Timothy Hoang

Professor Rivas

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Project 2 Milestone

“Rage Circle”

The Java programming language that is general-purpose, concurrent, class-based, and object-oriented. Using knowledge that I have gathered and refined from Software Development I at Marist and Youtube videos, I have used the Java programming language to create a fun game. I chose to make a videogame because I wanted to learn how to make a graphics-based program that the user can interact with in real-time. Creating a videogame seems to have been the best choice for learning that path of Java programming since videogames are not only extremely reliant on visuals (aside from text-based games), but also require constant interaction from the user to run properly. Although I have not learned how to create visual graphics in my Software Development I class, I have learned to organize and classes and allow them to interact with each other in a meaningful and efficient manner. From Youtube, I have learned to take advantage of Processing core software to create graphics in a window that are drawn and altered by my Java program.

The system will consist of several classes to maintain an image of several rotating gates around layers of circles surrounding an end goal in the center of the game screen. The user avatar, a pixel must also be able to move in all directions from some sort of key input as well as having the game end if you touch a circle or when you reach the end goal. This can be accomplished by first having default values for the speed of the rotating gates, character avatar, and degrees of rotation. Then, create a movement class for the avatar so that it can move in four

directions; up, down, left, and right as well as any combination of those directions. A class should also be made for tracking whether your avatar reaches any point of interest and depending where it was, you win, lose, or continue the game. Lastly, a class could be made to track and move the gates around the circles, allowing the avatar to pass through the circles when between two points.

Draw
Ellipse; rectangle; rectangle
Draw circle; draw goal; draw avatar

Move Avatar
Key pressed (Boolean)
up; down; left; right

Gates
Position (float); rotate
Posx; posy; speed

The program might require Eclipse to run rather than out of the console solely because Processing only supports the Eclipse and its' own integrated development environment. Other than that, most modern computers will be able to run the program as it should not be labor-intensive. Current systems that exist which are similar to "Rage Circle" are other hand-eye coordinated games that exist on website gaming platforms. However, I am unable to learn from

their code since it is inaccessible to the public. I do not know of any other games that are exactly the same as what I imagine, but I can receive inspiration from similar games. I plan on making the w, a, s, and d keys for movement of your avatar according to where they are placed relative to each other. Also, any combination of up, down and left, right will allow you to move diagonal for more dynamic movement.

Overall, I hope to take advantage of this learning opportunity in order to expand my understanding of Java. By combining interesting aspects of computers such as visual graphics and real-time user interaction, I expect to expand my capabilities in creativity and design in Java programming for my future in software development and computer science in general. In the end, this challenging project will evolve my interest in programming as well as allow me to push myself to develop new skills and become better in my field.