Algorithm

1. First take a jframe of size pixel 500

i.e setSize(518,547)

it will give (500\*500) pixel jframe

1. Make surface by drawing lines in eachside of the jframe that is 40 pixel in each side

Using drawLine(int x1, int y1, int x2, int y2)

* **x1** – It takes the first point’s x coordinate.
* **y1** – It takes first point’s y coordinate.
* **x2** – It takes second point’s x coordinate.
* **y2** – It takes second point’s y coordinate

1. int x = 43

int y = 43

Here (x,y) represents the starting position of the object

int radius = 20

Here radius of the ball is 20

1. If(x<radius+40)

Then dx= Math.abs(dx);

* here Math.abs(dx) return the absolute value of the dx that it prevent dx to become negative
* it prevent the object to go outside of frame in leftside that is before 60 pixel

1. if(x>getWidth()-radius-40)

then dx = -Math.abs(dx)

* here getWidth() function returns the width of the frame i.e 500
* Before 60 pixel from the rightside object rebounds
* Here –Math.abs(dx) means dx is always –ve

1. If(y<radius+40)

Then dy = Math.abs(dy);

* Similarly it prevent the object to go outside of the frame from the upper surface that is before 60 pixel

1. If(y>getHeight()-radius-40)

Then dy=-Math.abs(dy)

* Here getHeight() method returns height of the frame
* It prevents object to go outside of the frame from the lower surface that is before 60 pixel

Fire the object from the coordinate of (x,y) with increment of x coordinate with 2 pixels and y axis with 4 pixels.

dx = 2

dy = 4

x+=dx

y+=dy