

File Edit Selection View Go Run ... ← → Search Python Debugger: C... import streamlit as st Untitled-1 BLACKBOX

1 yy 1 test.py 1 cv\_1.py 2 cv\_2.py 3 cv\_3.py

```
C:\Users\pc\Downloads> cv_1.py
1 import cv2
2 img = cv2.imread("C:\Users\pc\Downloads\highway.jpg") # Read the image
3 cv2.imshow("Output Image", img) # Show image
4 cv2.waitKey(0) # Wait for key press
5 cv2.destroyAllWindows() # Close window
6
```

Output Image

PROBLEMS DASHBOARD PORTS

PS C:\Users\pc\Downloads> & 'c:\Users\pc\AppData\Local\Programs\Python\Python310\python.exe' 'c:\Users\pc\.vscode\extensions\ms-python.debugger-2025.16.0-win32-x64\bu...ndled\libs\debugpy\launcher' '49726' '--' 'C:\Users\pc\Downloads\cv\_1.py'

0 4 BLACKBOX Agent Open Website Ln 2, Col 52 Spaces: 4 UTF-8 CRLF Python 3.10.0 Go Live BLACKBOX: Open Chat 04:21 PM 14-12-2025

File Edit Selection View Go Run ... ← → Search Python Debugger: C... import streamlit as st Untitled-1 BLACKBOX

1 yy 1 test.py 1 cv\_1.py 2 cv\_2.py 3 cv\_3.py

```
C:\Users\pc\Downloads> cv_2.py
1 import cv2
2 img = cv2.imread(r"C:\Users\pc\Downloads\highway.jpg",0)
3 cv2.imshow("window", img)
4 cv2.imwrite('new_image.jpg', img)
5 cv2.waitKey(0)
6 cv2.destroyAllWindows()
7
```

window

PROBLEMS DASHBOARD PORTS

PS C:\Users\pc\Downloads> & 'c:\Users\pc\AppData\Local\Programs\Python\Python310\python.exe' 'c:\Users\pc\.vscode\extensions\ms-python.debugger-2025.16.0-win32-x64\bu...ndled\libs\debugpy\launcher' '62571' '--' 'C:\Users\pc\Downloads\cv\_2.py'

PS C:\Users\pc\Downloads> & cd 'C:\Users\pc\Downloads'; & 'c:\Users\pc\AppData\Local\Programs\Python\Python310\python.exe' 'c:\Users\pc\.vscode\extensions\ms-python.debugger-2025.16.0-win32-x64\bu...ndled\libs\debugpy\launcher' '58953' '--' 'C:\Users\pc\Downloads\cv\_4.py'

PS C:\Users\pc\Downloads> & cd 'C:\Users\pc\Downloads'; & 'c:\Users\pc\AppData\Local\Programs\Python\Python310\python.exe' 'c:\Users\pc\.vscode\extensions\ms-python.debugger-2025.16.0-win32-x64\bu...ndled\libs\debugpy\launcher' '57139' '--' 'C:\Users\pc\Downloads\cv\_2.py'

[ WARN@0:0.037] global loadsave.cpp:275 cv::findDecoder imread ('C:\Users\pc\Downloads\photo.jpg'): can't open/read file: check file path/integrity

PS C:\Users\pc\Downloads> & cd 'C:\Users\pc\Downloads'; & 'c:\Users\pc\AppData\Local\Programs\Python\Python310\python.exe' 'c:\Users\pc\.vscode\extensions\ms-python.debugger-2025.16.0-win32-x64\bu...ndled\libs\debugpy\launcher' '57261' '--' 'C:\Users\pc\Downloads\cv\_2.py'

0 4 BLACKBOX Agent Open Website Ln 7, Col 1 Spaces: 4 UTF-8 CRLF Python 3.10.0 Go Live BLACKBOX: Open Chat 04:23 PM 14-12-2025

A screenshot of a Jupyter Notebook interface. On the left, there are several code cells labeled test.py, cv\_1.py, cv\_2.py, and cv\_3.py. The cv\_3.py cell contains the following Python code:

```
1 import cv2
2 img = cv2.imread("C:/Users/pc/Downloads/highway.jpg")
3 print("Dimensions of image: ", img.shape)
4 width = 500
5 height = 500
6 dim=(width, height)
7 resized=cv2.resize(img, dim)
8 cv2.imshow("window", resized)
9 cv2.waitKey(0)
10 cv2.destroyAllWindows()
```

The notebook also shows a terminal window with command-line output related to the image loading process. On the right, there is a large image window titled "window" showing a highway scene with multiple cars. The status bar at the bottom indicates the Python version is 3.10.0 and the date is 14-12-2025.

A screenshot of a Jupyter Notebook interface. On the left, there are several code cells labeled test.py, cv\_1.py, cv\_2.py, and cv\_3.py. The cv\_4.py cell contains the following Python code:

```
1 import cv2
2 import numpy as np
3
4 # Read image
5 img = cv2.imread("C:/Users/pc/Downloads/highway.jpg")
6
7 # Check if image loaded
8 if img is None:
9     print("Error: Image not found or path is incorrect")
10    exit()
11
12 # Resize image
13 width = 400
14 height = 300
15 dim = (width, height)
16 resized = cv2.resize(img, dim)
17
18 # Kernel
19 kernel = np.ones((5,5), np.uint8)
20
21 # Morphological operations
22 erosion = cv2.erode(resized, kernel, iterations=1)
23 dilation = cv2.dilate(resized, kernel, iterations=1)
24
25 # Show images
26 cv2.imshow("Original", resized)
27 cv2.imshow("Erosion", erosion)
28 cv2.imshow("Dilation", dilation)
29
30 cv2.waitKey(0) # Wait until key press
31 cv2.destroyAllWindows()
```

The notebook displays three image windows side-by-side: "Original", "Erosion", and "Dilation". The "Original" window shows the original highway image. The "Erosion" window shows the image with some features removed (smaller objects). The "Dilation" window shows the image with some features enlarged (larger objects). The status bar at the bottom indicates the Python version is 3.10.0 and the date is 14-12-2025.

```
1 import cv2
2 import numpy as np
3
4 # Read image
5 img = cv2.imread(r'C:\Users\pc\Downloads\highway.jpg')
6
7 # Check if image loaded
8 if img is None:
9     print("Error: Image not found or path is incorrect")
10    exit()
11
12 # Resize image
13 width = 300
14 height = 208
15 dim = (width, height)
16 resized = cv2.resize(img, dim)
17
18 # Kernel
19 kernel = np.ones((5,5), np.uint8)
20
21 # Morphological operations
22 #erosion = cv2.erode(resized, kernel, iterations=1)
23 #dilation = cv2.dilate(resized, kernel, iterations=1)
24 opening=cv2.morphologyEx(resized, cv2.MORPH_OPEN, kernel)
25 closing=cv2.morphologyEx(resized, cv2.MORPH_CLOSE, kernel)
26
27 # Show images
28 cv2.imshow("Original", resized)
29 #cv2.imshow("Erosion", erosion)
30 #cv2.imshow("Dilation", dilation)
31 cv2.imshow("Opening", opening)
32 cv2.imshow("Closing", closing)
33
34 cv2.waitKey(0) # Wait until key press
35 cv2.destroyAllWindows()
```

```
1 import cv2
2 import numpy as np
3
4 # Read image
5 img = cv2.imread(r'C:\Users\pc\Downloads\highway.jpg')
6
7 # Check if image loaded
8 if img is None:
9     print("Error: Image not found or path is incorrect")
10    exit()
11
12 # Resize image
13 width = 300
14 height = 208
15 dim = (width, height)
16 resized = cv2.resize(img, dim)
17
18 # Kernel
19 kernel = np.ones((5,5), np.uint8)
20
21 # Morphological operations
22 #erosion = cv2.erode(resized, kernel, iterations=1)
23 #dilation = cv2.dilate(resized, kernel, iterations=1)
24 opening=cv2.morphologyEx(resized, cv2.MORPH_OPEN, kernel)
25 closing=cv2.morphologyEx(resized, cv2.MORPH_CLOSE, kernel)
26
27 # Show images
28 cv2.imshow("Original", resized)
29 #cv2.imshow("Erosion", erosion)
30 #cv2.imshow("Dilation", dilation)
31 cv2.imshow("Opening", opening)
32 cv2.imshow("Closing", closing)
33
34 cv2.waitKey(0) # Wait until key press
35 cv2.destroyAllWindows()
```

A screenshot of a Windows desktop environment. On the left is a code editor window titled 'yy' showing Python code for image processing using OpenCV. The code reads a highway image, applies various morphological operations like erosion, dilation, opening, closing, gradient, and top-hat, and then displays the original image and the processed gradient image. On the right, there are two image windows: one titled 'Gradient' showing the processed gradient image with colored overlays, and another titled 'Original' showing the original highway image. The taskbar at the bottom shows several pinned icons and the system tray on the right.

```
C:\> Users > pc > Downloads > cv_4.py > ...  
1 import cv2  
2 import numpy as np  
3 img = cv2.imread('C:/Users/pc/Downloads/highway.jpg')  
4 width = 400  
5 height = 308  
6 dim = (width, height)  
7 resized = cv2.resize(img, dim)  
8 kernel = np.ones((5,5), np.uint8)  
9 # Morphological operations  
10 #erosion = cv2.erode(resized, kernel, iterations=1)  
11 #dilation = cv2.dilate(resized, kernel, iterations=1)  
12 #opening=cv2.morphologyEx(resized, cv2.MORPH_OPEN,kernel)  
13 #closing=cv2.morphologyEx(resized, cv2.MORPH_CLOSE,kernel)  
14 gradient=cv2.morphologyEx(resized, cv2.MORPH_GRADIENT,kernel)  
15 # Show Images  
16 cv2.imshow("Original", resized)  
17 #cv2.imshow("Erosion", erosion)  
18 #cv2.imshow("Dilation", dilation)  
19 #cv2.imshow("Opening",opening)  
20 #cv2.imshow("Closing",closing)  
21 cv2.imshow("Gradient",gradient)  
22 cv2.waitKey(0) # Wait until key press  
23 cv2.destroyAllWindows()
```

A screenshot of a Windows desktop environment. On the left is a code editor window titled 'yy' showing Python code for image processing using OpenCV. The code is identical to the one in the first screenshot, reading a highway image and applying various morphological operations. On the right, there are three image windows: one titled 'Original' showing the original highway image, one titled 'Blackhat' showing the blackhat morphology result, and one titled 'Tophat' showing the top-hat morphology result. The taskbar at the bottom shows several pinned icons and the system tray on the right.

```
C:\> Users > pc > Downloads > cv_4.py > ...  
1 import cv2  
2 import numpy as np  
3 img = cv2.imread('C:/Users/pc/Downloads/highway.jpg')  
4 width = 400  
5 height = 308  
6 dim = (width, height)  
7 resized = cv2.resize(img, dim)  
8 kernel = np.ones((5,5), np.uint8)  
9 # Morphological operations  
10 #erosion = cv2.erode(resized, kernel, iterations=1)  
11 #dilation = cv2.dilate(resized, kernel, iterations=1)  
12 #opening=cv2.morphologyEx(resized, cv2.MORPH_OPEN,kernel)  
13 #closing=cv2.morphologyEx(resized, cv2.MORPH_CLOSE,kernel)  
14 gradient=cv2.morphologyEx(resized, cv2.MORPH_GRADIENT,kernel)  
15 tophat=cv2.morphologyEx(resized, cv2.MORPH_TOPHAT,kernel)  
16 blackhat=cv2.morphologyEx(resized, cv2.MORPH_BLACKHAT,kernel)  
17 # Show Images  
18 cv2.imshow("Original", resized)  
19 #cv2.imshow("Erosion", erosion)  
20 #cv2.imshow("Dilation", dilation)  
21 #cv2.imshow("Opening",opening)  
22 #cv2.imshow("Closing",closing)  
23 #cv2.imshow("Gradient",gradient)  
24 cv2.imshow("Tophat", tophat)  
25 cv2.imshow("Blackhat", blackhat)  
26 cv2.waitKey(0) # Wait until key press  
27 cv2.destroyAllWindows()
```

A screenshot of the Visual Studio Code (VS Code) interface. On the left, the code editor shows a Python script named `cv_5.py` with the following code:

```
C:\Users\pc> python cv_5.py
1 import cv2
2 import numpy as np
3 img = cv2.imread('C:/Users/pc/Downloads/highway.jpg')
4 height = 308
5 dim = (width, height)
6 resized = cv2.resize(img, dim)
7 cv2.imshow('Original', resized)
8 #flip = cv2.flip(resized,1)
9 #cv2.imshow('Horizontal', flip)
10 #cv2.imshow('Vertical', flip_1)
11 #cv2.imshow('Horizontal & Vertical', flip_2)
12 cv2.waitKey(0)
13 cv2.destroyAllWindows()
```

Two windows titled "Original" and "Horizontal & Vertical" are displayed side-by-side, both showing a wide-angle view of a multi-lane highway with several cars. The "Original" window shows the image as it was loaded, while the "Horizontal & Vertical" window shows the image with horizontal and vertical axis lines overlaid.

A screenshot of the Visual Studio Code (VS Code) interface. On the left, the code editor shows a Python script named `cv_6.py` with the following code:

```
C:\Users\pc> python cv_6.py
1 import cv2
2 img = cv2.imread('C:/Users/pc/Downloads/highway.jpg')
3 print('Dimensions of Original image:', img.shape)
4 scale = 150
5 width = int(img.shape[1]*scale / 100)
6 height = int(img.shape[0]*scale / 100)
7 dim = (width, height)
8 resized = cv2.resize(img, dim, interpolation=cv2.INTER_LINEAR)
9 print('Dimensions of Resized Image:', resized.shape)
10 cv2.imshow('Resized', resized)
11 cv2.imshow('Original', img)
12 cv2.waitKey(0)
13 cv2.destroyAllWindows()
```

Two windows titled "Original" and "Resized" are displayed side-by-side. The "Original" window shows the full highway image, while the "Resized" window shows a smaller version of the same highway image, indicating a 150% resize factor.

A screenshot of a code editor (VS Code) showing Python code for OpenCV drawing operations. The code imports cv2 and numpy, reads a highway image, and performs various drawing functions like line, rectangle, circle, and polygon. It also adds text and shows the result. The resulting image shows a highway scene with overlaid geometric shapes (yellow lines, green rectangles, a blue line, a purple circle) and the word "HELLO!".

```
1 import cv2
2 import numpy as np
3 #img = cv2.imread("C:/Users/pc/Downloads/highway.jpg",cv2.IMREAD_COLOR)
4 img = np.zeros(shape=[600,600,3],dtype='uint8')
5 cv2.line(img,(0,0),(150,150),(255,0,0),2)
6 cv2.rectangle(img,(200,150),(250,300),(0,255,0),3)
7 cv2.circle(img,(300,75),(70,(255,0,255),3)
8 pts_polygon = np.array([[100,50],[100,300],[500,50],[500,300]], np.int32)
9 cv2.polylines(img,[pts_polygon],True,(0,255,255),3)
10 font = cv2.FONT_HERSHEY_DUPLEX
11 cv2.putText(img,'HELLO!',(10,500), font, 3,(200,255,255),8,cv2.LINE_AA)
12 cv2.imshow('image',img)
13 cv2.waitKey(0)
14 cv2.destroyAllWindows()
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\pc\Downloads> cd 'c:/Users/pc/AppData/Local/Programs/n.debugpy-2025.16.0-win32-x64/bundled/libs/debugpy\launcher' '63069' '--' 'c:/Users/pc/Downloads/n.debugpy-2025.16.0-win32-x64/bundled/libs/debugpy\launcher' '63117' '--' 'c:/Users/pc/Downloads/n.debugpy-2025.16.0-win32-x64/bundled/libs/debugpy\launcher' '57526' '--' 'c:/Users/pc/Downloads/n.debugpy-2025.16.0-win32-x64/bundled/libs/debugpy\launcher' '51018' '--' 'c:/Users/pc/Downloads\cv_7.py'
```

LN 4, COL 28 SPACES: 4 UTF-8 CRLF PYTHON 3.10.0 GO LIVE BLACKBOX: Open Chat

A screenshot of a code editor (VS Code) showing Python code for image transformation using OpenCV's warpAffine function. The code reads a highway image, defines a transformation matrix, and applies it to the image. Two windows are shown: "Original Image" and "Shifted Image". The "Shifted Image" window shows the original highway image shifted horizontally.

```
1 import cv2
2 import numpy as np
3 img = cv2.imread('C:/Users/pc/Downloads/highway.jpg')
4 column= img.shape[1]
5 row= img.shape[0]
6 s=np.float32([(1,0,150),(0,1,70)])
7 shifted=cv2.warpAffine(img,s,(column,row))
8 cv2.imshow('Original Image',img)
9 cv2.imshow('Shifted Image',shifted)
10 cv2.waitKey(0)
11 cv2.destroyAllWindows()
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\pc\Downloads> cd 'c:/Users/pc/AppData/Local/Programs/Python/Python310/python.exe' 'c:/Users/pc/.vscode/extensions/ms-python/n.debugpy-2025.16.0-win32-x64/bundled/libs/debugpy\launcher' '51104' '--' 'c:/Users/pc/Downloads\cv_8.py'
Traceback (most recent call last):
  File "c:/Users/pc/Downloads\cv_8.py", line 9, in <module>
    cv2.imshow('Shifted Image', shifted)
AttributeError: 'str' object has no attribute 'imshow'
PS C:\Users\pc\Downloads> cd 'c:/Users/pc/AppData/Local/Programs/Python/Python310/python.exe' 'c:/Users/pc/.vscode/extensions/ms-python/n.debugpy-2025.16.0-win32-x64/bundled/libs/debugpy\launcher' '52455' '--' 'c:/Users/pc/Downloads\cv_8.py'
```

LN 9, COL 28 SPACES: 4 UTF-8 CRLF PYTHON 3.10.0 GO LIVE BLACKBOX: Open Chat

File Edit Selection View Go Run ... ↶ → Search

C:\Users\pc > Downloads > cv\_9.py > ...

```
1 import cv2
2 img= cv2.imread('C:/Users/pc/Downloads/highway.jpg')
3 row=img.shape[1]
4 column=img.shape[0]
5 center=(column/2, row/2)
6 angle=180
7 r = cv2.getRotationMatrix2D(center,angle,1)
8 rotate = cv2.warpAffine(img,r,(column,row))
9 cv2.imshow('Rotated ',rotate)
10 cv2.waitKey(0)
11 cv2.destroyAllWindows()
```

Output window:

```
PS C:\Users\pc\Downloads> c; cd 'c:/Users/pc/Downloads'; & 'c:/Users/pc/AppData/Local/Programs/Python/Python310/python.exe' 'c:/Users/pc/.vscode/extensions/ms-python.python.debugpy-2025.16.0-win32-x64/bundled/libs/debugpy/launcher' '54521' '--' 'c:/Users/pc/Downloads/cv_9.py'
File "c:/Users/pc/Downloads/cv_9.py", line 2
    img= cv2.imread("C:/Users/pc/Downloads/highway.jpg")
^
SyntaxError: (unicode error) 'unicodeescape' codec can't decode bytes in position 2-3: truncated \UXXXXXXX escape
PS C:\Users\pc\Downloads> c; cd 'c:/Users/pc/Downloads'; & 'c:/Users/pc/AppData/Local/Programs/Python/Python310/python.exe' 'c:/Users/pc/.vscode/extensions/ms-python.python.debugpy-2025.16.0-win32-x64/bundled/libs/debugpy/launcher' '54557' '--' 'c:/Users/pc/Downloads/cv_9.py'
```

Terminal window:

```
Ln 2, Col 18 Spaces: 4 UTF-8 CRLF Python 3.10.0 Go Live BLACKBOXAI: Open Chat
```

File Edit Selection View Go Run ... ↶ → Search

C:\Users\pc > Downloads > cv\_10.py > ...

```
1 import numpy as np
2 import cv2
3 img = cv2.imread('C:/Users/pc/Downloads/highway.jpg')
4 threshold_value = 100
5 _,binary_threshold = cv2.threshold(img,threshold_value,255,cv2.THRESH_BINARY)
6 cv2.imshow('Original',img)
7 cv2.imshow('Binary Threshold',binary_threshold)
8 cv2.waitKey(0)
9 cv2.destroyAllWindows()
```

Output window:

```
PS C:\Users\pc\Downloads> c; cd 'c:/Users/pc/Downloads'; & 'c:/Users/pc/AppData/Local/Programs/Python/Python310/python.exe' 'c:/Users/pc/.vscode/extensions/ms-python.python.debugpy-2025.16.0-win32-x64/bundled/libs/debugpy/launcher' '54785' '--' 'c:/Users/pc/Downloads/cv_10.py'
> - Expected Ptr<cv::UMat> for argument 'mat'

PS C:\Users\pc\Downloads> c; cd 'c:/Users/pc/Downloads'; & 'c:/Users/pc/AppData/Local/Programs/Python/Python310/python.exe' 'c:/Users/pc/.vscode/extensions/ms-python.python.debugpy-2025.16.0-win32-x64/bundled/libs/debugpy/launcher' '54473' '--' 'c:/Users/pc/Downloads/cv_10.py'
PS C:\Users\pc\Downloads> c; cd 'c:/Users/pc/Downloads'; & 'c:/Users/pc/AppData/Local/Programs/Python/Python310/python.exe' 'c:/Users/pc/.vscode/extensions/ms-python.python.debugpy-2025.16.0-win32-x64/bundled/libs/debugpy/launcher' '64272' '--' 'c:/Users/pc/Downloads/cv_10.py'
```

Terminal window:

```
Ln 4, Col 21 Spaces: 4 UTF-8 CRLF Python 3.10.0 Go Live BLACKBOXAI: Open Chat
```

The screenshot shows a Windows desktop with a Python development environment open in a window. The code in the editor is as follows:

```
1 import cv2
2 img = cv2.imread('C:/Users/pc/Downloads/highway.jpg')
3 resize = cv2.resize(img,(400,400))
4 ksize=(7, 7)
5 sigmaX = 0
6 sigmaY = 0
7 blur = cv2.GaussianBlur(resize,ksize,sigmaX)
8 cv2.imshow('Input',resize)
9 cv2.imshow('Output',blur)
10 cv2.waitKey(0)
11 cv2.destroyAllWindows()
```

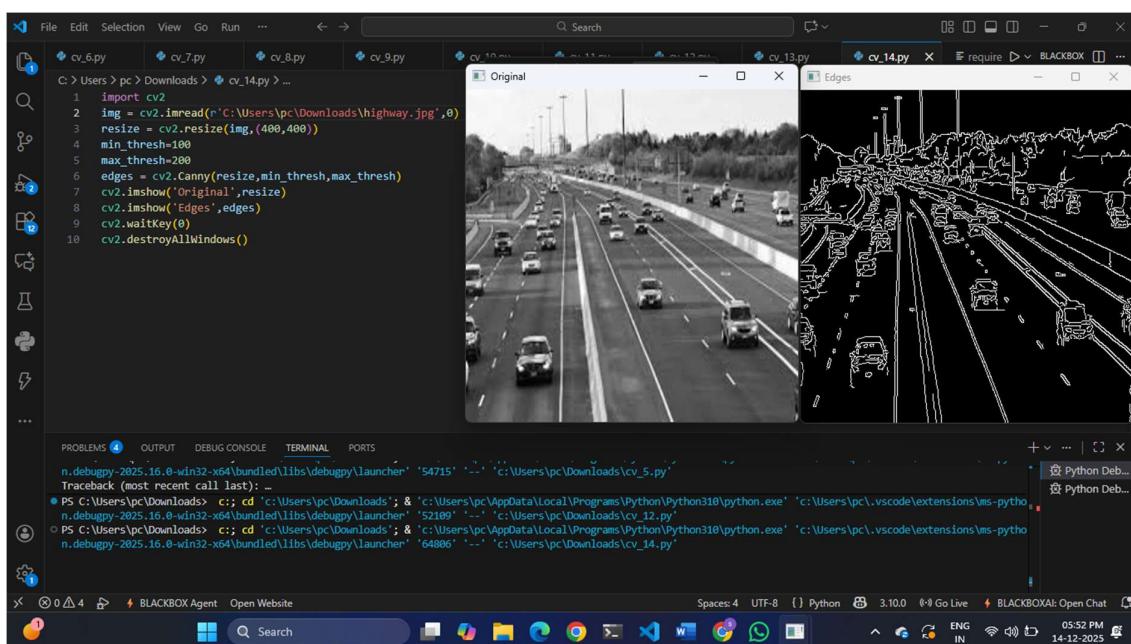
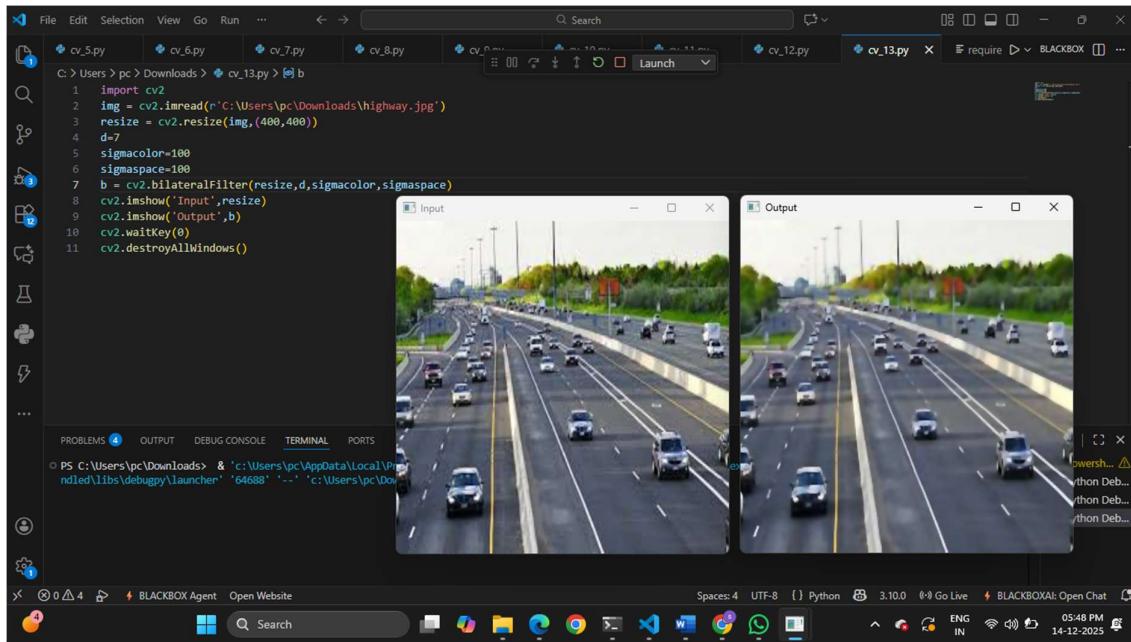
Two windows titled "Input" and "Output" are displayed side-by-side. Both windows show a wide-angle photograph of a multi-lane highway with several cars in motion. The "Input" window shows the original image with some noise, while the "Output" window shows the same image processed with a Gaussian blur, resulting in a smoother appearance with less noise.

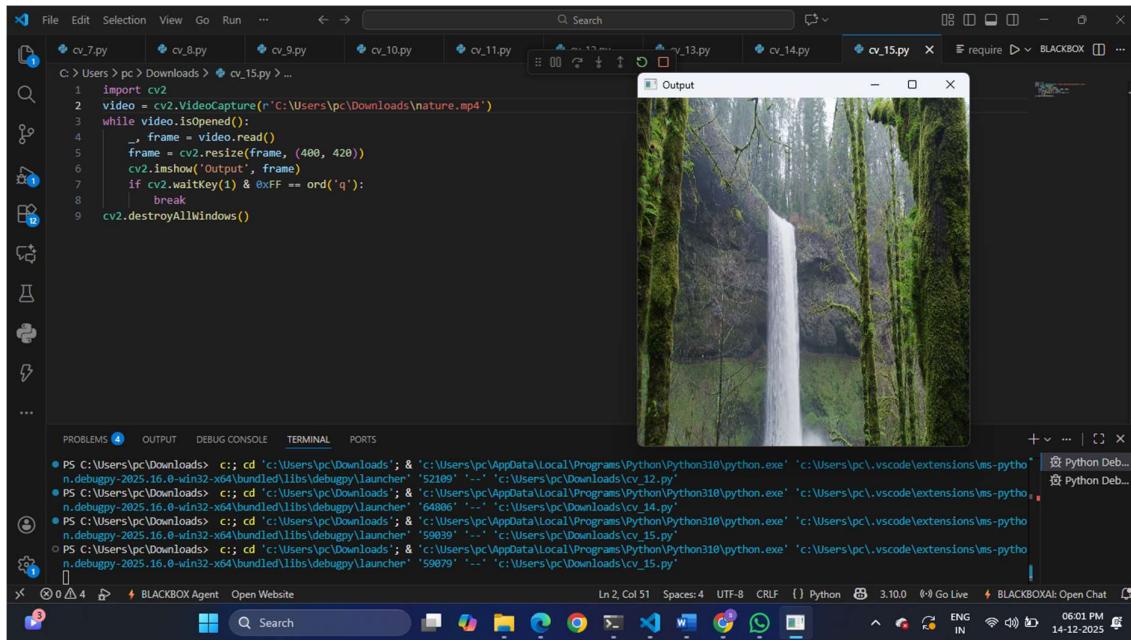
The screenshot shows a Microsoft Visual Studio Code (VS Code) window with the following details:

- File Explorer:** Shows files like cv\_4.py, cv\_5.py, cv\_6.py, cv\_7.py, cv\_11.py, and cv\_12.py.
- Search Bar:** Contains the text "cv\_12.py".
- Code Editor:** Displays Python code for reading an image, resizing it, applying a median blur, and displaying the result. The code is as follows:

```
1 import cv2
2 img = cv2.imread('C:\Users\pc\Downloads\highway.jpg')
3 resize = cv2.resize(img,(400,400))
4 kernel=3
5 blur = cv2.medianBlur(resize,kernel)
6 cv2.imshow('Input',resize)
7 cv2.imshow('Output',blur)
8 cv2.waitKey(0)
9 cv2.destroyAllWindows()
```

- Output View:** Shows two windows titled "Input" and "Output". The "Input" window displays a highway scene with multiple cars. The "Output" window displays the same scene after applying a median blur, resulting in a smoother image.
- Terminal:** Shows command-line output related to Python debugging and launching.
- Bottom Status Bar:** Includes icons for BLACKBOX Agent, Open Website, Spaces: 4, UTF-8, Python, 3.10.0, Go Live, BLACKBOX Agent, and Open Chat.





File Edit Selection View Go Run ... ← → Search cv\_7.py cv\_8.py cv\_9.py cv\_10.py cv\_11.py cv\_12.py cv\_13.py cv\_14.py cv\_15.py cv\_16.py cv\_17.py

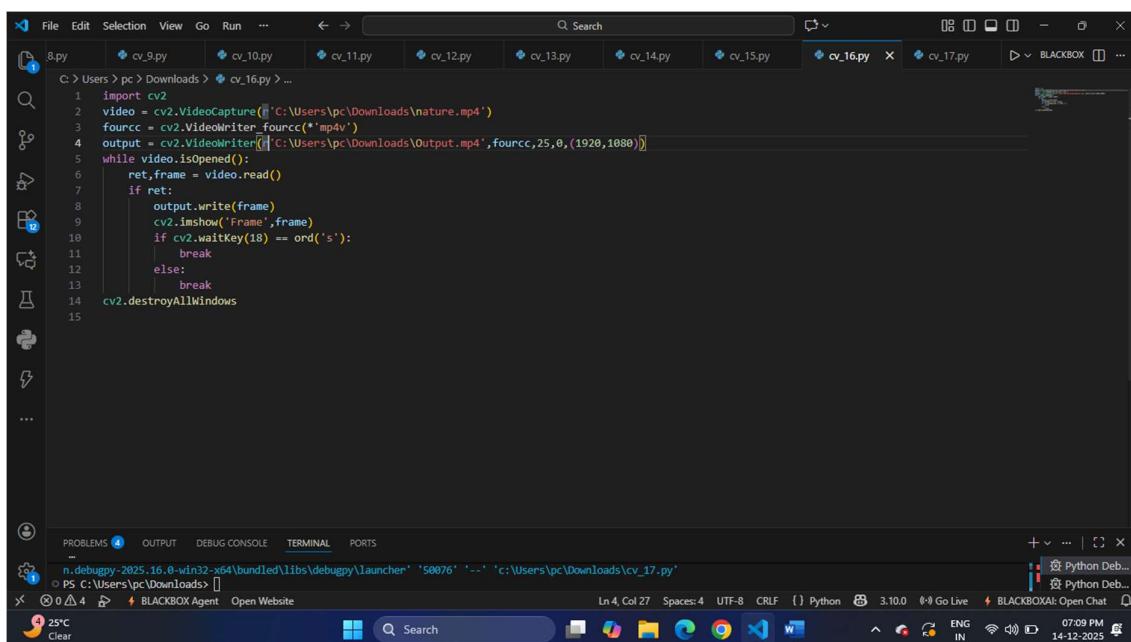
```
1 import cv2
2 video = cv2.VideoCapture("C:/Users/pc/Downloads/nature.mp4")
3 while video.isOpened():
4     _, frame = video.read()
5     frame = cv2.resize(frame, (400, 420))
6     cv2.imshow('Output', frame)
7     if cv2.waitKey(1) & 0xFF == ord('q'):
8         break
9 cv2.destroyAllWindows()
```

PROBLEMS 4 OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\pc\Downloads> c: cd 'c:/Users/pc/Downloads'; & 'c:/Users/pc/AppData/Local/Programs/Python/Python310/python.exe' 'c:/Users/pc/.vscode/extensions/ms-python-n_debugpy-2025.16.0-win32-x64/bundled/libs/debugpy/launcher' '52109' '--' 'c:/Users/pc/Downloads/cv_12.py'
PS C:\Users\pc\Downloads> c: cd 'c:/Users/pc/Downloads'; & 'c:/Users/pc/AppData/Local/Programs/Python/Python310/python.exe' 'c:/Users/pc/.vscode/extensions/ms-python-n_debugpy-2025.16.0-win32-x64/bundled/libs/debugpy/launcher' '64886' '--' 'c:/Users/pc/Downloads/cv_14.py'
PS C:\Users\pc\Downloads> c: cd 'c:/Users/pc/Downloads'; & 'c:/Users/pc/AppData/Local/Programs/Python/Python310/python.exe' 'c:/Users/pc/.vscode/extensions/ms-python-n_debugpy-2025.16.0-win32-x64/bundled/libs/debugpy/launcher' '59039' '--' 'c:/Users/pc/Downloads/cv_15.py'
PS C:\Users\pc\Downloads> c: cd 'c:/Users/pc/Downloads'; & 'c:/Users/pc/AppData/Local/Programs/Python/Python310/python.exe' 'c:/Users/pc/.vscode/extensions/ms-python-n_debugpy-2025.16.0-win32-x64/bundled/libs/debugpy/launcher' '59079' '--' 'c:/Users/pc/Downloads/cv_15.py'
```

LN 1, COL 1 Spaces: 4 UTF-8 CRLF Python 3.10.0 Go Live BLACKBOX: Open Chat

0 4 🔍 BLACKBOX Agent Open Website Search



File Edit Selection View Go Run ... ← → Search cv\_8.py cv\_9.py cv\_10.py cv\_11.py cv\_12.py cv\_13.py cv\_14.py cv\_15.py cv\_16.py cv\_17.py

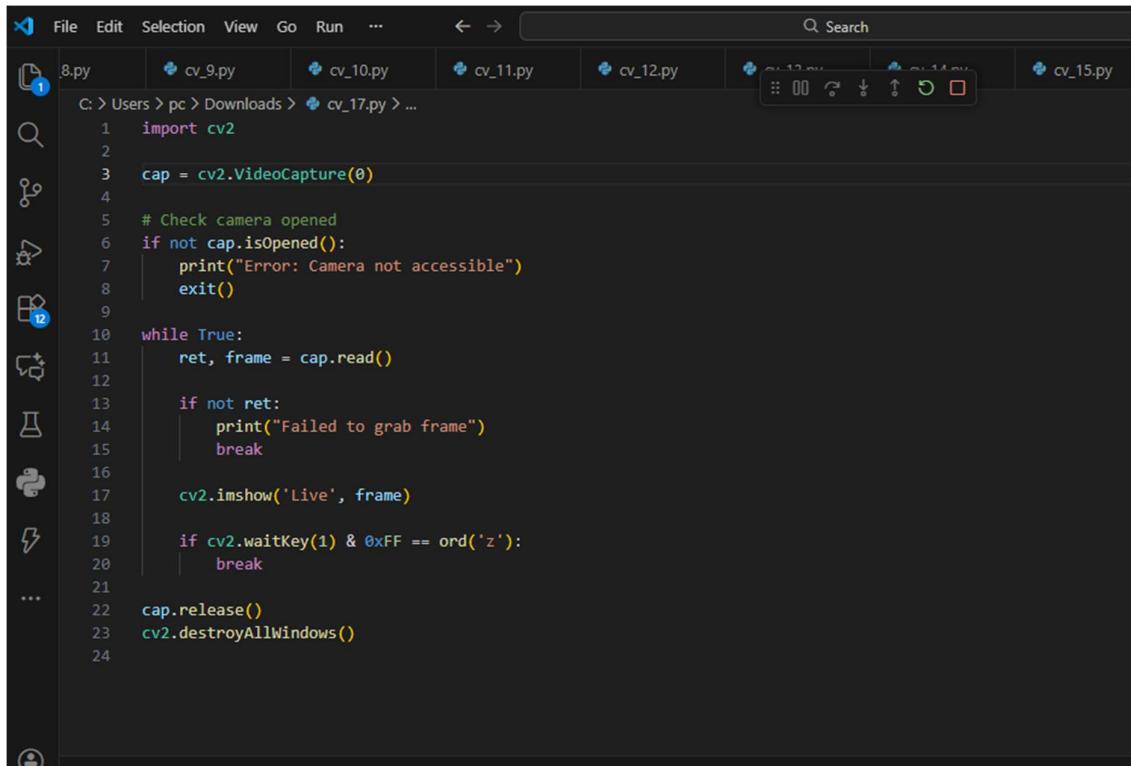
```
1 import cv2
2 video = cv2.VideoCapture("C:/Users/pc/Downloads/nature.mp4")
3 fourcc = cv2.VideoWriter_fourcc(*'mp4v')
4 output = cv2.VideoWriter("C:/Users/pc/Downloads/output.mp4",fourcc,25,0,(1920,1080))
5 while video.isOpened():
6     ret,frame = video.read()
7     if ret:
8         output.write(frame)
9         cv2.imshow('frame',frame)
10        if cv2.waitKey(18) == ord('s'):
11            break
12        else:
13            break
14 cv2.destroyAllWindows()
```

PROBLEMS 4 OUTPUT DEBUG CONSOLE TERMINAL PORTS

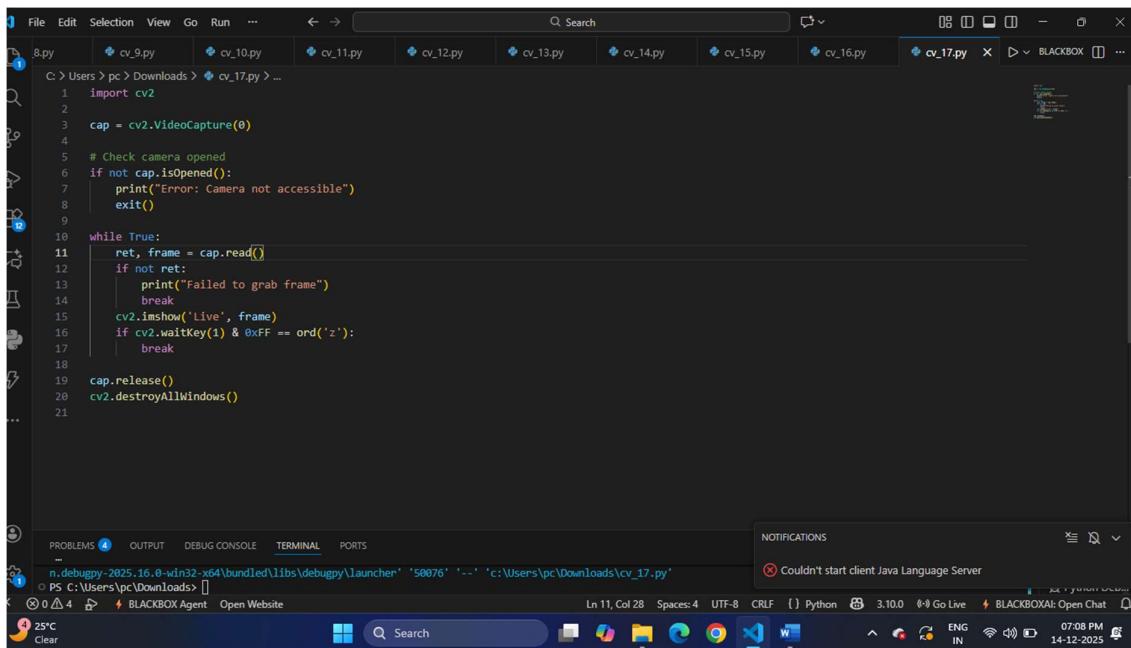
```
n_debugpy-2025.16.0-win32-x64/bundled/libs/debugpy/launcher' '50076' '--' 'c:/Users/pc/Downloads/cv_17.py'
```

LN 4, COL 27 Spaces: 4 UTF-8 CRLF Python 3.10.0 Go Live BLACKBOX: Open Chat

25°C Clear



```
File Edit Selection View Go Run ... ⏪ ⏩ Search
8.py cv_9.py cv_10.py cv_11.py cv_12.py cv_13.py cv_14.py cv_15.py
C: > Users > pc > Downloads > cv_17.py > ...
1 import cv2
2
3 cap = cv2.VideoCapture(0)
4
5 # Check camera opened
6 if not cap.isOpened():
7     print("Error: Camera not accessible")
8     exit()
9
10 while True:
11     ret, frame = cap.read()
12
13     if not ret:
14         print("Failed to grab frame")
15         break
16
17     cv2.imshow('Live', frame)
18
19     if cv2.waitKey(1) & 0xFF == ord('z'):
20         break
21
22 cap.release()
23 cv2.destroyAllWindows()
24
```



```
File Edit Selection View Go Run ... ⏪ ⏩ Search
8.py cv_9.py cv_10.py cv_11.py cv_12.py cv_13.py cv_14.py cv_15.py cv_16.py cv_17.py BLACKBOX
C: > Users > pc > Downloads > cv_17.py > ...
1 import cv2
2
3 cap = cv2.VideoCapture(0)
4
5 # Check camera opened
6 if not cap.isOpened():
7     print("Error: Camera not accessible")
8     exit()
9
10 while True:
11     ret, frame = cap.read()
12     if not ret:
13         print("Failed to grab frame")
14         break
15     cv2.imshow('Live', frame)
16     if cv2.waitKey(1) & 0xFF == ord('z'):
17         break
18
19 cap.release()
20 cv2.destroyAllWindows()
21
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

n.debugpy-2025.16.0-win32-x64\bundled\libs\debugpy\launcher" "50076" ... "c:\Users\pc\Downloads\cv\_17.py"

PS C:\Users\pc\Downloads> [ ]

0 4 BLACKBOX Agent Open Website

Ln 11, Col 28 Spaces: 4 UTF-8 CR LF Python 3.10.0 Go Live BLACKBOX Agent Open Chat

25°C Clear

Search

NOTIFICATIONS

Couldn't start client Java Language Server

ENG IN 07:08 PM 14-12-2025

