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import sys

import pygame

from settings import Settings
from ship import Ship

class AlienInvasion:
    """Overall class to manage game assets and behavior"""

    def __init__(self):
        """Initialize the game, and create game resources"""

        pygame.init()
        self.settings = Settings()

        # Tell pygame to determine the size of the screen and set the screen
        # width and height based on the players screen size
        self.screen = pygame.display.set_mode((0,0), pygame.FULLSCREEN)
        self.settings.screen_width = self.screen.get_rect().width
        self.settings.screen_height = self.screen.get_rect().height

        pygame.display.set_caption("Sharons Alien Invasion")

        # Set the background color - colors are RGB colors: amix of red, green,
        # and blue. Each color range is 0 to 255
        self.bg_color = (10, 50, 230)

        self.ship = Ship(self)

    def run_game(self):
        """Start the main loop for the game"""

        while True:
            # call a method to check to see if any keyboard events have occurred
            self._check_events()
            self.ship.update()
            self._update_screen()

    def _check_events(self):
        """Respond to keypresses and mouse events."""
        # Did the player quit the game?
        for event in pygame.event.get():
            if event.type == pygame.QUIT:
                sys.exit()

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        # Did the player press the right or left arrow key?
        elif event.type == pygame.KEYDOWN:
            self._check_keydown_events(event)
        # Did the player stop holding down the arrow key?
        elif event.type == pygame.KEYUP:
            self._check_keyup_events(event)

    def _check_keydown_events(self, event):
        # Is the key the right arrow or is it the left arrow
        if event.key == pygame.K_RIGHT:
            self.ship.moving_right = True
        elif event.key == pygame.K_LEFT:
            self.ship.moving_left = True
        # Did the player hit the Q key to quite the game?
        elif event.key == pygame.K_q:
            sys.exit()

    def _check_keyup_events(self, event):
        # Did the player stop holding down the arrow keys?
        if event.key == pygame.K_RIGHT:
            self.ship.moving_right = False
        elif event.key == pygame.K_LEFT:
            self.ship.moving_left = False

    def _update_screen(self):
        """Update images on the screen, and flip to the new screen."""
        # Redraw the screen each pass through the loop
        self.screen.fill(self.settings.bg_color)
        self.ship.blitme()
        # Make the most recently drawn screen visible
        pygame.display.flip()

if __name__ == '__main__':
    # Make a game instance, and run the game
    ai = AlienInvasion()
    ai.run_game()

quit()

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