

Step 1: Basic Setup and Window Creation

```
import pygame
import sys

pygame.init()

SCREEN_WIDTH = 800
SCREEN_HEIGHT = 600
screen = pygame.display.set_mode((SCREEN_WIDTH, SCREEN_HEIGHT))
pygame.display.set_caption("Thu th

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WHITE = (255, 255, 255)
clock = pygame.time.Clock()
FPS = 60

def main():
    running = True
    while running:
        screen.fill(WHITE)
        for event in pygame.event.get():
            if event.type == pygame.QUIT:
                running = False

        pygame.display.flip()
        clock.tick(FPS)

    pygame.quit()
    sys.exit()

if __name__ == "__main__":
    main()
```

Step 2: Add the Player

```
class Player:
    def __init__(self, x, y, width, height, speed, image_path):
        self.x = x
        self.y = y
        self.width = width
        self.height = height
        self.speed = speed
        self.image = pygame.image.load(image_path)
        self.image = pygame.transform.scale(self.image, (self.width, self.height))

    def draw(self, surface):
        surface.blit(self.image, (self.x, self.y))

    def move(self, keys):
        if keys[pygame.K_LEFT] and self.x > 0:
            self.x -= self.speed
        if keys[pygame.K_RIGHT] and self.x < SCREEN_WIDTH - self.width:
            self.x += self.speed

# Add to main
player = Player(SCREEN_WIDTH // 2 - 25, SCREEN_HEIGHT - 60, 50, 50, 10, "player.png")
```

```

def main():
    running = True
    while running:
        screen.fill(WHITE)
        for event in pygame.event.get():
            if event.type == pygame.QUIT:
                running = False

        keys = pygame.key.get_pressed()
        player.move(keys)
        player.draw(screen)

        pygame.display.flip()
        clock.tick(FPS)

    pygame.quit()
    sys.exit()

```

Step 3: Add Falling Objects

```

class Object:
    def __init__(self, x, y, width, height, speed, obj_type, image_path):
        self.x = x
        self.y = y
        self.width = width
        self.height = height
        self.speed = speed
        self.type = obj_type
        self.image = pygame.image.load(image_path)
        self.image = pygame.transform.scale(self.image, (self.width, self.height))

    def draw(self, surface):
        surface.blit(self.image, (self.x, self.y))

    def move(self):
        self.y += self.speed

# Add to main
objects = []
def main():
    running = True
    while running:
        screen.fill(WHITE)
        for event in pygame.event.get():
            if event.type == pygame.QUIT:
                running = False

        if random.randint(1, 60) == 1:
            objects.append(Object(random.randint(0, SCREEN_WIDTH - 40), -40, 40, 40, 5, "bonus"))

        for obj in objects[:]:
            obj.move()
            obj.draw(screen)
            if obj.y > SCREEN_HEIGHT:
                objects.remove(obj)

        keys = pygame.key.get_pressed()
        player.move(keys)

```

```

player.draw(screen)

pygame.display.flip()
clock.tick(FPS)

pygame.quit()
sys.exit()

```

Step 4: Collision Detection and Score Update

```

def check_collision(player, obj):
    return player.x < obj.x + obj.width and player.x + player.width > obj.x and player.y < obj.y + obj.height

score = 0
def main():
    global score
    running = True
    while running:
        screen.fill(WHITE)
        for event in pygame.event.get():
            if event.type == pygame.QUIT:
                running = False

        if random.randint(1, 60) == 1:
            objects.append(Object(random.randint(0, SCREEN_WIDTH - 40), -40, 40, 40, 5, "bonus"))

        for obj in objects[:]:
            obj.move()
            obj.draw(screen)
            if obj.y > SCREEN_HEIGHT:
                objects.remove(obj)

            if check_collision(player, obj):
                score += 10
                objects.remove(obj)

        keys = pygame.key.get_pressed()
        player.move(keys)
        player.draw(screen)

        font = pygame.font.Font(None, 36)
        score_text = font.render(f"Score: {score}", True, (0, 0, 0))
        screen.blit(score_text, (10, 10))

        pygame.display.flip()
        clock.tick(FPS)

    pygame.quit()
    sys.exit()

```

Step 5: Add Lives and Game Over

```

lives = 3
def main():
    global score, lives
    running = True

```

```

while running:
    screen.fill(WHITE)
    for event in pygame.event.get():
        if event.type == pygame.QUIT:
            running = False

    if random.randint(1, 60) == 1:
        objects.append(Object(random.randint(0, SCREEN_WIDTH - 40), -40, 40, 40, 5, "bonus"))

    for obj in objects[:]:
        obj.move()
        obj.draw(screen)
        if obj.y > SCREEN_HEIGHT:
            objects.remove(obj)

        if check_collision(player, obj):
            if obj.type == "bonus":
                score += 10
            else:
                lives -= 1
            objects.remove(obj)

    if lives <= 0:
        print("Game Over!")
        running = False

    keys = pygame.key.get_pressed()
    player.move(keys)
    player.draw(screen)

    score_text = font.render(f"Score: {score}", True, (0, 0, 0))
    lives_text = font.render(f"Lives: {lives}", True, (0, 0, 0))
    screen.blit(score_text, (10, 10))
    screen.blit(lives_text, (10, 50))

    pygame.display.flip()
    clock.tick(FPS)

pygame.quit()
sys.exit()

```