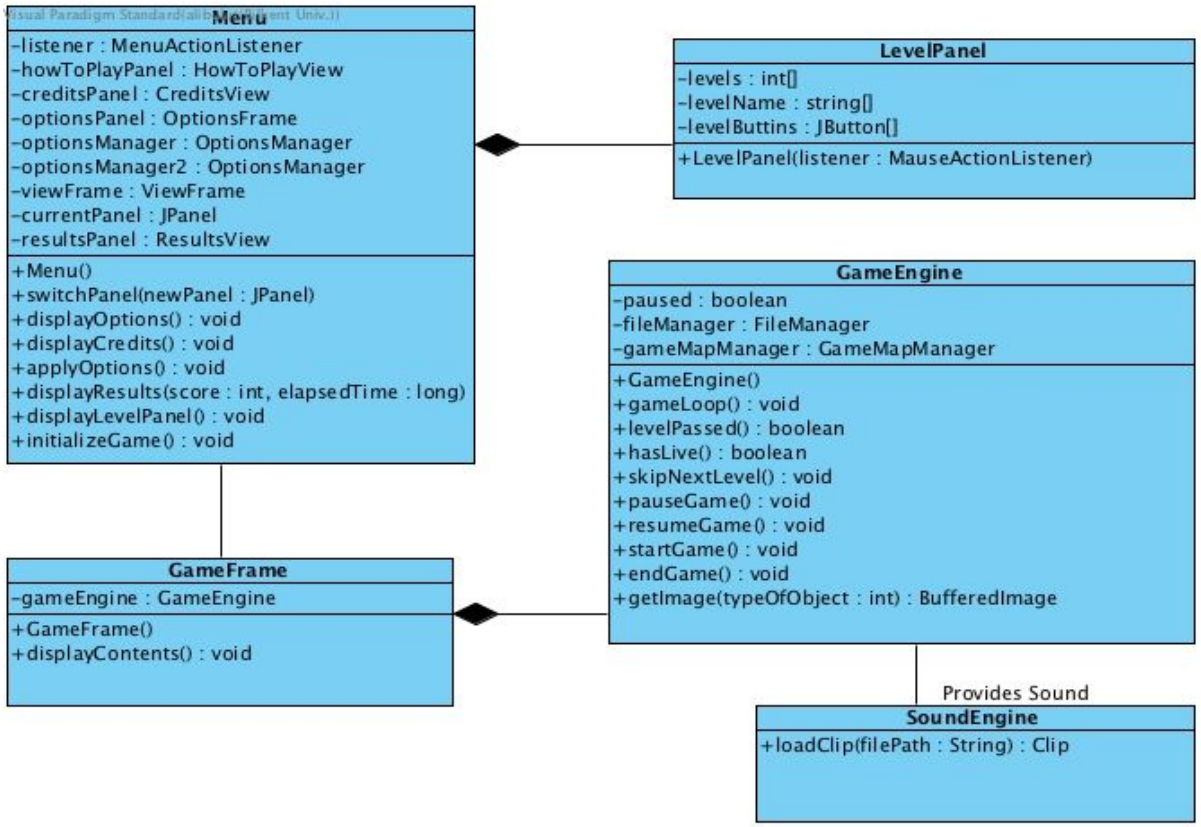

Figure 1: Changes in Design

3. Lessons Learnt

Since we aimed for the collaboration of each member in every stage of the development, planning period had to be done in group. In cases when we were not able to meet in person, we still found it better to have a face-to-face communication via Hangouts video chat.

During the design stage, we had the chance to use a large whiteboard on our second meeting about object classes. This visualisation helped us to see what we have been neglecting and realise where needs to be modified.

In overall process what helped us most is meeting regularly, communicating face-to-face, and having an agenda before meeting. These choices made us move rapidly at the pace we aimed for.

4. User's Guide

For the first iteration of the projects, the features to be done as follows:

4.1 System Requirements & Installation

Since it runs with an executable jar file, Planet Trip will be played without installation.

4.2 How to Use

When the user runs the game, main menu is opened. The user may start the game by clicking Play Game. For the first iteration, the user will not select the level of the game. By Play Game button, game runs automatically. The game is closed by Exit button.

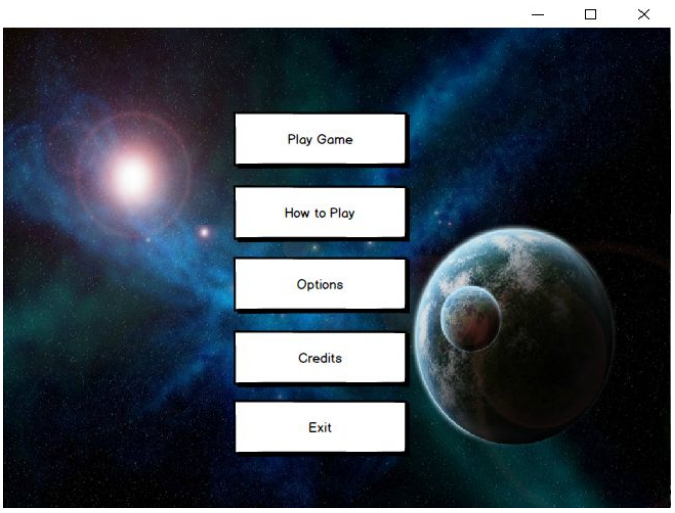

Figure 2: Main Menu

The user learns controls of the game and icons to be used in the game by clicking How to Play button.

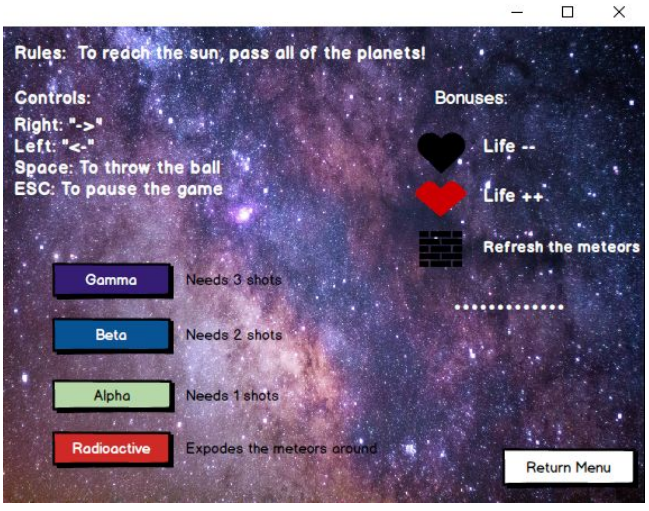

Figure 3 - How to Play

After clicking Play Game button, game is started. For the first iteration, there will be a paddle to show its movement horizontally and some meteors. The paddle will be controlled via using arrows on keyboard.

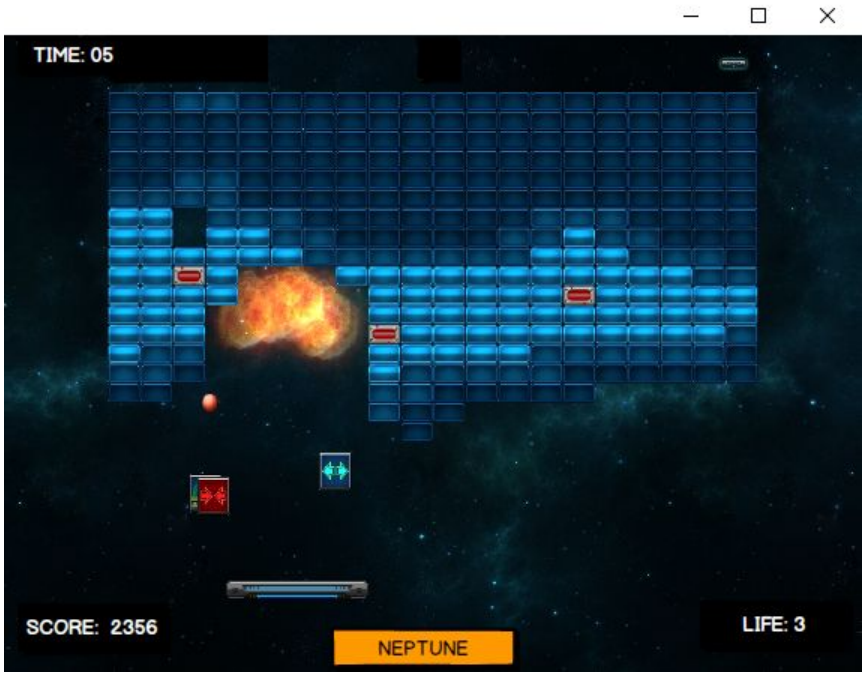

Figure 3 - Game Play

The user can adjust the volume by clicking Options button. By the Apply button, all changes are saved.

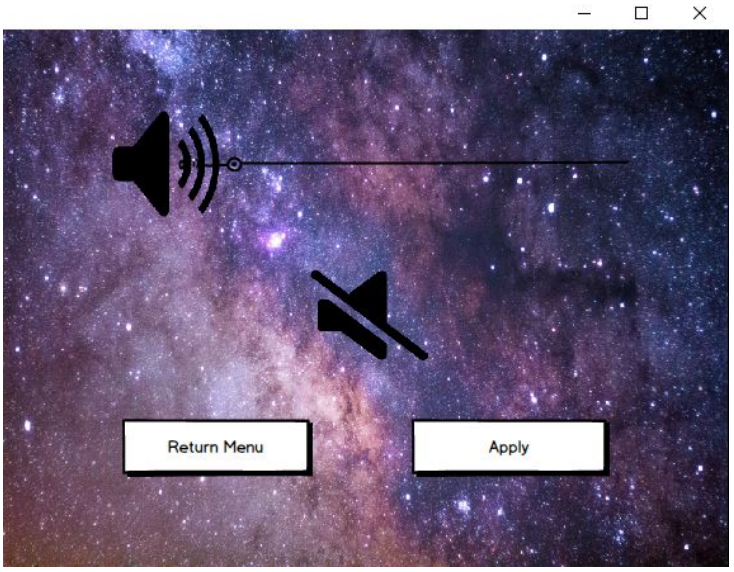

Figure 4 - Options

By the Credits button, the user is informed about the game developers and may return back to the main menu.

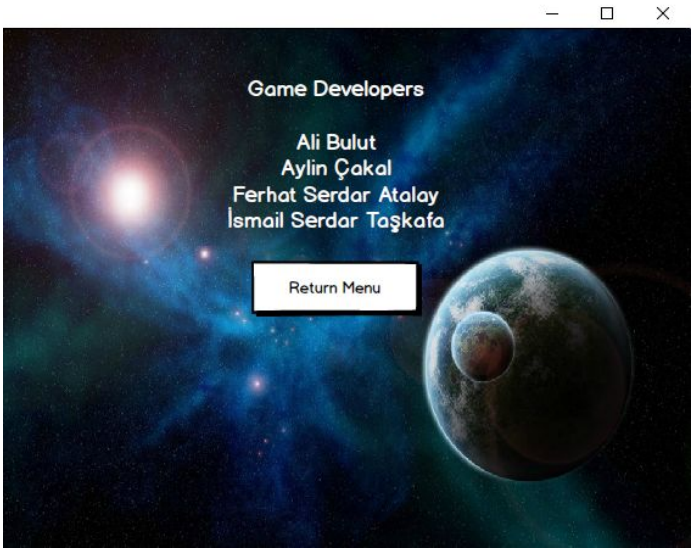

Figure 5 - Credits