Project Phase 4 Report

Hidden Squirrel is a game where users play as a squirrel and try to avoid mushrooms and moving bears. The goal is to collect all of the acorns across the map to unlock the exit door. Also on the board, there are bushes where the squirrel can hide from bears that are far away.

In the original plans and designs, we stayed faithful to the idea of the 2D array to represent each cell on the board in the game, and also to the player's and enemies' movement calculations and interactions. Majority of the Use Cases were achieved, except implementing the restart button, as well as increase/decreasing buttons of volume. Most of the UML Class Diagrams had insufficient information, and also were un-modularized, so during the coding phase, many more classes and functions were added.
The final product increased in the amount of classes, from initial diagram of 14, to 32. Most were from creating one class for each screen, and others for creating subclass to contain more specified objects. Instead of moving through options with arrow keys, chose to change to clickable buttons for easy interaction. Throughout the coding phase, new ideas of features were made, such as showing sprite animations, fine-tuning enemy movement, and re-adjusting spawn locations of user and exit door to match missed requirements.
Most important lessons learned was the impact of careful and meaningful planning, as although the plan can deviate throughout the project, a stronger plan will always deviate less, resulting in less effort to re-plan and re-code to implement different idea of requirements and features. Another lesson is to also read through all documentation and fully understand the functions provided, as incorrect use could lead to failures in the code, and resulting in trying to find problems inside the big project codes.

A video was made to demonstrate and introduce the game. A link is shown below for the video:
https://www.youtube.com/watch?v=yg7Jj_8uzi4&ab_channel=sadafahmadi