

Pygame_Shmup developing / 20221129 Choi Yunjeong

->It turned into a game to save sea turtles by avoiding falling sea trash and destroying them.

1. Images that I changed

1)rocket -> turtle



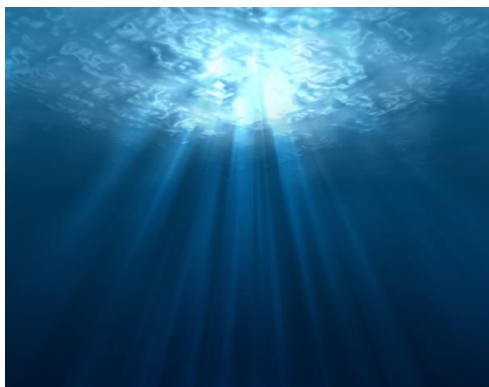
2)lazer -> burble



3)meteo -> trash in the ocean



4) background: starfield -> underwater / New background : turtle in cleaned ocean



5)New object: Bomb obstacle



2. Code added

1) Bomb obstacle: Bombs fall randomly. If you get hit, you lose one life

```
class Pow(pygame.sprite.Sprite):
    def __init__(self, center):
        pygame.sprite.Sprite.__init__(self)
        self.type = random.choice(['shield', 'gun', 'bomb'])
        self.image = powerup_images[self.type]
        self.image.set_colorkey(BLACK)
```

```
powerup_images['shield'] = pygame.image.load(path.join(img_dir, 'shield_gold.png')).convert()
powerup_images['gun'] = pygame.image.load(path.join(img_dir, 'bolt_gold.png')).convert()
powerup_images['bomb'] = pygame.image.load(path.join(img_dir, 'bomb.png')).convert()
```

```
hits = pygame.sprite.spritecollide(player, powerups, True)
for hit in hits:
    if hit.type == 'shield':
        player.shield += random.randrange(10, 30)
        shield_sound.play()
        if player.shield >= 100:
            player.shield = 100
    if hit.type == 'gun':
        player.powerup()
        power_sound.play()
    # put a bomb to make the game more difficult
    if hit.type == 'bomb':
        player_die_sound.play()
        death_explosion = Explosion(player.rect.center, 'player')
        all_sprites.add(death_explosion)
        player.hide()
        player.lives -= 1
        bomb_sound.play()
```

-bomb makes the lives decrease.

2) Success screen: If you get the score more than 1500, the success screen appears and the game end.

```
success = pygame.image.load(path.join(img_dir, "success.jpg")).convert()
success_rect = success.get_rect()
```

-image load

```
def show_success_screen():
    success_sound.play()
    screen.blit(success, success_rect)
    draw_text(screen, "You Saved Turtle!", 40, WIDTH / 2, HEIGHT / 4, BLACK)
    draw_text(screen, "Thank you for playing", 22,
               WIDTH / 2, HEIGHT / 2, BLACK)
    pygame.display.flip()
    time.sleep(3)
    pygame.quit()
```

-When the game is cleared, the success screen is displayed for 3 seconds and the game is ended.

```
if player.lives == 0 and not death_explosion.alive():
    game_over = True
elif score >= 1500 and player.lives > 0:
    game_success = True
```

-conditions to success