

```
Import pygame
```

```
Import random
```

```
Import time
```

```
Pygame.init()
```

```
Clock = pygame.time.Clock()
```

```
Fps = 60
```

```
# Game window
```

```
Tile_size = 50
```

```
Cols = 20
```

```
Margin = 100
```

```
Screen_width = tile_size * cols
```

```
Screen_height = (tile_size * cols) + margin
```

```
Screen = pygame.display.set_mode((screen_width, screen_height))
```

```
Pygame.display.set_caption('Rail Rush Clone')
```

```
# Function to load images with error handling
```

```
Def load_image(path, size=None):
```

```
    Try:
```

```
        Image = pygame.image.load(path)
```

```
    If size:
```

```
        Image = pygame.transform.scale(image, size)
```

```
    Return image
```

Except pygame.error as e:

Print(f"Unable to load image at {path}. Error: {e}")

Return None

Load images

Bg_img = load_image(r'C:\Users\sheeb\OneDrive\Desktop\Documents\bg.jpg',
(screen_width, screen_height - margin))

Wood_img = load_image(r'C:\Users\sheeb\OneDrive\Desktop\Documents\obstacle.jpg',
(tile_size, tile_size))

Banana_img = load_image(r'C:\Users\sheeb\OneDrive\Desktop\Documents\banana.jpg',
(tile_size, tile_size))

Monkey_img = load_image(r'C:\Users\sheeb\OneDrive\Desktop\Documents\monkey.jpg',
(tile_size * 2, int(tile_size * 3)))

Define game variables

Score = 0

Gravity = 1

Game_over = False

Define colors

White = (255, 255, 255)

Green = (144, 201, 120)

Black = (0, 0, 0)

Font = pygame.font.SysFont('Futura', 24)

Player class

Class Player():

Def __init__(self, x, y):

Self.rect = pygame.Rect(x, y, tile_size * 2, int(tile_size * 3))

Self.vel_y = 0

Self.jump_power = 15

Self.jump_count = 0

Self.max_jumps = 3 # Max number of times the up arrow can be pressed to increase the jump height

Self.in_air = True

Def move(self):

Dx = 0

Dy = 0

Get key presses

Key = pygame.key.get_pressed()

If key[pygame.K_UP] and self.jump_count < self.max_jumps:

If not self.in_air:

Self.vel_y = -self.jump_power

Self.in_air = True

Else:

Self.vel_y = -self.jump_power * (self.max_jumps – self.jump_count) # Increase jump height

Self.jump_count += 1

If key[pygame.K_LEFT]:

Dx = -5

If key[pygame.K_RIGHT]:

Dx = 5

Gravity

Self.vel_y += gravity

If self.vel_y > 10:

 Self.vel_y = 10

Dy += self.vel_y

Update player position

Self.rect.x += dx

Self.rect.y += dy

Collision with ground

If self.rect.bottom > screen_height – margin:

 Self.rect.bottom = screen_height – margin

 Dy = 0

 Self.in_air = False

 Self.jump_count = 0 # Reset jump count when on the ground

Draw the player

Screen.blit(monkey_img, self.rect.topleft)

Return dx, dy

Obstacle class

Class Obstacle(pygame.sprite.Sprite):

```
Def __init__(self, x, y):  
    Pygame.sprite.Sprite.__init__(self)  
    Self.image = wood_img  
    Self.rect = self.image.get_rect()  
    Self.rect.x = x  
    Self.rect.y = y
```

```
Def update(self):  
    Self.rect.x -= 5  
    If self.rect.right < 0:  
        Self.kill()
```

Banana class

```
Class Banana(pygame.sprite.Sprite):  
    Def __init__(self, x, y):  
        Pygame.sprite.Sprite.__init__(self)  
        Self.image = banana_img  
        Self.rect = self.image.get_rect()  
        Self.rect.x = x  
        Self.rect.y = y
```

```
Def update(self):  
    Self.rect.y += 5 # Falling speed  
    If self.rect.top > screen_height:  
        Self.kill()
```

```
# Create sprite groups

Obstacle_group = pygame.sprite.Group()

Banana_group = pygame.sprite.Group()

Player = Player(screen_width // 2 - tile_size, screen_height - margin - tile_size * 1.5)


# Function to draw text

Def draw_text(text, font, text_col, x, y):

    Img = font.render(text, True, text_col)

    Screen.blit(img, (x, y))


# Timer variables

Last_banana_time = time.time()

Obstacle_spawn_interval = 15 # 15 bananas


# Main game loop

Run = True

Banana_counter = 0


While run:

    Clock.tick(fps)


    # Draw background

    Screen.fill(green)

    If bg_img:

        Screen.blit(bg_img, (0, 0))
```

```
# Draw black road in the center

Road_width = screen_width // 4

Road_height = tile_size

Road_x = (screen_width - road_width) // 2

Road_y = screen_height - margin - tile_size

Pygame.draw.rect(screen, black, (road_x, road_y, road_width, road_height))


# Draw player

Dx, dy = player.move()


# Update and draw groups

Obstacle_group.update()

Obstacle_group.draw(screen)

Banana_group.update()

Banana_group.draw(screen)


# Check for collision with obstacles

If pygame.sprite.spritecollide(player, obstacle_group, False):

    Game_over = True


# Check for collision with bananas

If pygame.sprite.spritecollide(player, banana_group, True):

    Score += 1

    Banana_counter += 1

    Last_banana_time = time.time() # Update timer when banana is caught
```

```
# Draw the score
```

```
Draw_text(f'Score: {score}', font, white, tile_size, screen_height - 60)
```

```
# Generate new bananas
```

```
If random.randint(1, 50) == 1:
```

```
    Banana_group.add(Banana(random.randint(0, screen_width - tile_size), -tile_size))
```

```
# Check if it's time to spawn a new obstacle
```

```
If banana_counter >= obstacle_spawn_interval:
```

```
    Obstacle_group.add(Obstacle(screen_width, screen_height - margin - tile_size * 2))
```

```
    Banana_counter = 0 # Reset the banana counter after spawning an obstacle
```

```
# Event handler
```

```
For event in pygame.event.get():
```

```
    # Quit game
```

```
    If event.type == pygame.QUIT:
```

```
        Run = False
```

```
If game_over:
```

```
    Draw_text('Game Over', font, white, screen_width // 2 - 100, screen_height // 2)
```

```
    Pygame.display.update()
```

```
    Pygame.time.wait(2000)
```

```
    Run = False
```

```
# Update game display window
```

```
Pygame.display.update()
```



```
Pygame.quit()
```