* Create a folder on Onedrive-> Call it Space Invader game.
* In VS Code, open ‘Space invader game’ folder
* In Visual studio, click View->Terminal. Type-> pip install pygame
* Add a file in the project called main.py

In main.py:

import **pygame**

*#Initialise the pygame*

**pygame**.**init**()

*#create the screen: width 800, height 600*

screen=**pygame**.**display**.**set\_mode**((800,600))

*#Title & Icon*

**pygame**.**display**.**set\_caption**("Space Invaders")

* Start the game loop and check for the quit button

*#Game loop*

*#Checking for QUIT button pressed*

running = True

while running:

    for event in **pygame**.**event**.**get**():

        if event.type==**pygame**.QUIT:

            running=False

* Go to flaticon.com. Search for spaceship. Download 32x32 size(in pixels). Download ‘png’. Add it to the project in VS code.

icon= **pygame**.**image**.**load**("ufo.png")

**pygame**.**display**.**set\_icon**(icon)

* Change background. Anything which must be consistent, should be inside the game loop. Add a tuple inside the fill().

<https://www.rapidtables.com/convert/color/hex-to-rgb.html>

#RGB- Red, Green & Blue

*#Background color*

    screen.**fill**((0,0,0))

**pygame**.**display**.**update**()

* Add an image to the game window. Go to flaticon.com. Search for ‘arcade space’. Choose ‘png’. Download 62x64 size(in pixels). Add it to the project in VS code.

*#Player*

playerImg=**pygame**.**image**.**load**('player.png')

playerX=370

playerY=480

def **player**(x,y):

*#Draws the player on the screen*

    screen.**blit**(playerImg, (x, y))

* Add player() before the pygame .display.update(), inside the while loop

**player**(playerX, playerY)

**Keyboard input controls & key pressed event**

* Add this inside the while loop:

*#if keystroke is pressed check whether its right or left*

    if event.type==**pygame**.KEYDOWN:

        if event.key==**pygame**.K\_LEFT:

            playerX\_change=-0.3

        if event.key==**pygame**.K\_RIGHT:

            playerX\_change=0.3

    if event.type==**pygame**.KEYUP:

        if event.key==**pygame**.K\_LEFT or event.key==**pygame**.K\_RIGHT:

            playerX\_change=0

*#Change the position of the player horizontally*

    playerX+=playerX\_change

* Add this under #player

playerX\_change=0

**Adding boundaries to the game**

*#Adding boundaries to the movement of the player.*

    if playerX<=0:

        playerX=0

    elif playerX>=736:  *#736=800(total width of screen)-64(size of spaceship 64x64)*

        playerX=736

**Creating the enemy**

* Go to flaticon.com. Search for ‘space invader’. Download 64x64 size (in pixels). Download ‘png’. Add it to the project in VS code. Call it enemy.png
* Add this code outside the while loop

*#Enemy*

enemyImg=**pygame**.**image**.**load**('enemy.png')

enemyX=370

enemyY= 490

enemyX\_change=0

def **enemy**(x,y):

    screen.**blit**(enemyImg,(x,y))

**Stopped video at 55:48**

Space Invader game: <https://www.youtube.com/watch?v=FfWpgLFMI7w&t=1370s>