COS 230a

Prof. Hristova

Homework 4 report

Martin Mitev, Dobrinka Gocheva, Marian Kutra, Vladimir Petrunov

Serpentine Dream

Our team has decided to recreate the classic snake game as our self-designed homework. We thought this is a fun idea, and, after all, this game is a classic. We believe that this game is a good idea for the project because the game’s goal is simple, and the majority, if not all of the people in the course, have had the opportunity to play it at some point. We also wanted to make something original and put our twist on thе game, so we made a new mode – Speedrun.

For the creation of the game, we used Javafx and Java swing. The graphic user interface plays a crucial part in a game. Тhe user has to be able to see what is happening on the screen while the game is running and also be able to input different commands to play. When the program runs, the start menu greets the user. Our team used CSS to style it and make it colorful. Three different buttons appear: “Play,” “Speedrun,” and “Quit.” It is essential to know that the user can exit the application at any time, in-game or not, by pressing the “M” key on the keyboard. In order for the game to run from the start menu, our team created a state variable that allows the application to transition from the menu to the actual game. As mentioned, our game has two playing modes – regular, which starts when the user clicks the “Play” button, and speed run mode, which begins when the user clicks on the “Speedrun” button. For each play mode, we have created a separate J-Frame. When the user has decided which mode to play, the famous snake appears rushing across the screen after starting the game. To control the movement of the snake, the user presses the arrow keys – simple yet effective.

We all know how to play snake. That is why we want to challenge the user by creating the new “Speedrun” mode. The goal of this mode is to collect as many apples as possible within 1 minute.

While the game is fun to play, it has some limitations. One of them is that our team could not implement a button that restarts the game after the game has ended. The user has to exit the application and re-run it to play again. Another thing to note is that while the game concept is simple, the game itself is quite heavy. The user may experience some raised CPU usage. It is also possible for the user to experience slight lag spikes when playing for a longer time. Furthermore, sometimes the screen freezes at collisions with the sides instead of transitioning to the exit menu.

Our team has worked hard on this project. We certainly hope that the end product is well received!