To use the application, simply run it. Then, there will be a joystick on the bottom right of the screen. You can use that joystick to control the character around the screen. The character can then kick the leaves falling down from the trees.

My new features were my character, joystick, and a LightingColorFilter. My character uses a bitmap, new for me, to have 16 different possible frames for animation. Depending on the direction of movement, the character will switch between those frames. Additionally, the character will become slower and smaller once it goes up to have an effect of going into the background.

I made a joystick following this tutorial: <https://www.youtube.com/watch?v=3oZ2jt0hQmo&t=58s>. It has an inner and outer circle, inner for control and outer for boundaries. Then, in DrawView, I have an OnTouchEvent to detect if someone is touching and moving the joystick, which will update the joystick to move. The movement of the joystick will then control the character.

Lastly, I used LightingColorFilters to make a day/night cycle. The LightingColorFilter changes the background and path colors by multiplying the RGBs by a value and adding a value. I utilize this by slowly decreasing the multiplication so that the RGBs of the background so it becomes darker. Additionally, I used the add feature by adding more and more red (and green for the path) to make the background more yellow, making the effect of a sunset. The LightingColorFilter then goes back up and repeats the cycle over and over again.

One thing to note about this lab is that I used the framework from my Lab 10 and expanded upon it to make this.