Assignment 3
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Q1 – Change the color of the pellets, background, borders, and player box. Modify only one subroutine. Which subroutine did you change, and how?

I modified the draw_everything subroutine and I changed the colors by supplying a different RGB value of the different objects in the game.

Q2 – Change the control keys: Replace up-left-down-right arrows by WASD. Modify only one subroutine. Which subroutine did you change, and how?

I modified the process_input() subroutine and changed K_Up to K_w K_Down to K_s K_Left to K_a and K_Right to K_d.

The speed of the player box is currently 50px per second. Make it 100px per second while keeping the frame rate at 50 frames per second. Modify only one subroutine. Which subroutine did you change, and how?

I modified the create_box subroutine by making the direction change from 0,1 to 0,2. This change would allow the object to move twice as fast on startup but after I make a move it will slow back down to a direction of 0,1 if we wanted for it to start at 0,2 we also have to modify the subroutine process_input and change the direction values after a move to 0,2.

Q3b – The `movebox` and `collide` subroutines have only one line of code each. They are not very substantial, but they keep `box.collidelist` and `box.move` outside of the main loop. Why is it a good idea to keep `collidelist` and `move` outside of the main loop?

Because if we put it in the loop the state of the collidelist and move list would we out of sync with how the game was being played. It needs to be outside so we can record and retrieve the game state in a synchronize manner.

Q4 – Add two obstacles in the middle of the screen. The exact positions do not matter, but keep their thickness at 2px so it is still possible for the player to collect the pellets. The player's box should die when it collides with a border. Do not create any new subroutine. Modify only one subroutine. Which subroutine did you change, and how? (20 points)

I modified the create_borders subroutine. By adding another border to the array of borders like so:

pygame.Rect(100,10, 100, 2) put into:

```
return [pygame.Rect(0, 0, thickness, h),
        pygame.Rect(0, 0, w, thickness),
        pygame.Rect(w - thickness, 0, thickness, h),
```

```
        pygame.Rect(0, h - thickness, w, thickness),
        pygame.Rect(100,10, 100, 2)]
```

like so.