In [2]:

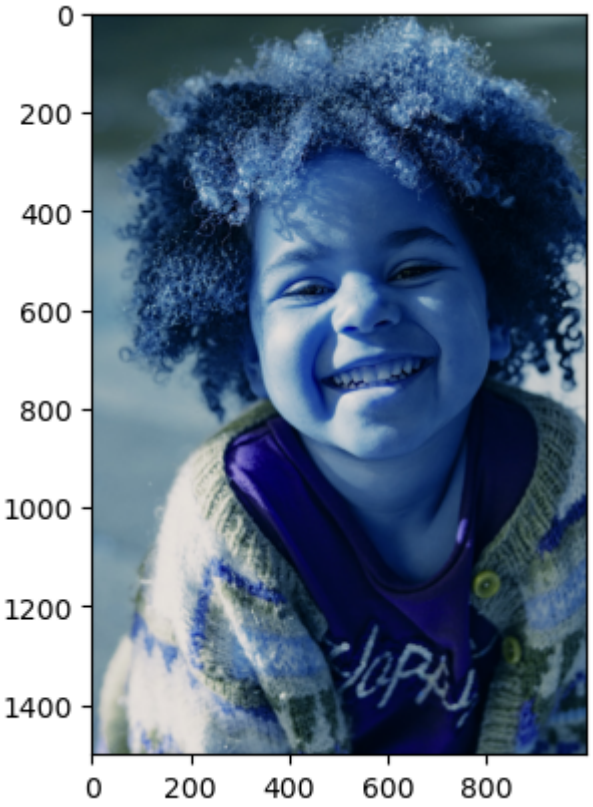
```
import cv2
import matplotlib.pyplot as plt
from deepface import DeepFace
```

In [7]:

```
img = cv2.imread("img.jpeg")
plt.imshow(img)
```

Out[7]:

```
<matplotlib.image.AxesImage at 0x1fe5c258490>
```



In [8]:

```
plt.imshow(cv2.cvtColor(img,cv2.COLOR_BGR2RGB))
```

Out[8]:

```
<matplotlib.image.AxesImage at 0x1fe5c2ae5f0>
```

In [11]:

```
pred=DeepFace.analyze(img)
```

```
Action: race: 100%|████████████████████████████████████████████████
████████████████| 4/4 [00:00<00:00,  4.98it/s]
Action: race: 100%|████████████████████████████████████████████████
████████████████| 4/4 [00:00<00:00,  5.81it/s]
```

In [12]:

```
pred
```

Out[12]:


```
[{'emotion': {'angry': 4.7490916254721186e-07,
   'disgust': 6.37611341769883e-14,
   'fear': 5.5782485957944115e-06,
   'happy': 99.99973177908252,
   'sad': 3.413606383414033e-05,
   'surprise': 0.00017248502108848548,
   'neutral': 5.362009893728719e-05},
  'dominant_emotion': 'happy',
  'region': {'x': 265, 'y': 303, 'w': 577, 'h': 577},
  'age': 26,
  'gender': {'Woman': 0.8914416655898094, 'Man': 99.10855889320374},
  'dominant_gender': 'Man',
  'race': {'asian': 20.694714784622192,
   'indian': 16.287173330783844,
   'black': 29.261821508407593,
   'white': 5.751151219010353,
   'middle eastern': 5.452296510338783,
   'latino hispanic': 22.552843391895294},
  'dominant_race': 'black'},
 {'emotion': {'angry': 2.6393814012408257,
   'disgust': 0.0003411537363717798,
   'fear': 0.005536750904866494,
   'happy': 73.00146222114563,
   'sad': 24.096693098545074,
   'surprise': 7.782878697071283e-06,
   'neutral': 0.2565785776823759},
  'dominant_emotion': 'happy',
  'region': {'x': 599, 'y': 1273, 'w': 125, 'h': 125},
  'age': 30,
  'gender': {'Woman': 24.976804852485657, 'Man': 75.0231921672821},
  'dominant_gender': 'Man',
  'race': {'asian': 7.540997117757797,
   'indian': 10.938749462366104,
   'black': 2.2428063675761223,
   'white': 31.13212287425995,
   'middle eastern': 28.97530198097229,
   'latino hispanic': 19.170020520687103},
  'dominant_race': 'white'}]
```


In [18]:

```
d=pred[0]
d1=d['dominant_emotion']
d1
```

Out[18]:

```
'happy'
```

In [15]:

```
box=cv2.CascadeClassifier(cv2.data.haarcascades+"haarcascade_frontalface_default.xml")

gray=cv2.cvtColor(img,cv2.COLOR_BGR2RGB)
faces=box.detectMultiScale(gray,1.1,4)

for (x,y,w,h) in faces:
  cv2.rectangle(img,(x,y),(x+w,y+h),(0,0,0),2)


plt.imshow(cv2.cvtColor(img,cv2.COLOR_BGR2RGB))
```

Out[15]:

```
<matplotlib.image.AxesImage at 0x1fe046e7670>
```

In [19]:

```
text=cv2.FONT_HERSHEY_SIMPLEX
cv2.putText(img,
            d1,
            (0,50),
            text, 1,
            (0,0,0),
            2,
            cv2.LINE_4);
```

In [20]:

```
plt.imshow(cv2.cvtColor(img,cv2.COLOR_BGR2RGB))
```

Out[20]:

```
<matplotlib.image.AxesImage at 0x1fe04bb3220>
```

¶

In [2]:

```
import cv2
import matplotlib.pyplot as plt
from deepface import DeepFace

box = cv2.CascadeClassifier(cv2.data.haarcascades + "haarcascade_frontalface_default.xml"
cap = cv2.VideoCapture(1)
if not cap.isOpened():
    cap = cv2.VideoCapture(0)
if not cap.isOpened():
    raise IOError("Cannot open webcam")

while True:
    ret, frame = cap.read()
    res = DeepFace.analyze(frame, actions=['emotion'], enforce_detection=False)
    gray = cv2.cvtColor(frame, cv2.COLOR_BGR2GRAY)
    faces = box.detectMultiScale(gray, 1.1, 4)
    d = res[0]
    d1 = d['dominant_emotion']

    for (x, y, w, h) in faces:
        cv2.rectangle(frame, (x, y), (x + w, y + h), (0, 0, 0), 2)

    text = cv2.FONT_HERSHEY_SIMPLEX
    cv2.putText(frame, d1, (0, 50), text, 1, (0, 0, 0), 2, cv2.LINE_4)

    cv2.imshow('original video', frame)
    if cv2.waitKey(1) & 0xFF == ord("q"):
        break

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

```
Action: emotion: 100%|██████████| 1/1 [00:00<00:00,  7.92it/s]
Action: emotion: 100%|██████████| 1/1 [00:00<00:00, 18.47it/s]
Action: emotion: 100%|██████████| 1/1 [00:00<00:00, 16.60it/s]
Action: emotion: 100%|██████████| 1/1 [00:00<00:00, 16.74it/s]
Action: emotion: 100%|██████████| 1/1 [00:00<00:00, 16.56it/s]
Action: emotion: 100%|██████████| 1/1 [00:00<00:00, 18.00it/s]
Action: emotion: 100%|██████████| 1/1 [00:00<00:00, 18.29it/s]
Action: emotion: 100%|██████████| 1/1 [00:00<00:00, 14.78it/s]
Action: emotion: 100%|██████████| 1/1 [00:00<00:00, 19.22it/s]
Action: emotion: 100%|██████████| 1/1 [00:00<00:00, 19.60it/s]
Action: emotion: 100%|██████████| 1/1 [00:00<00:00, 13.75it/s]
Action: emotion: 100%|██████████| 1/1 [00:00<00:00,  3.84it/s]
Action: emotion: 100%|██████████| 1/1 [00:00<00:00, 17.57it/s]
Action: emotion: 100%|██████████| 1/1 [00:00<00:00, 15.62it/s]
Action: emotion: 100%|██████████| 1/1 [00:00<00:00, 17.96it/s]
Action: emotion: 100%|██████████| 1/1 [00:00<00:00, 13.99it/s]
Action: emotion: 100%|██████████| 1/1 [00:00<00:00, 13.00it/s]
Action: emotion: 100%|██████████| 1/1 [00:00<00:00, 18.91it/s]
Action: emotion: 100%|██████████| 1/1 [00:00<00:00, 17.32it/s]
```

In [ ]: