Cs 319-Object-Oriented Software Engineering

Fall 2018

Final Report - Iteration 2

Super Katamino

Group 2K / Section 02

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1.Introduction

By 2K group, Super Katamino is almost implemented fully having small changes in terms of some features indicated in analysis and design reports. Changes are mentioned in section 2.

2.Design Changes

We realized that some parts of our game design have flaws. Some of the required object oriented blocks such as classes, methods and some of the essential features were missing.

For instance, we initially did not have a class for each game level. However, during the implementation process, it is revealed that we need a level object to store the number of columns, number of rows and pieces required for the level.

Another one is that we lacked the feature to reset the game board and restore pieces to their original position. Likewise, gameplay testing indicated that this feature was required.

One other change we think to make is that instead of having sound options in settings section, we will display them as buttons in a corner of the screen to increase the usability.

3. Lessons Learnt

Going through analysis and design reports phases, we realized that always some changes need to be done in terms of projects and ideas in minds of engineers. No project continues to its existence as it was in the first place. Step by step; project grows, some

things change. If that's the situation while doing a course project with five engineers, we can only imagine what happens in huge company projects. So now, we understand better, why projects not should but must be conducted in an iterational and systematic way.

4. User's Guide

4.1 System requirements & installation

The game runs on Windows 7 and above. There is no macOS support at the moment. There is no installation required. Game can be launched simply by having the game files and running them. The recommended hardware are;

- Intel Core i3 2100 or equivalent
- 512 MB of ram
- 90 MB of storage

4.2 How to use

Super Katamino is a puzzle game where you try to put given pentaminoes to given rectangular regions in a way that all the given pieces are used and every square of the rectangular area is covered by exactly one piece.

To play the game, first, you need to launch the game by clicking the game icon. Next, you need to enter a level by following the on screen instructions and selecting one of the many levels that are created for the player.
Once you enter the level, you will be presented with a game board and a certain number of pentaminoes around the side of the board. You can drag pentaminoes into the rectangular region where 2 pentaminoes does not intersect. The goal is to fill the region using given pieces.

Upon compilation, player score points based on the difficulty of the level and the time elapsed before being redirected back to the set of levels screen.

5. Work Done

- Sine Mete

  Analysis Report UI section, Design report first 2 sections, final Analysis report, final design report, Main Menu Screen, customized screens, end game implementation
- Mert Özerdem

  Analysis Report first 4 sections, Design report last 2 sections (Subsystem decomposition diagrams, explanations etc), final Object Model - Class diagrams, Play Game implementation
- Hasan Doğan

  Analysis Report Activity diagram section Sequence diagram section, Analysis report final State diagram section, Design report last 2 sections explanations, final report.
- Mustafa Azyoksul

  Non-functional requirements, Play Game implementation
- Umut Balkan

  Analysis Report first draft Class Diagram