```
import pygame
import random

pygame.init()

# Constants
WIDTH, HEIGHT = 400, 600
PIPE_WIDTH = 50
GRAVITY = 0.25
FLAP_HEIGHT = -5

# Colors
WHITE = (255, 255, 255)
BLUE = (0, 0, 255)
GREEN = (0, 255, 0)
RED = (255, 0, 0)

# Game variables
bird_pos = [50, HEIGHT // 2]
bird_radius = 15
velocity = 0
pipes = []
```

```
start_game = False  # Flag to control game
start

# Set up the display
screen =
pygame.display.set_mode((WIDTH,
HEIGHT))
pygame.display.set_caption("Flappy Bird")

clock = pygame.time.Clock()

def create_pipe():
    random_gap = random.randint(150, 250)
    top_pipe = pygame.Rect(WIDTH, 0,
PIPE_WIDTH, HEIGHT - random_gap)
    bottom_pipe = pygame.Rect(WIDTH,
HEIGHT - random_gap + 100, PIPE_WIDTH,
HEIGHT)
    return top_pipe, bottom_pipe

def move_pipes(pipes):
    for pipe in pipes:
        pipe[0].x -= 2
```

```
def draw_pipes(pipes):
    for pipe in pipes:
        pygame.draw.rect(screen, GREEN,
pipe[0])
        pygame.draw.rect(screen, GREEN,
pipe[1])

def collision(bird_pos, pipes):
    if bird_pos[1] > HEIGHT - bird_radius or
bird_pos[1] < bird_radius:
        return True
    for pipe in pipes:
        if bird_pos[1] - bird_radius <
pipe[0].height or bird_pos[1] + bird_radius >
pipe[1].y:
            if pipe[0].x - bird_radius <
bird_pos[0] < pipe[0].x + PIPE_WIDTH +
bird_radius:
                return True
    return False

# Wait for Enter key to start the game
```

```
while not start_game:
    for event in pygame.event.get():
        if event.type == pygame.KEYDOWN
and event.key == pygame.K_RETURN:
            start_game = True

# Main game loop starts after pressing the
start key
running = True
while running:
    screen.fill(WHITE)

    for event in pygame.event.get():
        if event.type == pygame.QUIT:
            running = False
        if event.type == pygame.KEYDOWN:
            if event.key == pygame.K_SPACE:
                velocity = FLAP_HEIGHT

    velocity += GRAVITY
    bird_pos[1] += velocity

    if len(pipes) == 0 or pipes[-1][0].x <
```

```
WIDTH - 150:
        pipes.append(create_pipe())

    move_pipes(pipes)
    draw_pipes(pipes)

    pygame.draw.circle(screen, RED,
bird_pos, bird_radius)

    if collision(bird_pos, pipes):
        running = False

    pygame.display.update()
    clock.tick(60)

pygame.quit()
```