

Description:

Our game will have a SFU theme, where the player will play as a raccoon scavenging food. The exact details of this theme, like the design of the enemies, will be determined later on in the development process. Upon starting the game the player will be at the main menu and have access to a number of options: selecting a level to start the game, viewing scores of previous game plays, viewing the game credits, and quitting the game. Once the player selects play they will have to select one of the unlocked levels. (the number of levels has yet to be determined). Each level will consist of the player navigating through a maze of barriers while avoiding moving and stationary enemies, these enemies will decrease the player's score if contacted. The player will need to collect a set amount of required rewards (Food) to be able to complete the game. There are also a number of bonus rewards that will disappear when certain conditions are met, for example when an amount of time has elapsed.

In addition to the basic game, if we have time we will implement extra features. We can implement music and sound effects using at least free online sources, options for key rebinding, and extra mechanics and challenge conditions. An idea for extra mechanics is as follows: the player has bombs to use which remove enemies in a certain radius around the player. However, using this bomb will also remove one of the bonus objectives from the level. A bonus score will also be awarded based on how fast the player completed the level. There will be details and balancing to take into account such as whether the bomb should remove bonuses in a random or set-sequence fashion, and if using the bomb should produce direct score punishment and in what contexts. We also need to consider whether this enhanced game should be applied to specific levels or used as the core gameplay model. These features will be implemented into our game if our team has the time after completing all of the base requirements.

Development Process:

The process model that we plan on using is the incremental model. The initial requirements are reasonably well understood, however the full scope is yet to be determined. If our team decides to add on extra features that are beyond the initial requirements, then this can be developed in future increments. Furthermore, the way the project is released in phases lends itself well to the incremental process. Our team can have one or two increments per phase. We will begin each of the remaining phases by communicating, discussing the requirements of the phase and overall timeline. We will utilize pair programming to implement features and branch merging in git to manage each team's progress. Testing will be done intermittently as functionalities are added. Additionally, we will explore the idea of using the issue tracking software Jira to keep track of the tasks and responsibilities assigned to each team member.