

1) main.py

```
# Import the pygame library and initialise the game engine
import pygame
pygame.init()

# Define some colors
BLACK = (0,0,0)
WHITE = (255,255,255)

# Open a new window
size = (700, 500)
screen = pygame.display.set_mode(size)
pygame.display.set_caption("Pong")

# The loop will carry on until the user exits the game (e.g. clicks the close button).
carryOn = True

# The clock will be used to control how fast the screen updates
clock = pygame.time.Clock()

# ----- Main Program Loop -----
while carryOn:
    # --- Main event loop
    for event in pygame.event.get(): # User did something
        if event.type == pygame.QUIT: # If user clicked close
            carryOn = False # Flag that we are done so we exit this loop

    # --- Game logic should go here


    # --- Drawing code should go here
    # First, clear the screen to black.
    screen.fill(BLACK)
    #Draw the net
    pygame.draw.line(screen, WHITE, [349, 0], [349, 500], 5)

    # --- Go ahead and update the screen with what we've drawn.
    pygame.display.flip()

    # --- Limit to 60 frames per second
    clock.tick(60)

#Once we have exited the main program loop we can stop the game engine:
pygame.quit()
```

2) *paddle.py*

```
1  import pygame
2  BLACK = (0,0,0)
3
4  class Paddle(pygame.sprite.Sprite):
5      #This class represents a paddle. It derives from the "Sprite" class in Pygame.
6
7      def __init__(self, color, width, height):
8          # Call the parent class (Sprite) constructor
9          super().__init__()
10
11         # Pass in the color of the paddle, its width and height.
12         # Set the background color and set it to be transparent
13         self.image = pygame.Surface([width, height])
14         self.image.fill(BLACK)
15         self.image.set_colorkey(BLACK)
16
17         # Draw the paddle (a rectangle!)
18         pygame.draw.rect(self.image, color, [0, 0, width, height])
19
20         # Fetch the rectangle object that has the dimensions of the image.
21         self.rect = self.image.get_rect()
```

3) main.py

```
1  # Import the pygame library and initialise the game engine
2  import pygame
3  from paddle import Paddle
4
5  pygame.init()
6
7  # Define some colors
8  BLACK = (0,0,0)
9  WHITE = (255,255,255)
10
11 # Open a new window
12 size = (700, 500)
13 screen = pygame.display.set_mode(size)
14 pygame.display.set_caption("Pong")
15
16 paddleA = Paddle(WHITE, 10, 100)
17 paddleA.rect.x = 20
18 paddleA.rect.y = 200
19
20 paddleB = Paddle(WHITE, 10, 100)
21 paddleB.rect.x = 670
22 paddleB.rect.y = 200
23
24 #This will be a list that will contain all the sprites we intend to use in our game.
25 all_sprites_list = pygame.sprite.Group()
26
27 # Add the paddles to the list of sprites
28 all_sprites_list.add(paddleA)
29 all_sprites_list.add(paddleB)
30
31 # The loop will carry on until the user exits the game (e.g. clicks the close button).
32 carryOn = True
33
34 # The clock will be used to control how fast the screen updates
35 clock = pygame.time.Clock()
36
```

```
36
37 # ----- Main Program Loop -----
38 while carryOn:
39     # --- Main event loop
40     for event in pygame.event.get(): # User did something
41         if event.type == pygame.QUIT: # If user clicked close
42             carryOn = False # Flag that we are done so we exit this loop
43         elif event.type==pygame.KEYDOWN:
44             if event.key==pygame.K_x: #Pressing the x Key will quit the game
45                 carryOn=False
46
47     # --- Game logic should go here
48     all_sprites_list.update()
49
50
51     # --- Drawing code should go here
52     # First, clear the screen to black.
53     screen.fill(BLACK)
54     #Draw the net
55     pygame.draw.line(screen, WHITE, [349, 0], [349, 500], 5)
56
57     #Now let's draw all the sprites in one go. (For now we only have 2 sprites!)
58     all_sprites_list.draw(screen)
59
60     # --- Go ahead and update the screen with what we've drawn.
61     pygame.display.flip()
62
63     # --- Limit to 60 frames per second
64     clock.tick(60)
65
66 #Once we have exited the main program loop we can stop the game engine:
67 pygame.quit()
```

