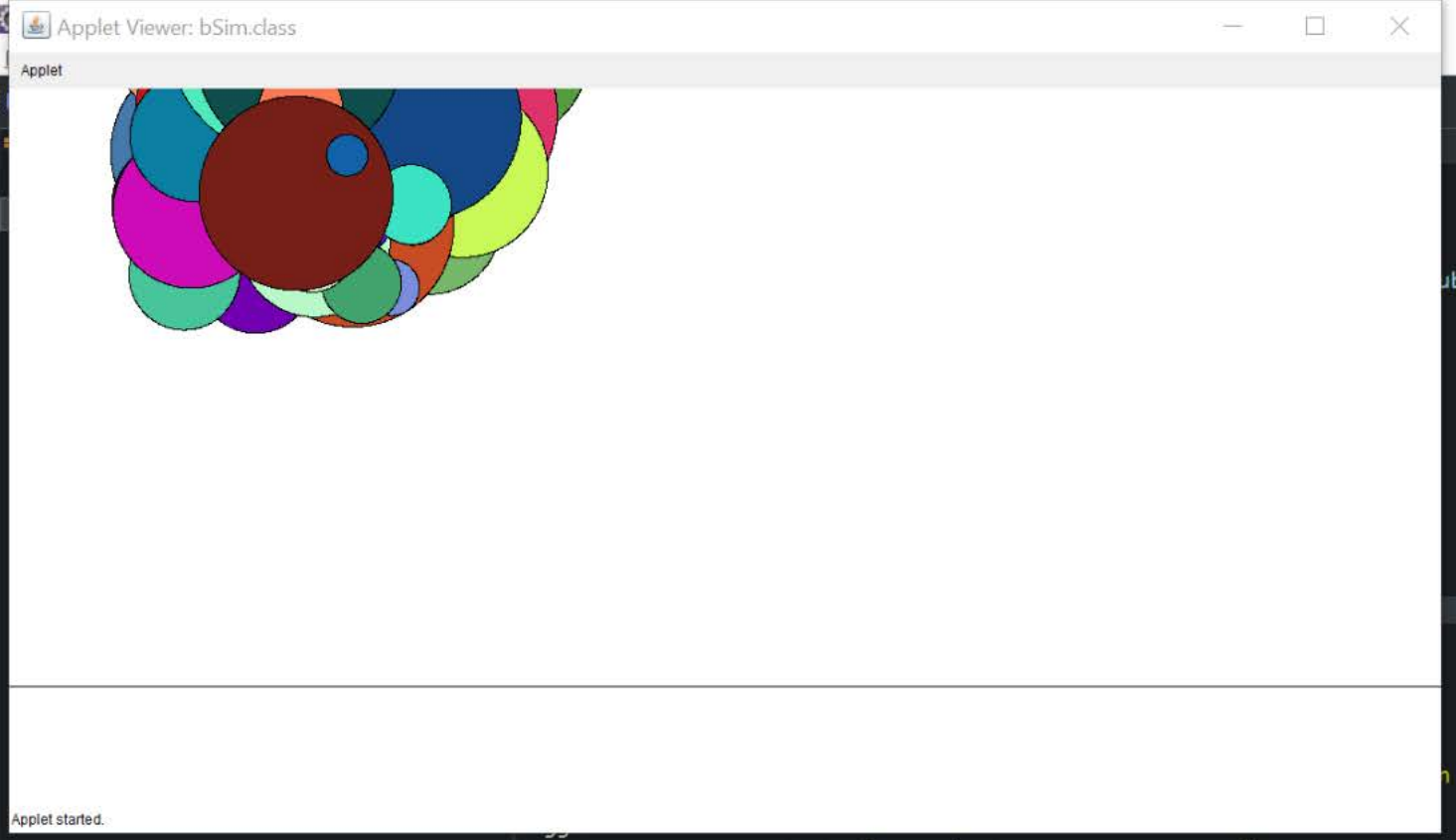
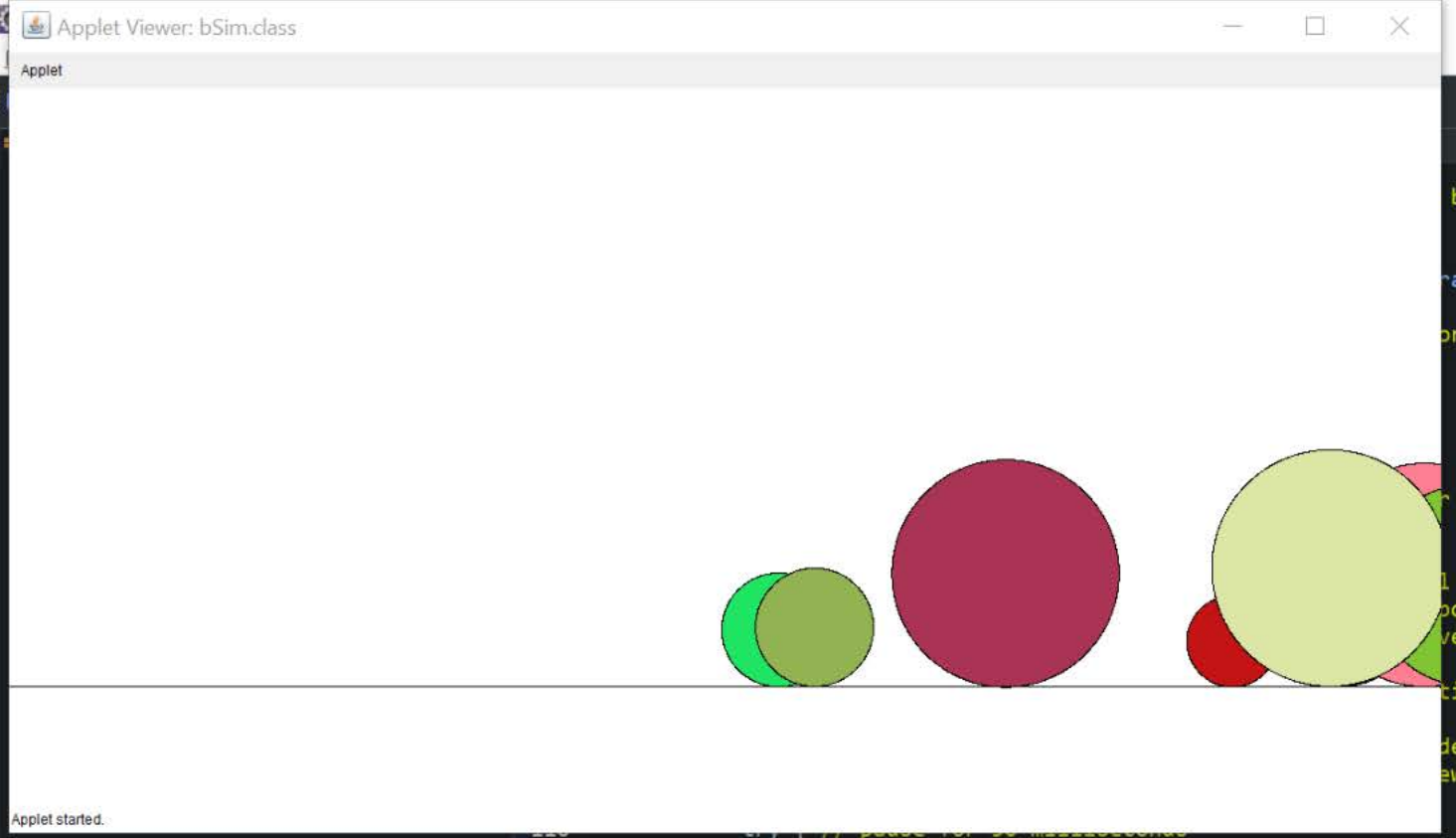



```
54          // The following variables are needed to simulate the ball bounce
55          double INTERVAL_TIME = 0.1;
56          double currentHeight;// acts like a free variable, taking whatever value it is assigned to
57          boolean Updir = false; // boolean evaluates true/false
58          double updirection = 0;
59          double Time = 0;
60          double xi=0;
61          // adding the ball with (X-cord, Y=cord, x-radius, y-radius)
62          /*
63           * The following two variables, "iheight" and "eloss" are entered by the user.
64           * "iheight" is initial height of the ball and "eloss" is the amount of energy
65           * loss by the ball on each bounce
66           */
```




```
                ball once it got up

ravity * Time * Time;

order to loop the calculations again

r to recalculate the balling ball

l in the x direction
ounce of the ball
vement of the ball

tion for the user at every interval of time.

der to see the ball. the
ew location of the ball

117             Thread.sleep(1);
118             } catch (InterruptedException e) { //will display error if there is any
119             e.printStackTrace();
120             }
121
122         //displays the new location of the ball with all of physics applied
123
124         myball.setLocation(xi, 500-bSize-currentHeight); //setting new locations for the ball after calculating
125     }
126 }
127
128
129     }
```