You can code a scrolling block game in Python using the Pygame library by combining three core ideas: a moving background, a player character, and obstacles that scroll across the screen.

Here's a breakdown of how to do it:

🧩 Key Components of a Scrolling Block Game

- **Game Loop:** Continuously updates positions and redraws the screen.
- **Player Block:** A rectangle that can jump or move.
- **Scrolling Background:** Simulated by moving obstacles and ground to the left.
- **Obstacles:** Rectangles or spikes that spawn off-screen and move leftward.
- **Collision Detection:** Ends the game when the player hits an obstacle.
- **Score System:** Increases as the player survives longer.

Setup Pygame

```
import pygame, sys, random
pygame.init()
WIDTH, HEIGHT = 800, 400
screen = pygame.display.set_mode((WIDTH, HEIGHT))
clock = pygame.time.Clock()
```

Create Player Block

```
 player = pygame.Rect(100, HEIGHT-60, 50, 50)

gravity = 0.5

velocity = 0
```

Scrolling Obstacles

```
obstacles = []

def spawn_obstacle():

    rect = pygame.Rect(WIDTH, HEIGHT-60, 50, 50)

    obstacles.append(rect)
```

Game Loop

```
score = 0
while True:
    for event in pygame.event.get():
        if event.type == pygame.QUIT:
            pygame.quit(); sys.exit()
        if event.type == pygame.KEYDOWN and event.key == pygame.K_SPACE:
            if player.bottom >= HEIGHT-60:
                velocity = -10

    # Gravity
    velocity += gravity
    player.y += velocity
    if player.bottom >= HEIGHT-60:
        player.bottom = HEIGHT-60
        velocity = 0

    # Move obstacles
    for obs in obstacles:
        obs.x -= 5
    obstacles = [obs for obs in obstacles if obs.right > 0]

    # Spawn new obstacles
    if random.randint(0, 60) == 1:
        spawn_obstacle()
```

```
# Collision
for obs in obstacles:
    if player.colliderect(obs):
        print("Game Over! Final Score:", score)
        pygame.quit(); sys.exit()

# Draw
screen.fill((30,30,30))
pygame.draw.rect(screen, (0,200,0), player)
for obs in obstacles:
    pygame.draw.rect(screen, (200,0,0), obs)
score += 1
pygame.display.flip()
clock.tick(60)
```