

Exp : 12 Simulation of Bouncing Ball using Pygame

AIM :To Write a program for developing a game activity using py game like bouncing

Algorithm

1. Start the Program
2. Set screen size and background color
3. Set speed of moving ball
4. Create a graphical window using set_modet()
5. Set caption
6. Load the ball image and create a rectangle area covering the image
7. Use blit() method to copy the pixel color of the ball to the screen
8. Set background color of screen and use flip() method to make all images visible
9. Move the ball in specified speed
10. If ball hits the edges of the screen reverse the direction
11. Create and infinite loop and repeat steps 9 and 10 until user quits the program
12. Stop the program

Program

```
import sys, pygame
pygame.init()
size = width, height = 800, 400
speed = [1, 1]
background = 255, 255, 255
screen = pygame.display.set_mode(size)
pygame.display.set_caption("Bouncing ball")
ball = pygame.image.load("ball.png")
ballrect = ball.get_rect()
while 1:
    for event in pygame.event.get():
        if event.type == pygame.QUIT:
            sys.exit()
    ballrect = ballrect.move(speed)
    if ballrect.left < 0 or ballrect.right > width:
        speed[0] = -speed[0]
    if ballrect.top < 0 or ballrect.bottom > height:
        speed[1] = -speed[1]
    screen.fill(background)
    screen.blit(ball, ballrect)
    pygame.display.flip()
```

Result : Thus the program is successfully executed

Output :

