

Department of Computing and Networking

Games Degree Year 3

## Second Iteration Report

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**User Stories Implemented**

**Shape shadow user story:**

As a user I want darkened grid segments below the shape and on each side of the viewable grid so that I can place my shapes more efficiently

Conditions of satisfaction:

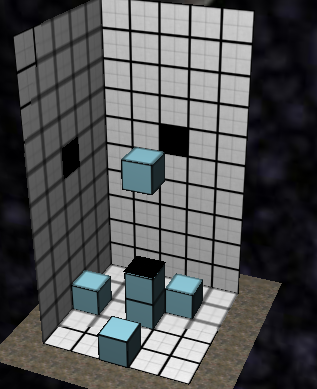
* The shape has a shadow the same size as itself on the bottom grid.
* The shape has a parallel shadow on both of sides of the grid.

Subtask:

As a user I want the shadow to be displayed appropriately on any shapes underneath the current one.

Conditions of satisfaction:

* The shadow is displayed on top of any shapes below it so it doesn’t just disappear when the bottom grid begins to fill up.



**Instant drop user story**

As a user I want to be able to press space and the according shape to be dropped instantly into position.

Conditions of satisfaction:

* When the user presses the spacebar the current shape’s position is instantly set to the grid position directly underneath it.

Subtask:

As a user I want the shape to be instantly dropped on top of any shape underneath it.

Conditions of satisfaction:

* When the spacebar is pressed the current shape’s position will be set to land directly on top of any shape that is underneath it.

**Score User Story:**

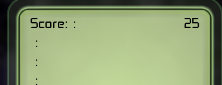
As a user I want to have a score that is displayed on screen and increases when I clear a full grid square.

Conditions of satisfaction:

* The players score is displayed on screen and increases when they clear a full grid square.

Subtask:

As a user I want to earn more points per grid square cleared per level.



**Multiple Shapes User Story:**

As a user I want the game to have more than just one type of shape for me to control and position in the grid.

Conditions of satisfaction:

* There a multiple shapes for the user to place in the grid.

**User Stories Not Implemented**

**Shape speed increase User Story:**

As a user I want the speed of the falling shapes increase per level.

Conditions of satisfaction:

* The shapes speed increases to an appropriate speed per level.

**Level progression user story**: As a user I want the game to have multiple levels which increase the difficulty of the game.

Conditions of satisfaction:

* The game has multiple levels the player can complete by clearing the designated amount of full grid squares per level. For example clearing five grid squares on level one will unlock level two.

**Random shapes user story:**

As a user I want the order the shapes appear on screen to be random.

Conditions of satisfaction:

* The shapes should appear in a random order every time.

**Audio user story**

As a user I want suitable music and sounds to play throughout the game when expected.

Conditions of satisfaction:

* There is appropriate background music.
* Suitable sounds are played when a shape in moved, positioned, instantly dropped.
* A suitable sound is played to alert the player to when the game is over.

**Display next shape user story:**

As a user I want to be able to see what the next shape will be before it is used.

Conditions of satisfaction:

* The next shape to be used is displayed on the screen for the player to see.

# Additional Work Completed

Due to our lack of time management for this sprint we were unable to start any additional user stories or sub tasks for this iteration.

**Work Breakdown**

Aoibhinn:

I started work on the shape shadow user story getting the shadow to appear for each square that fell, I had the shadow appearing underneath the cube and on the two side grids. I also worked on the instant drop function for the cube so that when the spacebar is pressed the current cubes position is set to the grid position directly underneath it.

I also worked on displaying a score on the screen and getting it to increase when a full grid square is cleared.

Darren:

I continued my work on the collision detection for the shapes inside the 3D array, the project will now clear shapes the whole way up the grid. I then began working on making multiple shapes for the project and created a bar shape (three cubes long) I managed to get this working, rotating and colliding appropriately. I Also I helped with the shadows and instant drop functions.

**Reflection**

During this iteration we failed to manage our time properly and fell short on what features we should have had implemented at this stage, with that said we still improved on what we had completed in the previous iteration and improved game play based on the feedback we received from the play testing session (adding in the shadow to help placing the shape, adding in the instant drop function so the grid square could be completed faster.)

What we learned during this iteration:

* We learned how to make an object containing multiple cubes and making it respond appropriately within the 3D array.
* We made an instant drop function that quickly iterates through the 3D array to make shapes drop accordingly into the grid.
* We learned how to make shadows for the shape and get them to display appropriately in the grid and on top of shapes underneath it.
* We also learned that we need to put aside more time to work on project as we did not accomplish what we had initially planned for this iteration.

Declarations of Originality

DECLARATION

I declare that the work I am submitting for assessing by the Institute examiner(s) is entirely my own work, save for any portion(s) thereof where the author or source has been duly referenced and attributed.

I further state that I have read, and am familiar with, the Institute Examination and Assessment Regulations and that I am not, so far as I am aware, in breach of any of these regulations.

Student Name:……………………………….Student ID Number:………………

Course of Study:…………………………………………………………………..

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