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/* CRITTERS Critter.java
 * EE422C Project 5 submission by
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ReadMe.pdf

In our code, we had four main components

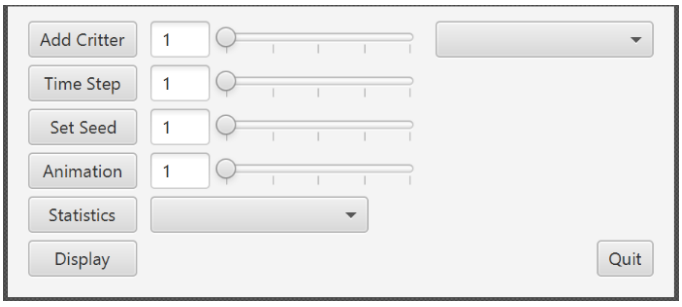
1. A Controller which displayed the controls/buttons required to simulate the Critters in their world
2. A View component used to display graphically the location of each Critter in the population
3. A look method used to indicate the presence of a Critter 1 or 2 steps from each individual critter
4. An animation that allows the user to simulate the Critter world at different speeds

In the Controller component, the buttons included are the ability to Add Critter, Time Step, Set Seed, Animation, Statistics, and Display. For the commands with an optional count, we implemented a Dialog box and a scroll bar to allow the user to enter a number. In addition, the Add Critter contains a dropdown box to prevent user error in typing the Critter name he/she would like to add.

For our display, we decided to implement two sizable windows to meet the demands of having a width and height side of greater than 100 Critters. To meet these requirements, a width or height parameter size greater than 32 X 70 will automatically scale to a 5 X 5 box per Critter, else the Critter world will scale to a 20 X 20 box per Critter. We considered the option of scaling for each parameter change; however, we came to the conclusion that it would be more aesthetic to have a set square size for each dimension.

In the display, each critter is displayed with its respective Fill Color, Outline Color, and Shape. The default color is White. We chose not to manually draw gridlines in order to add to the aesthetic of the display.

The animation aspect of our design allows the user to include how many frames they would like completed during a certain duration. Frames being synonymous for the number of Time Steps. However, despite the speed of the Time Steps increasing per time, the Display World will only visualize the locations of the Critter at a set speed, which we have decided to be 2 seconds.



Above is our completed design for the Critter Controller.