In [5]:
```
import numpy as np
import argparse
import cv2
import os
import tensorflow as tf
from tensorflow.keras.models import Sequential
from tensorflow.keras.layers import Dense,Conv2D,Flatten,MaxPooling2D,Dropout
```

In [6]:
```
model = tf.keras.models.load_model(r'emotion.h5')
emotion_dict = {0: "Angry", 1: "Disgusted", 2: "Fearful", 3: "Happy", 4: "Neut
ral", 5: "Sad", 6: "Surprised"}
```

In [7]:
```
cap = cv2.VideoCapture(0)
while True:

    ret, frame = cap.read()
    if not ret:
        break
    facecasc = cv2.CascadeClassifier('haarcascade_frontalface_default.xml')
    gray = cv2.cvtColor(frame, cv2.COLOR_BGR2GRAY)
    faces = facecasc.detectMultiScale(gray, scaleFactor=1.3, minNeighbors=5)

    for (x, y, w, h) in faces:
        cv2.rectangle(frame, (x, y-50), (x+w, y+h+10), (255, 0, 0), 2)
        roi_gray = gray[y:y + h, x:x + w]
        cropped_img = np.expand_dims(np.expand_dims(cv2.resize(roi_gray, (48,
48)), -1), 0)
        prediction = model.predict(cropped_img)
        maxindex = int(np.argmax(prediction))
        cv2.putText(frame, emotion_dict[maxindex], (x+20, y-60), cv2.FONT_HERS
HEY_SIMPLEX, 1, (255, 255, 255), 2, cv2.LINE_AA)

    cv2.imshow('Video', cv2.resize(frame,(1600,960),interpolation = cv2.INTER_
CUBIC))
    if cv2.waitKey(1) & 0xFF == ord('q'):
        break

cap.release()
cv2.destroyAllWindows()
```

In [ ]:

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