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Tic-Tac-Toe Game in Python

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import pygame
from pygame.locals import *

pygame.init()

sh = 300
sw = 300
lw = 6
s = pygame.display.set_mode((sw, sh))
pygame.display.set_caption('Tic Tac Toe - Dev')

red = (255, 0, 0)
black = (0, 0, 0)
blue = (0, 0, 255)

font = pygame.font.SysFont(None, 40)

clicked = False
player = 1
pos = (0,0)
m = []
game_over = False
winner = 0

again_rect = Rect(sw // 2 - 80, sh // 2, 160, 50)

for x in range (3):
    row = [0] * 3
    m.append(row)
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def draw_board():
    bg = (255, 255, 210)
    grid = (50, 50, 50)
    s.fill(bg)
    for x in range(1,3):
        pygame.draw.line(s, grid, (0, 100 * x), (sw,100 * x), lw)
        pygame.draw.line(s, grid, (100 * x, 0), (100 * x, sh), lw)

def draw_m():
    x_pos = 0
    for x in m:
        y_pos = 0
        for y in x:
            if y == 1:
                pygame.draw.line(s, red, (x_pos * 100 + 15, y_pos * 100 +
15), (x_pos * 100 + 85, y_pos * 100 + 85), lw)
                pygame.draw.line(s, red, (x_pos * 100 + 85, y_pos * 100 +
15), (x_pos * 100 + 15, y_pos * 100 + 85), lw)
            if y == -1:
                pygame.draw.circle(s, black, (x_pos * 100 + 50, y_pos *
100 + 50), 38, lw)
            y_pos += 1
        x_pos += 1

def check_game_over():
    global game_over
    global winner

    x_pos = 0
    for x in m:

        if sum(x) == 3:
            winner = 1
            game_over = True
        if sum(x) == -3:
            winner = 2
            game_over = True

    if m[0][x_pos] + m [1][x_pos] + m [2][x_pos] == 3:

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        winner = 1
        game_over = True
    if m[0][x_pos] + m [1][x_pos] + m [2][x_pos] == -3:
        winner = 2
        game_over = True
    x_pos += 1

    if m[0][0] + m[1][1] + m[2][2] == 3 or m[2][0] + m[1][1] + m [0][2] ==
3:
        winner = 1
        game_over = True
    if m[0][0] + m[1][1] + m[2][2] == -3 or m[2][0] + m[1][1] + m[0][2] ==
-3:
        winner = 2
        game_over = True

    if game_over == False:
        tie = True
        for row in m:
            for i in row:
                if i == 0:
                    tie = False
        if tie == True:
            game_over = True
            winner = 0

def draw_game_over(winner):

    if winner != 0:
        end_text = "Player " + str(winner) + " wins!"
    elif winner == 0:
        end_text = "You have tied!"

    end_img = font.render(end_text, True, blue)
    pygame.draw.rect(s, black, (sw // 2 - 100, sh // 2 - 60, 200, 50))
    s.blit(end_img, (sw // 2 - 100, sh // 2 - 50))

    again_text = 'Play Again?'

```

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again_img = font.render(again_text, True, blue)
pygame.draw.rect(s, black, again_rect)
s.blit(again_img, (sw // 2 - 80, sh // 2 + 10))

run = True
while run:

    draw_board()
    draw_m()

    for event in pygame.event.get():

        if event.type == pygame.QUIT:
            run = False
        if game_over == False:
            if event.type == pygame.MOUSEBUTTONDOWN and clicked == False:
                clicked = True
            if event.type == pygame.MOUSEBUTTONUP and clicked == True:
                clicked = False
                pos = pygame.mouse.get_pos()
                cell_x = pos[0] // 100
                cell_y = pos[1] // 100
                if m[cell_x][cell_y] == 0:
                    m[cell_x][cell_y] = player
                    player *= -1
                    check_game_over()

        if game_over == True:
            draw_game_over(winner)
            if event.type == pygame.MOUSEBUTTONDOWN and clicked == False:
                clicked = True
            if event.type == pygame.MOUSEBUTTONUP and clicked == True:
                clicked = False
                pos = pygame.mouse.get_pos()
                if again_rect.collidepoint(pos):
                    game_over = False
                    player = 1
                    pos = (0,0)

```

```
m = []
winner = 0
for x in range (3):
    row = [0] * 3
    m.append(row)

pygame.display.update()

pygame.quit()
```

Example Outputs:-







Tic Tac Toe - Dev

