

Victoria Swartz

Assignment 3

Git: <https://github.com/ToriSwartz/LuvU>

Project Title: LuvU

Social Justice Issue:

My project will address an often looked over social justice issue of body image. Body image is defined as an individual's mental image of their own body. People with body image issues can't see their outer, or more alarmingly inner beauty. This misconception leads them to mistreat themselves and often sets a precedent where anyone can mistreat them. American society and culture is the cause of this issue as the media continues to promote an unattainable ideal of beauty. Although the issue of body image is often associated with teens studies show that eating disorders for children below the age of 12 have risen 119% from 1999 to 2006. Half of girl ages 9-10 say they feel better about themselves when they are dieting. Today America's children are consuming media through medians like phones like never before. Although these devices are partially to blame for exposing kids to body shaming it can be used benevolently to teach them how to love themselves.

One Sentence Summary:

I want to create an interactive app that allows kids to promote their self-worth through interaction with relatable characters and gameplay.

Option Chosen:

I chose option two. This will be an independent project that I create from scratch.

Implementation:

I will be implementing this as a computer application at first and adapting it to mobile if time allows using the framework [LOVE](#) which is an open source framework you can use to make games in Lua. [Lua](#) is a powerful, fast and lightweight scripting language that supports object oriented programming.

Why mine is different:

There are already body images applications out there, but none address the problem at a young age. Some help people who are already suffering from an eating disorder recover and others target older women with hypnosis or inspirational quotes. My application seeks to do more at a younger age to prevent these kids from becoming insecure teens or adults. I want to build an application that allows kids to make meaningful connection with characters in order to

teach them to love themselves and their bodies regardless of what the media dictates is beautiful. Not only will this be a free application it will be the only one to promote self-image in a fun, healthy manner for kids middle school and below.

Algorithms:

One of the many algorithms I will need to implement is equations for rendering the graphics and applying physics to the characters. I presently plan to create this game on a square grid so algorithms will need to be developed to allow the player to navigate the screen.

Data Structures:

There are various data structures that will likely be used in the development of this game. Arrays can be used to render a fixed 2d grid or specify a path that a character can take. Lists can be used to contain a list of active units. Hashes might be implemented in order to quickly be able to identify a state or an object that is selected, moving, etc. Dictionaries are useful to implement things like finding a unit's data when a collider is clicked.

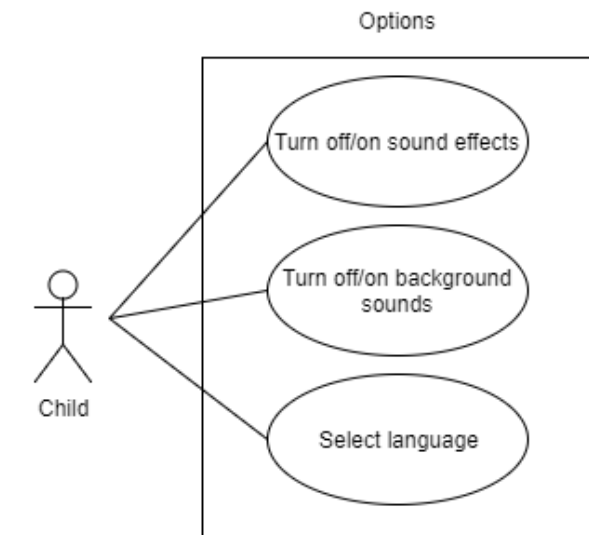
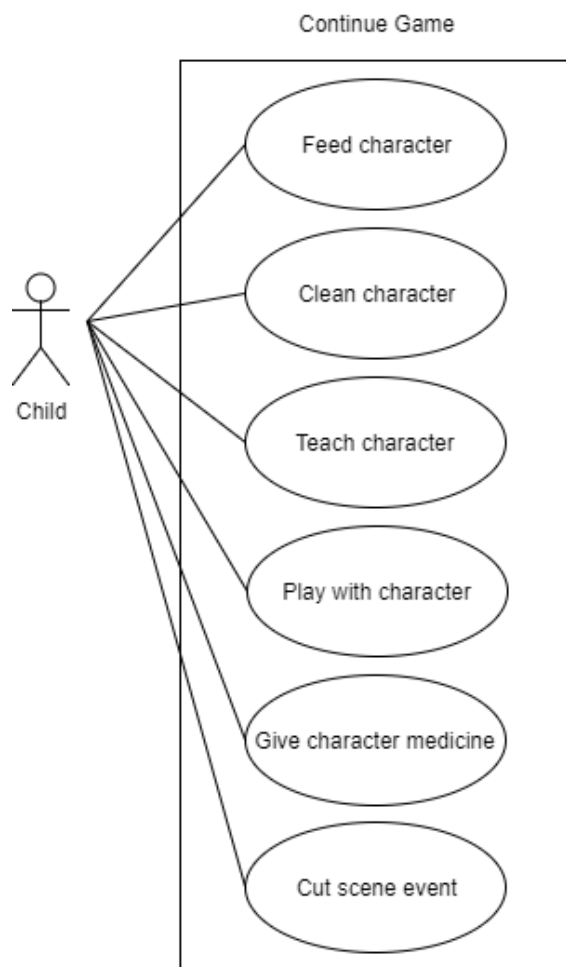
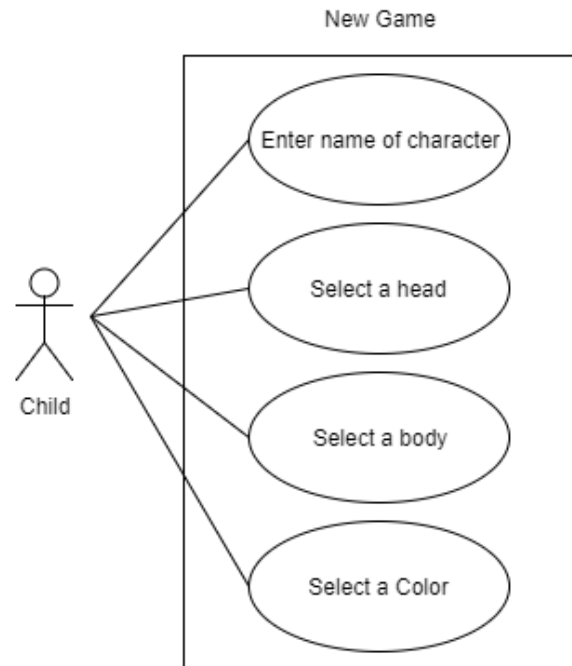
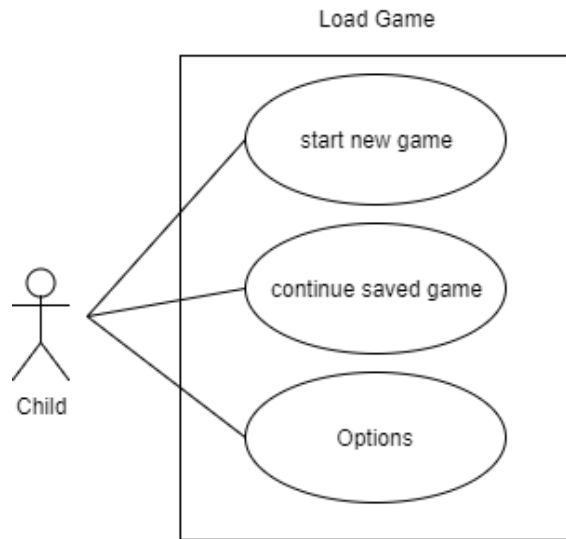
Software Engineering Concepts:

Since this project is in a new language with a framework I have never used before I will be using an Evolutionary model for working on this project. Creating a prototype and adding on to it incrementally as I become more familiar with the framework and language. I have not used this approach in any past projects, so it will be a new learning experience for me.

Learning:

This project will use LOVE's and Lua's documentation and tutorials in order to learn how to utilize them to the best of my ability. Both the framework and the language also have videos and other projects that I can look at in order to gain further insight into how to create my game as well as its limitations.

UML Diagrams:



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For my piece of software I think that the MIT license is best. It allows anyone else to pick up the project where I leave off. Sadly I only have one semester to work on this project and I may only get to implement one or two use cases. If I use the MIT license anyone can be free to add onto any character I have already created without worrying about trademark issues or copyright issues.

References:

Chen, Brian X. "What's the Right Age for a Child to Get a Smartphone?" *The New York Times*, The New York Times, 20 July 2016, www.nytimes.com/2016/07/21/technology/personaltech/whats-the-right-age-to-give-a-child-a-smartphone.html

"Children, Teens, Media, and Body Image | Common Sense Media." *Common Sense Media: Ratings, reviews, and advice*, 21 Jan. 2015, www.commonsensemedia.org/research/children-teens-media-and-body-image.