Kobe Luna

Nbody Project Report

For this project I used python along with the packages tkinter for the visualization of the particles, numpy for the array use, random, math, and time for the simple arithmetic although I did not need to use the random package, but I thought it would be better to get a different value for each body. I created variables for mass, x and y positions, and velocity as well as the density for each object. I then created a function for the force of gravity on the objects and how they will react to each other depending on the force, size, mass, and velocity of a different object. I used 500 NBodies with each body having a different velocity and mass to illustrate real life gravity. A loop was then created for the bodies to stay within the frame of the animation as well as updated the frame whenever the code can loop back over and also a timer to show how long the code takes to execute for each run.

Graphical user interface

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Graphical user interface

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