

Threads

In this in-class exercise, we will be working on updating your working knowledge of both Threads and Graphics

As an introduction to graphics, a BallFrame is a basic JFrame, or one of the main Graphics objects. Events such as when the user clicks the mouse are handled by a mouse listener. In the BallFrame code, a BouncingBall is created each time the user clicks. The BouncingBall object uses the Graphics environment of the BallFrame as the drawing platform.

Create a thread

The BouncingBall class has a run method and implements the Runnable interface so it can be used as a thread. Finish the BallFrame.java file by creating a Thread and then starting the Thread (see the 2 comments in the file)

Extras:

- Colors:
 - Each time the user clicks, create a ball of a different color.
- Position:
 - Have the ball start at the position the user clicks. This information is in the BallFrame.java file where you created the threads.
 - Give the ball a random xSpeed and a random ySpeed so that it goes in different directions each time
 - Make the ball 'bounce' off the bottom of the screen if it goes down. Note: the position (0,0) is the top left corner, so the bottom of the screen is actually 300.
- Gravity:
 - Make your ball 'respond' to the effects of gravity
- Shadow:
 - Draw a shadow of the ball at the bottom of the screen using the fillOval method, but pass in different numbers so that the shadow is not round.