

P R E S E N T A T I O N

PYGAME

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INTRODUCTION

In Python, game programming is done using pygame library. Game development includes mathematics, logic, AI, and much more and it can be amazingly fun. Many times people like to visualize the programs they are creating as it can help people to learn programming logic quickly.



SPACE INVADER

Space Invaders is a **game** in which the player moves and shoot a bullet cannon horizontally across the bottom of the screen and fires at aliens overhead. The aliens begin that move left and right as a group, shifting downward each time they reach a screen edge. The goal is to eliminate all of the aliens and not let the aliens touch the bottom of the screen by shooting them.



INSTALLATION

```
main.py ×  
1 import pygame  
2 import random  
3 import math  
4 from pygame import mixer  
5  
6 # initialize the pygame  
7 pygame.init()
```

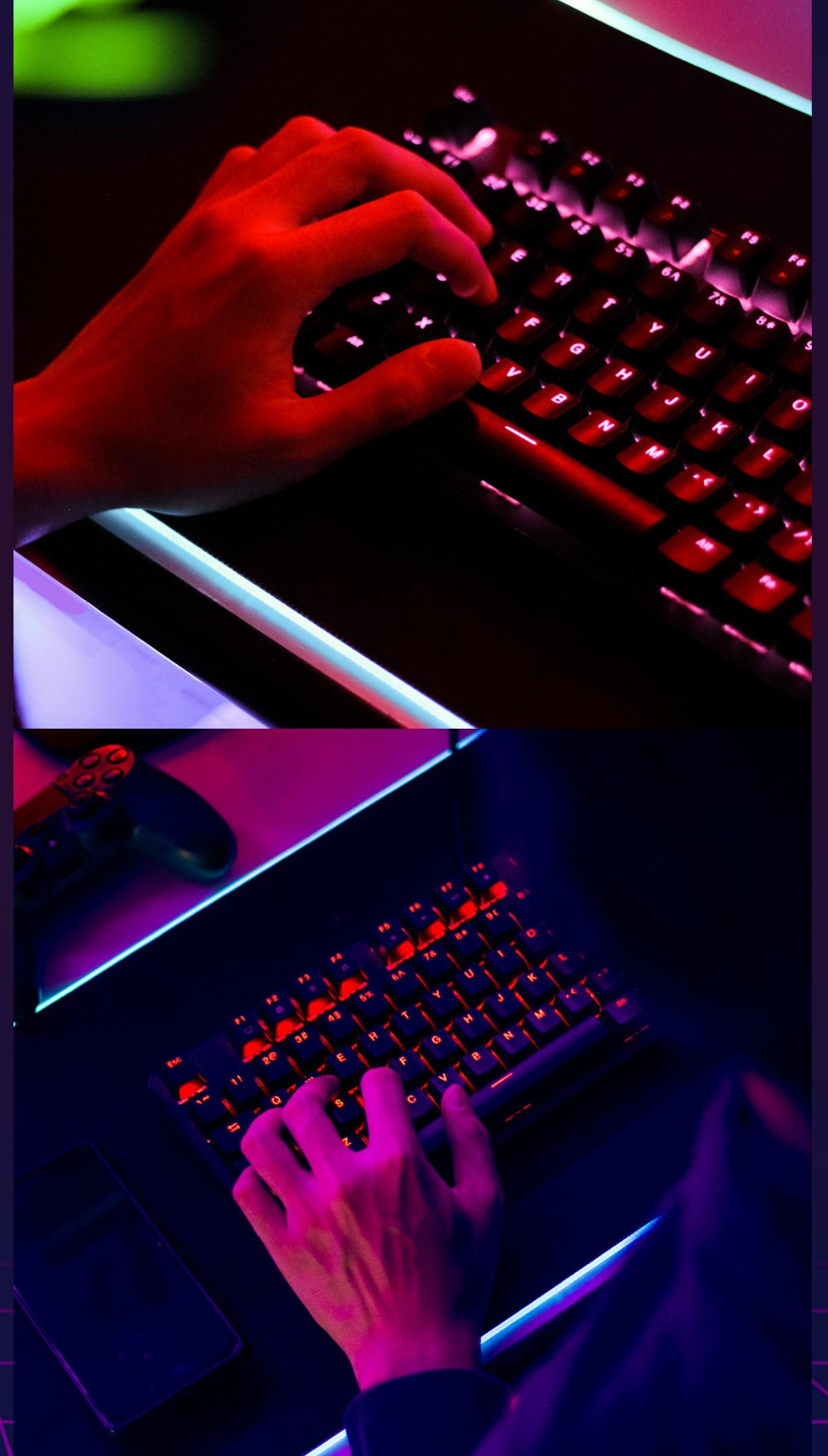
DISPLAY AND LOAD IMAGE



Initialize a window or screen for display and use the load attribute to add the image in the game.

```
# create screen
screen = pygame.display.set_mode((800, 600))
background = pygame.image.load("background.jpg")

pygame.display.set_caption("Space Invaders")
icon = pygame.image.load("space.png")
pygame.display.set_icon(icon)
```





BLIT



Draws a source Surface onto this Surface. The draw can be positioned with the best argument. The best argument can either be a pair of coordinates representing the position of bilt.

```
screen.blit(score_value, (x, y))
```



Keyboard Keys

```
if event.key == pygame.K_LEFT:  
    playerX_change = -0.1  
if event.key == pygame.K_RIGHT:  
    playerX_change = 0.1  
if event.key == pygame.K_SPACE:  
    if bullet_state == "ready":  
        bulletSound = mixer.Sound('Laser.wav')  
        bulletSound.play()
```





QUIT

Uninitialize all pygame modules that have previously been initialized. When the Python interpreter shuts down, this method is called regardless. It terminates all the pygame resources and continue.

```
for event in pygame.event.get():
    if event.type == pygame.QUIT:
        running = False
```

E-GAMES QUOTE



“Sometimes life is like a video game. When things get harder, and the obstacles get tougher, it just means you leveled up.”



INFORMATIONS



Pygame Front Page —
pygame v2.1.1 documentation



THANK YOU



vidishasawant10/spacelnvader (github.com)

