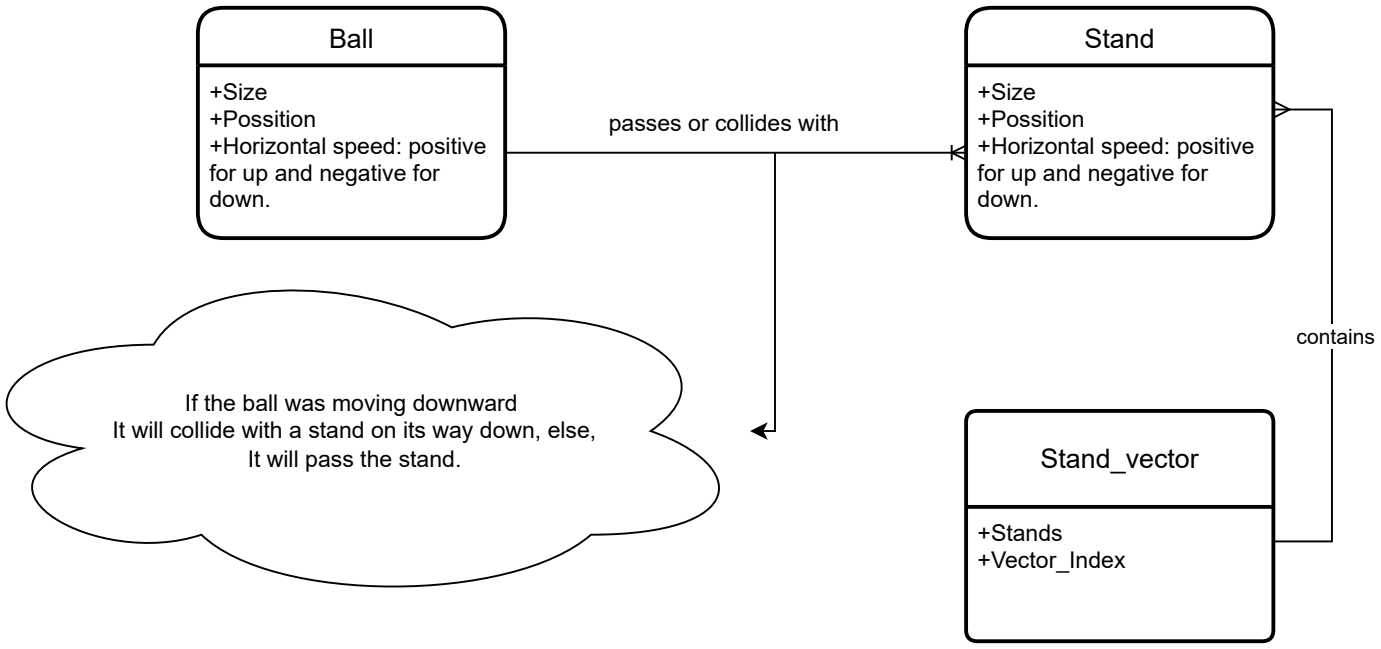
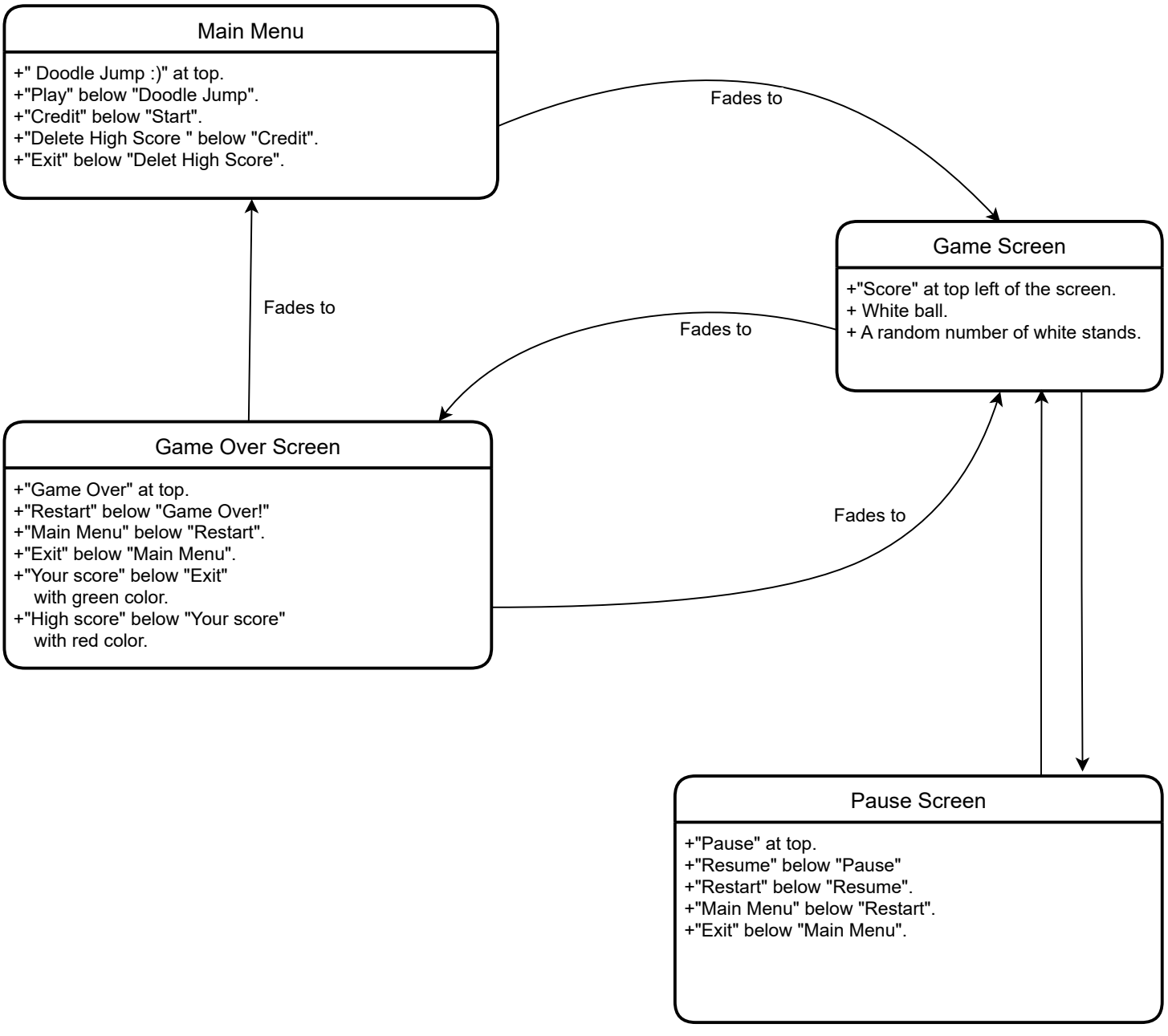
Entity Digram:



Game Pages:



Rules:

+ In Main Menu, Items(Start, Credit ...) that are selected by the user should be specified in yellow color. Other items should be presented with white color. Users can switch between items by pressing 'w' / 'W'(for selecting the item above) and 's' / 'S' (for selecting the item below). If the user pressed the 'Enter' key, The specified item (the yellow one) should be selected and processed. The Default selected item is "Play".
+ Same rule for selectable items in Game Over Screen (except that the default selected item is the "Restart" item) and other screens like the pause screen.
+ The ball's movement is accelerated. (the earth's gravity is affecting the ball's movement while it's moving up or down).
+ Selecting the position of stands is random.
+ The 'High Score' should be read from a file and saved to that file.

+ The scroll-down method: When the ball passed a certain height on the screen (name it 'Ball_Limit')while moving up, it should stop its movement, and other parts of the screen should move with the speed of a magnitude as same as the ball's speed, but different direction (downward). This state should continue till the magnitude of speed is zero. After that, The ball regains its previous state and starts to fall. This is where the game can decide to put (or not to put) stands at random positions on the top of the screen where a gap is generated in conclusion to scrolling down.
+ The ball should move left or right if one of the keys A/a, D/d were pressed.

Suggestions:

+ The game runs at 100 FPS (Frame Per Second).
+ Assume the ball size is 4 pixels.

Suppose that each pixel is a centimeter in the real world:

+ Assume the initial ball speed as 12 pixels per hundredth of a second.
+ In order to generate random numbers, use the linear congruential generator.
+ According to this link (https://en.wikipedia.org/wiki/Linear_congruential_generator), If a pseudorandom number less than r is desired, $\lfloor rX/m \rfloor$ is a much higher-quality result than $X \bmod r$.