

## DSA0210 Computer Vision with Open CV LAB Experiments

Experiment-3: 3. Capture video from web Camera and Display the video, in slow motion and in fast motion.

### **PROGRAM:**

```
import cv2
```

```
# Access the webcam (0 = default camera)
```

```
camera = cv2.VideoCapture(0)
```

```
# Check if camera opened successfully
```

```
if not camera.isOpened():
```

```
    raise RuntimeError("Web camera not accessible")
```

```
print("Press 's' for Slow motion")
```

```
print("Press 'f' for Fast motion")
```

```
print("Press 'n' for Normal speed")
```

```
print("Press 'q' to Quit")
```

```
delay = 30 # Normal speed
```

```
while True:
```

```
    ret, frame = camera.read()
```

```
    if not ret:
```

```
        break
```

```
# Display the webcam feed
```

```
cv2.imshow("Web Camera Video", frame)
```

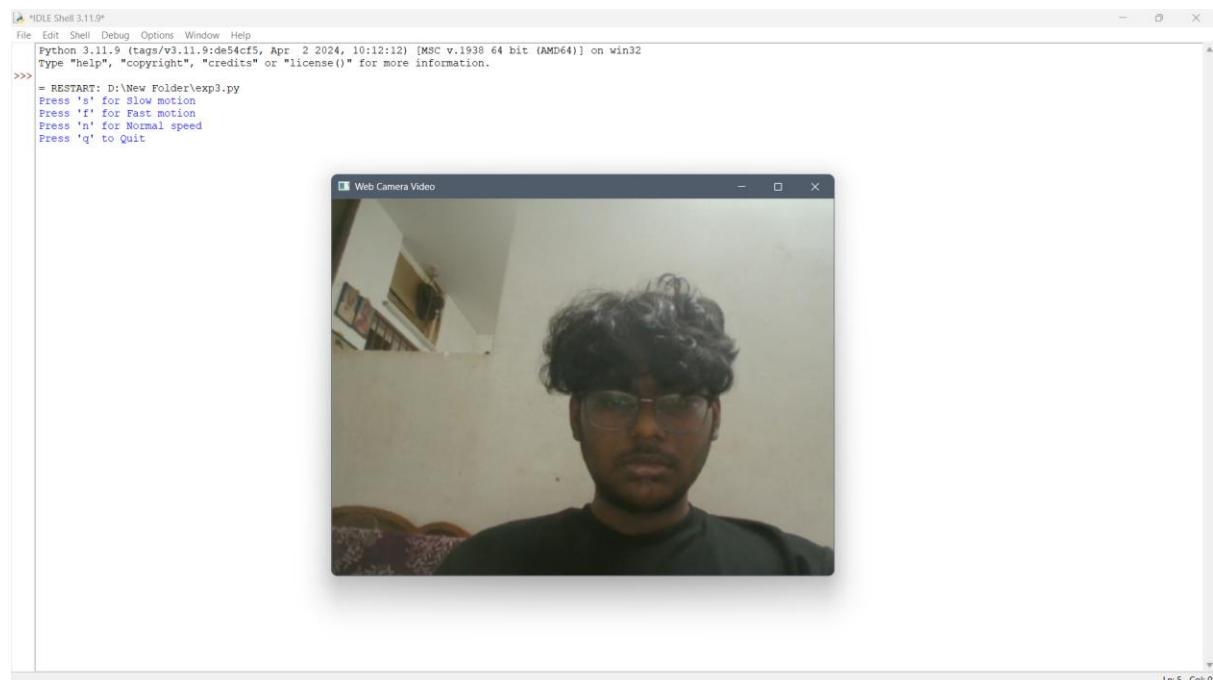
```
key = cv2.waitKey(delay) & 0xFF
```

```
if key == ord('q'):
    break
elif key == ord('s'):
    delay = 100 # Slow motion
elif key == ord('f'):
    delay = 10 # Fast motion
elif key == ord('n'):
    delay = 30 # Normal speed
```

```
# Release camera and close windows
```

```
camera.release()
cv2.destroyAllWindows()
```

#### OUTPUT:



The screenshot shows the Python IDLE Shell interface. The title bar reads "IDLE Shell 3.11.9". The menu bar includes File, Edit, Shell, Debug, Options, Window, Help. The window displays the following text:

```
File Edit Shell Debug Options Window Help
Python 3.11.9 (tags/v3.11.9:de54cf5, Apr  2 2024, 10:12:12) [MSC v.1938 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

>>> = RESTART: D:\New Folder\exp3.py
Press 's' for Slow motion
Press 'f' for Fast motion
Press 'n' for Normal speed
Press 'q' to Quit

Web Camera Video
```

A video frame from a web camera is displayed in a window titled "Web Camera Video". The frame shows a person with dark hair and glasses wearing a black shirt. The background is a plain wall.