

Ex.No: 12a	BOUNCING BALL
Date :	

AIM:

To write a python program to implement bouncing balls using pygame tool.

ALGORITHM:

1. **Start the program.**
2. **Import the pygame package.**
3. **Initialize the pygame.**
4. **Display mode of pygame's window gets setted** by assigning the values.
5. Within the game_loop(), block size and velocity are given. Position of x and y values are calculated by **pos_x=window_w/2, pos_y=window_h/2.**
6. Pygame updtes by calculating its velocity.
7. Stop the program.

PROGRAM:

```
import pygame
pygame.init()
window_w=800 window_h=600
white=(255,255,255)
black=(0,0,0) FPS=120
window=pygame.display.set_mode((window_w,window_h))
pygame.display.set_caption("Game")
clock=pygame.time.Clock()
def game_loop():
    block_size=20
    velocity=[1,1]
    pos_x=window_w/2
    pos_y=window_h/2
    running=True
    while running:
        for event in pygame.event.get():
            if event.type==pygame.QUIT:
                pygame.quit()
                quit()
        pos_x+=velocity[0]
        pos_y+=velocity[1]
        if pos_x+block_size>window_w or pos_x<0:
            velocity[0]=-velocity[0]
        if pos_y + block_size > window_h or pos_y < 0:
            velocity[1] = -velocity[1]
        window.fill(white)
        pygame.draw.rect(window,black,[pos_x,pos_y,block_size,block_size])
        pygame.display.update()
        clock.tick(FPS)
    game_loop()
```

OUTPUT:



RESULT:

Thus the python program to implement bouncing balls using pygame tool.