



SHREE L. R. TIWARI COLLEGE OF ENGINEERING

Approved by AICTE & DTE, Maharashtra State & Affiliated to University of Mumbai, NAAC Accredited, NBA Accredited program,
ISO 9001:2015 Certified | DTE Code No: 3423, Recognized under Section 2(f) of the UGC Act 1956, Minority Status (Hindi Linguistic)

DEPARTMENT OF COMPUTER ENGINEERING

Program code:

```
import copy
from board import boards
import pygame
import math
pygame.init()
WIDTH = 900
HEIGHT = 950
screen = pygame.display.set_mode([WIDTH, HEIGHT])
player_x = 450
player_y = 663
direction = 0
blinky_x = 56
blinky_y = 58
blinky_direction = 0
inky_x = 440
inky_y = 388
inky_direction = 2
pinky_x = 440
pinky_y = 438
player_x = 450
player_y = 663
direction = 0
blinky_x = 56
blinky_y = 58
blinky_direction = 0
inky_x = 440
inky_y = 388
inky_direction = 2
pinky_x = 440
pinky_y = 438
```



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DEPARTMENT OF COMPUTER ENGINEERING

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

fps = 60

font = pygame.font.Font('freesansbold.ttf', 20)

level = copy.deepcopy(boards)

color = 'blue'

PI = math.pi

player_images = []

for i in range(1, 5):

    player_images.append(pygame.transform.scale(pygame.image.load(f'assets/player_images/{i}.png'),
    (45, 45)))

    blinky_img = pygame.transform.scale(pygame.image.load(f'assets/ghost_images/red.png'), (45, 45))
    pinky_img = pygame.transform.scale(pygame.image.load(f'assets/ghost_images/pink.png'), (45, 45))
    inky_img = pygame.transform.scale(pygame.image.load(f'assets/ghost_images/blue.png'), (45, 45))
    clyde_img = pygame.transform.scale(pygame.image.load(f'assets/ghost_images/orange.png'), (45,
    45))

    spooked_img = pygame.transform.scale(pygame.image.load(f'assets/ghost_images/powerup.png'),
    (45, 45))

    dead_img = pygame.transform.scale(pygame.image.load(f'assets/ghost_images/dead.png'), (45, 45))

    player_x = 450

    player_y = 663

    direction = 0

    blinky_x = 56

    blinky_y = 58

    blinky_direction = 0

    inky_x = 440

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    pinky_x = 440

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```
pinky_direction = 2
clyde_x = 440
clyde_y = 438
clyde_direction = 2
counter = 0
flicker = False
# R, L, U, D
turns_allowed = [False, False, False, False]
direction_command = 0
player_speed = 2
score = 0
powerup = False
power_counter = 0
eaten_ghost = [False, False, False, False]
targets = [(player_x, player_y), (player_x, player_y), (player_x, player_y), (player_x, player_y)]
blinko_dead = False
inky_dead = False
clyde_dead = False
pinky_dead = False
blinko_box = False
inky_box = False
clyde_box = False
pinky_box = False
moving = False
ghost_speeds = [2, 2, 2, 2]
startup_counter = 0
lives = 3
game_over = False
```



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```
game_won = False

    self.turns[1] = True

    if level[self.center_y // num1][(self.center_x + num3) // num2] < 3 \

        clyd_target = (400, 100)

    else:

        clyd_target = (player_x, player_y)

    else:

        clyd_target = return_target

    else:

        if not blinky.dead:

            if 340 < blink_x < 560 and 340 < blink_y < 500:

                blink_target = (400, 100)

            else:

                blink_target = (player_x, player_y)

        else:

            blink_target = return_target

    if not inky.dead:

        if 340 < ink_x < 560 and 340 < ink_y < 500:

            ink_target = (400, 100)

        else:

            ink_target = (player_x, player_y)

    else:

        ink_target = return_target

    if not pinky.dead:

        if 340 < pink_x < 560 and 340 < pink_y < 500:

            pink_target = (400, 100)

        else:

            pink_target = (player_x, player_y)
```



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else:

pink_target = return_target

if not clyde.dead:

if 340 < clyd_x < 560 and 340 < clyd_y < 500:

clyd_target = (400, 100)

else:

clyd_target = (player_x, player_y)

else:

clyd_target = return_target

return [blink_target, ink_target, pink_target, clyd_target]

run = True

while run:

timer.tick(fps)

if counter < 19:

counter += 1

if counter > 3:

flicker = False

else:

counter = 0

flicker = True

if powerup and power_counter < 600:

power_counter += 1

elif powerup and power_counter >= 600:

power_counter = 0

powerup = False

eaten_ghost = [False, False, False, False]

if startup_counter < 180 and not game_over and not game_won:

moving = False



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```
startup_counter += 1
else:
    moving = True

screen.fill('black')
draw_board()
center_x = player_x + 23
center_y = player_y + 24
if powerup:
    ghost_speeds = [1, 1, 1, 1]
else:
    ghost_speeds = [2, 2, 2, 2]
if eaten_ghost[0]:
    ghost_speeds[0] = 2
if eaten_ghost[1]:
    ghost_speeds[1] = 2
if eaten_ghost[2]:
    ghost_speeds[2] = 2
if eaten_ghost[3]:
    ghost_speeds[3] = 2
if blinky_dead:
    ghost_speeds[0] = 4
if inky_dead:
    ghost_speeds[1] = 4
if pinky_dead:
    ghost_speeds[2] = 4
if clyde_dead:
    ghost_speeds[3] = 4
```



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if lives > 0:

powerup = False

power_counter = 0

lives -= 1

startup_counter = 0

player_x = 450

player_y = 663

direction = 0

direction_command = 0

blinky_x = 56

blinky_y = 58

blinky_direction = 0

inky_x = 440

inky_y = 388

inky_direction = 2

pinky_x = 440

pinky_y = 438

pinky_direction = 2

clyde_x = 440

clyde_y = 438

clyde_direction = 2

eaten_ghost = [False, False, False, False]

blinky_dead = False

inky_dead = False

clyde_dead = False

pinky_dead = False

else:

game_over = True



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```
moving = False

startup_counter = 0

if powerup and player_circle.colliderect(blinky.rect) and not blinky.dead and not eaten_ghost[0]:

    blinky_dead = True

    eaten_ghost[0] = True

    score += (2 ** eaten_ghost.count(True)) * 100

if powerup and player_circle.colliderect(inky.rect) and not inky.dead and not eaten_ghost[1]:

    inky_dead = True

    eaten_ghost[1] = True

    score += (2 ** eaten_ghost.count(True)) * 100

if powerup and player_circle.colliderect(pinky.rect) and not pinky.dead and not eaten_ghost[2]:

    pinky_dead = True

    eaten_ghost[2] = True

    score += (2 ** eaten_ghost.count(True)) * 100

if powerup and player_circle.colliderect(clyde.rect) and not clyde.dead and not eaten_ghost[3]:

    clyde_dead = True

    eaten_ghost[3] = True

    score += (2 ** eaten_ghost.count(True)) * 100


for event in pygame.event.get():

    if event.type == pygame.QUIT:

        run = False

    if event.type == pygame.KEYDOWN:

        if event.key == pygame.K_RIGHT:

            direction_command = 0

        if event.key == pygame.K_LEFT:

            direction_command = 1

        if event.key == pygame.K_UP:
```




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```
direction_command = 2
```

```
if event.key == pygame.K_DOWN:
```

```
    direction_command = 3
```

```
if event.key == pygame.K_SPACE and (game_over or game_won):
```

```
    powerup = False
```

```
    power_counter = 0
```

```
    lives -= 1
```

```
    startup_counter = 0
```

```
    player_x = 450
```

```
    player_y = 663
```

```
    direction = 0
```

```
    direction_command = 0
```

```
    blinky_x = 56
```

```
    blinky_y = 58
```

```
    blinky_direction = 0
```

```
    inky_x = 440
```

```
    inky_y = 388
```

```
    inky_direction = 2
```

```
    pinky_x = 440
```

```
    pinky_y = 438
```

```
    pinky_direction = 2
```

```
    clyde_x = 440
```

```
    clyde_y = 438
```

```
    clyde_direction = 2
```

```
    eaten_ghost = [False, False, False, False]
```

```
    blinky_dead = False
```

```
    inky_dead = False
```

```
    clyde_dead = False
```



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```
pinky_dead = False
```

```
score = 0
```

```
lives = 3
```

```
level = copy.deepcopy(boards)
```

```
game_over = False
```

```
game_won = False
```

```
if event.type == pygame.KEYUP:
```

```
    if event.key == pygame.K_RIGHT and direction_command == 0:
```

```
        direction_command = direction
```

```
    if event.key == pygame.K_LEFT and direction_command == 1:
```

```
        direction_command = direction
```

```
    if event.key == pygame.K_UP and direction_command == 2:
```

```
        direction_command = direction
```

```
    if event.key == pygame.K_DOWN and direction_command == 3:
```

```
        direction_command = direction
```

```
if direction_command == 0 and turns_allowed[0]:
```

```
    direction = 0
```

```
if direction_command == 1 and turns_allowed[1]:
```

```
    direction = 1
```

```
if direction_command == 2 and turns_allowed[2]:
```

```
    direction = 2
```

```
if direction_command == 3 and turns_allowed[3]:
```

```
    direction = 3
```

```
if player_x > 900:
```

```
    player_x = -47
```

```
elif player_x < -50:
```

```
    player_x = 897
```

```
if blinky.in_box and blinky_dead:
```



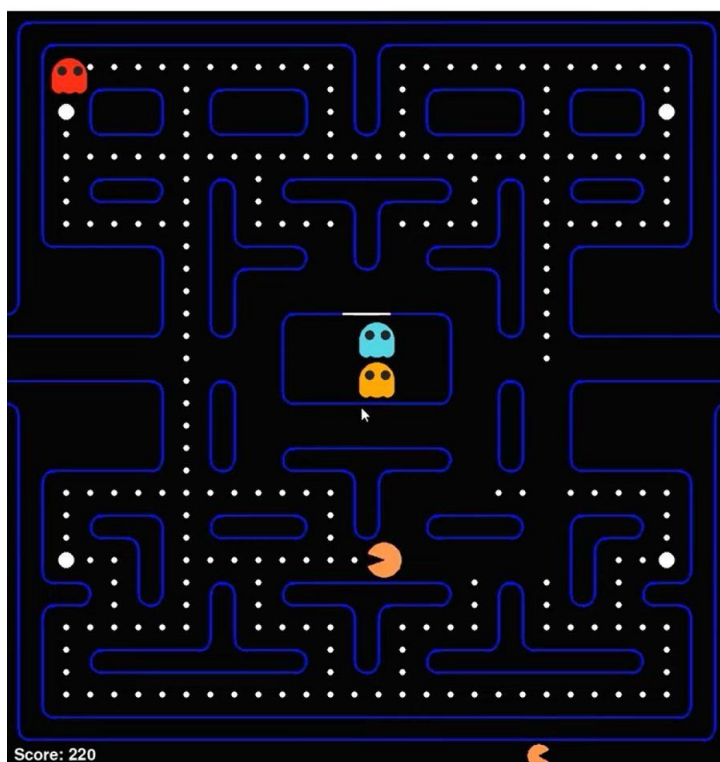
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```
    blinky_dead = False  
  
    if inky.in_box and inky_dead:  
        inky_dead = False  
  
    if pinky.in_box and pinky_dead:  
        pinky_dead = False  
  
    if clyde.in_box and clyde_dead:  
        clyde_dead = False  
  
    pygame.display.flip()  
  
pygame.quit()
```

Output





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