

```
import matplotlib.pyplot as plt
img = plt.imread('/content/HappyBoy.jpg')
plt.imshow(img)
plt.axis('off')
plt.title("Hlw!!! Happy")
plt.show()
```

Hlw!!! Happy



```
import cv2

!pip install deepface

Requirement already satisfied: deepface in
/usr/local/lib/python3.10/dist-packages (0.0.93)
Requirement already satisfied: requests>=2.27.1 in
/usr/local/lib/python3.10/dist-packages (from deepface) (2.32.3)
Requirement already satisfied: numpy>=1.14.0 in
/usr/local/lib/python3.10/dist-packages (from deepface) (1.26.4)
Requirement already satisfied: pandas>=0.23.4 in
/usr/local/lib/python3.10/dist-packages (from deepface) (2.2.2)
Requirement already satisfied: gdown>=3.10.1 in
/usr/local/lib/python3.10/dist-packages (from deepface) (5.2.0)
Requirement already satisfied: tqdm>=4.30.0 in
/usr/local/lib/python3.10/dist-packages (from deepface) (4.67.1)
Requirement already satisfied: Pillow>=5.2.0 in
/usr/local/lib/python3.10/dist-packages (from deepface) (11.0.0)
Requirement already satisfied: opencv-python>=4.5.5.64 in
/usr/local/lib/python3.10/dist-packages (from deepface) (4.10.0.84)
```

Requirement already satisfied: tensorflow>=1.9.0 in
/usr/local/lib/python3.10/dist-packages (from deepface) (2.17.1)
Requirement already satisfied: keras>=2.2.0 in
/usr/local/lib/python3.10/dist-packages (from deepface) (3.5.0)
Requirement already satisfied: Flask>=1.1.2 in
/usr/local/lib/python3.10/dist-packages (from deepface) (3.1.0)
Requirement already satisfied: flask-cors>=4.0.1 in
/usr/local/lib/python3.10/dist-packages (from deepface) (5.0.0)
Requirement already satisfied: mtcnn>=0.1.0 in
/usr/local/lib/python3.10/dist-packages (from deepface) (1.0.0)
Requirement already satisfied: retina-face>=0.0.1 in
/usr/local/lib/python3.10/dist-packages (from deepface) (0.0.17)
Requirement already satisfied: fire>=0.4.0 in
/usr/local/lib/python3.10/dist-packages (from deepface) (0.7.0)
Requirement already satisfied: gunicorn>=20.1.0 in
/usr/local/lib/python3.10/dist-packages (from deepface) (23.0.0)
Requirement already satisfied: termcolor in
/usr/local/lib/python3.10/dist-packages (from fire>=0.4.0->deepface)
(2.5.0)
Requirement already satisfied: Werkzeug>=3.1 in
/usr/local/lib/python3.10/dist-packages (from Flask>=1.1.2->deepface)
(3.1.3)
Requirement already satisfied: Jinja2>=3.1.2 in
/usr/local/lib/python3.10/dist-packages (from Flask>=1.1.2->deepface)
(3.1.4)
Requirement already satisfied: itsdangerous>=2.2 in
/usr/local/lib/python3.10/dist-packages (from Flask>=1.1.2->deepface)
(2.2.0)
Requirement already satisfied: click>=8.1.3 in
/usr/local/lib/python3.10/dist-packages (from Flask>=1.1.2->deepface)
(8.1.7)
Requirement already satisfied: blinker>=1.9 in
/usr/local/lib/python3.10/dist-packages (from Flask>=1.1.2->deepface)
(1.9.0)
Requirement already satisfied: beautifulsoup4 in
/usr/local/lib/python3.10/dist-packages (from gdown>=3.10.1->deepface)
(4.12.3)
Requirement already satisfied: filelock in
/usr/local/lib/python3.10/dist-packages (from gdown>=3.10.1->deepface)
(3.16.1)
Requirement already satisfied: packaging in
/usr/local/lib/python3.10/dist-packages (from gunicorn>=20.1.0->deepface) (24.2)
Requirement already satisfied: absl-py in
/usr/local/lib/python3.10/dist-packages (from keras>=2.2.0->deepface)
(1.4.0)
Requirement already satisfied: rich in /usr/local/lib/python3.10/dist-
packages (from keras>=2.2.0->deepface) (13.9.4)
Requirement already satisfied: namex in

/usr/local/lib/python3.10/dist-packages (from keras>=2.2.0->deepface) (0.0.8)
Requirement already satisfied: h5py in /usr/local/lib/python3.10/dist-packages (from keras>=2.2.0->deepface) (3.12.1)
Requirement already satisfied: optree in /usr/local/lib/python3.10/dist-packages (from keras>=2.2.0->deepface) (0.13.1)
Requirement already satisfied: ml-dtypes in /usr/local/lib/python3.10/dist-packages (from keras>=2.2.0->deepface) (0.4.1)
Requirement already satisfied: joblib>=1.4.2 in /usr/local/lib/python3.10/dist-packages (from mtcnn>=0.1.0->deepface) (1.4.2)
Requirement already satisfied: lz4>=4.3.3 in /usr/local/lib/python3.10/dist-packages (from mtcnn>=0.1.0->deepface) (4.3.3)
Requirement already satisfied: python-dateutil>=2.8.2 in /usr/local/lib/python3.10/dist-packages (from pandas>=0.23.4->deepface) (2.8.2)
Requirement already satisfied: pytz>=2020.1 in /usr/local/lib/python3.10/dist-packages (from pandas>=0.23.4->deepface) (2024.2)
Requirement already satisfied: tzdata>=2022.7 in /usr/local/lib/python3.10/dist-packages (from pandas>=0.23.4->deepface) (2024.2)
Requirement already satisfied: charset-normalizer<4,>=2 in /usr/local/lib/python3.10/dist-packages (from requests>=2.27.1->deepface) (3.4.0)
Requirement already satisfied: idna<4,>=2.5 in /usr/local/lib/python3.10/dist-packages (from requests>=2.27.1->deepface) (3.10)
Requirement already satisfied: urllib3<3,>=1.21.1 in /usr/local/lib/python3.10/dist-packages (from requests>=2.27.1->deepface) (2.2.3)
Requirement already satisfied: certifi>=2017.4.17 in /usr/local/lib/python3.10/dist-packages (from requests>=2.27.1->deepface) (2024.12.14)
Requirement already satisfied: astunparse>=1.6.0 in /usr/local/lib/python3.10/dist-packages (from tensorflow>=1.9.0->deepface) (1.6.3)
Requirement already satisfied: flatbuffers>=24.3.25 in /usr/local/lib/python3.10/dist-packages (from tensorflow>=1.9.0->deepface) (24.3.25)
Requirement already satisfied: gast!=0.5.0,!0.5.1,!0.5.2,>=0.2.1 in /usr/local/lib/python3.10/dist-packages (from tensorflow>=1.9.0->deepface) (0.6.0)
Requirement already satisfied: google-pasta>=0.1.1 in /usr/local/lib/python3.10/dist-packages (from tensorflow>=1.9.0->deepface) (0.2.0)

Requirement already satisfied: libclang>=13.0.0 in
/usr/local/lib/python3.10/dist-packages (from tensorflow>=1.9.0-
>deepface) (18.1.1)

Requirement already satisfied: opt-einsum>=2.3.2 in
/usr/local/lib/python3.10/dist-packages (from tensorflow>=1.9.0-
>deepface) (3.4.0)

Requirement already satisfied: protobuf!=4.21.0,!4.21.1,!4.21.2,!
=4.21.3,!4.21.4,!4.21.5,<5.0.0dev,>=3.20.3 in
/usr/local/lib/python3.10/dist-packages (from tensorflow>=1.9.0-
>deepface) (4.25.5)

Requirement already satisfied: setuptools in
/usr/local/lib/python3.10/dist-packages (from tensorflow>=1.9.0-
>deepface) (75.1.0)

Requirement already satisfied: six>=1.12.0 in
/usr/local/lib/python3.10/dist-packages (from tensorflow>=1.9.0-
>deepface) (1.17.0)

Requirement already satisfied: typing-extensions>=3.6.6 in
/usr/local/lib/python3.10/dist-packages (from tensorflow>=1.9.0-
>deepface) (4.12.2)

Requirement already satisfied: wrapt>=1.11.0 in
/usr/local/lib/python3.10/dist-packages (from tensorflow>=1.9.0-
>deepface) (1.17.0)

Requirement already satisfied: grpcio<2.0,>=1.24.3 in
/usr/local/lib/python3.10/dist-packages (from tensorflow>=1.9.0-
>deepface) (1.68.1)

Requirement already satisfied: tensorboard<2.18,>=2.17 in
/usr/local/lib/python3.10/dist-packages (from tensorflow>=1.9.0-
>deepface) (2.17.1)

Requirement already satisfied: tensorflow-io-gcs-filesystem>=0.23.1 in
/usr/local/lib/python3.10/dist-packages (from tensorflow>=1.9.0-
>deepface) (0.37.1)

Requirement already satisfied: wheel<1.0,>=0.23.0 in
/usr/local/lib/python3.10/dist-packages (from astunparse>=1.6.0-
>tensorflow>=1.9.0->deepface) (0.45.1)

Requirement already satisfied: MarkupSafe>=2.0 in
/usr/local/lib/python3.10/dist-packages (from Jinja2>=3.1.2-
>Flask>=1.1.2->deepface) (3.0.2)

Requirement already satisfied: markdown>=2.6.8 in
/usr/local/lib/python3.10/dist-packages (from tensorboard<2.18,>=2.17-
>tensorflow>=1.9.0->deepface) (3.7)

Requirement already satisfied: tensorboard-data-server<0.8.0,>=0.7.0
in /usr/local/lib/python3.10/dist-packages (from
tensorboard<2.18,>=2.17->tensorflow>=1.9.0->deepface) (0.7.2)

Requirement already satisfied: soupsieve>1.2 in
/usr/local/lib/python3.10/dist-packages (from beautifulsoup4-
>gdown>=3.10.1->deepface) (2.6)

Requirement already satisfied: PySocks!=1.5.7,>=1.5.6 in
/usr/local/lib/python3.10/dist-packages (from requests[socks]-
>gdown>=3.10.1->deepface) (1.7.1)

Requirement already satisfied: markdown-it-py>=2.2.0 in
/usr/local/lib/python3.10/dist-packages (from rich->keras>=2.2.0->deepface) (3.0.0)
Requirement already satisfied: pygments<3.0.0,>=2.13.0 in
/usr/local/lib/python3.10/dist-packages (from rich->keras>=2.2.0->deepface) (2.18.0)
Requirement already satisfied: mdurl~=0.1 in
/usr/local/lib/python3.10/dist-packages (from markdown-it-py>=2.2.0->rich->keras>=2.2.0->deepface) (0.1.2)

```
from deepface import DeepFace
```

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

Action: emotion: 0%| | 0/4 [00:00<?, ?it/s]

24-12-22 14:07:17 - facial_expression_model_weights.h5 will be downloaded...

Downloading...

From:

https://github.com/serengil/deepface_models/releases/download/v1.0/facial_expression_model_weights.h5

To: /root/.deepface/weights/facial_expression_model_weights.h5

0%| | 0.00/5.98M [00:00<?, ?B/s]

24-12-22 14:07:21 - age_model_weights.h5 will be downloaded...

Downloading...

From:

https://github.com/serengil/deepface_models/releases/download/v1.0/age_model_weights.h5

To: /root/.deepface/weights/age_model_weights.h5

0%| | 0.00/539M [00:00<?, ?B/s]

24-12-22 14:07:33 - gender_model_weights.h5 will be downloaded...

Downloading...

From:

https://github.com/serengil/deepface_models/releases/download/v1.0/gender_model_weights.h5

To: /root/.deepface/weights/gender_model_weights.h5

0%| | 0.00/537M [00:00<?, ?B/s]

24-12-22 14:07:49 - race_model_single_batch.h5 will be downloaded...

Downloading...

From:

https://github.com/serengil/deepface_models/releases/download/v1.0/

```
race_model_single_batch.h5
To: /root/.deepface/weights/race_model_single_batch.h5
```

```
0%|          | 0.00/537M [00:00<?, ?B/s]
```

```
predictions
```

```
[{'emotion': {'angry': 1.9734450076684673e-11,
  'disgust': 1.4774786677518205e-18,
  'fear': 3.98842844330765e-12,
  'happy': 99.28774237632751,
  'sad': 1.056371101704201e-08,
  'surprise': 1.3143848232033406e-07,
  'neutral': 0.7122574839740992},
  'dominant_emotion': 'happy',
  'region': {'x': 283,
  'y': 211,
  'w': 366,
  'h': 366,
  'left_eye': (537, 355),
  'right_eye': (402, 355)},
  'face_confidence': 0.92,
  'age': 26,
  'gender': {'Woman': 0.2773513551801443, 'Man': 99.72264170646667},
  'dominant_gender': 'Man',
  'race': {'asian': 100.0,
  'indian': 3.6260445757108073e-07,
  'black': 3.996430816193592e-15,
  'white': 1.3602069470763922e-08,
  'middle eastern': 2.0550899068331353e-17,
  'latino hispanic': 1.0818165918635714e-06},
  'dominant_race': 'asian'}]
```

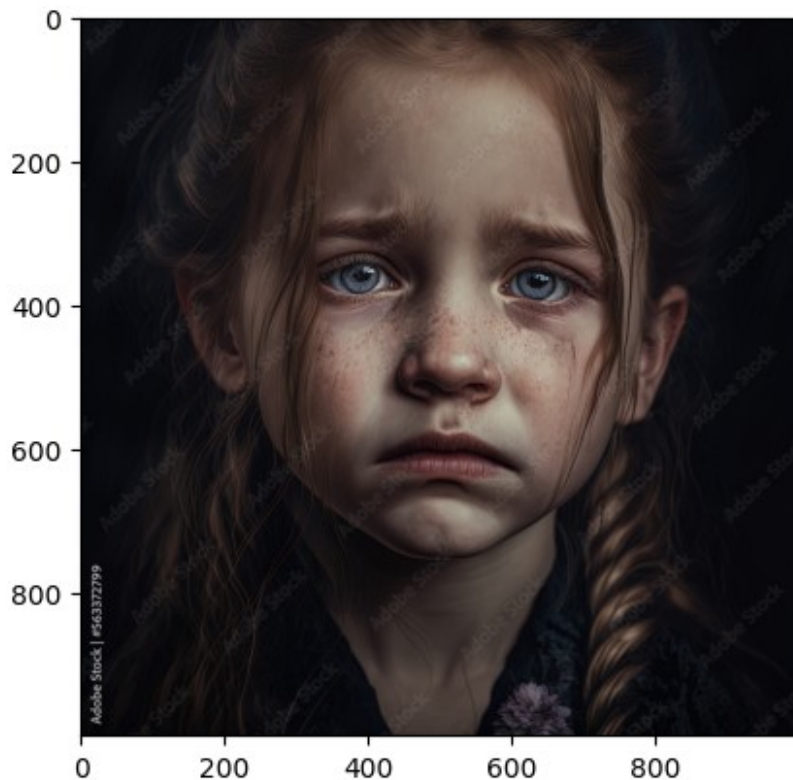
So, here the dominant_emotion is happy.

```
type(predictions)
```

```
list
```

```
sad=cv2.imread('/content/sadGirl.jpg')
plt.imshow(sad)
plt.imshow(cv2.cvtColor(sad, cv2.COLOR_BGR2RGB))
```

```
<matplotlib.image.AxesImage at 0x7b5fa213b580>
```



```
predictions= DeepFace.analyze(sad)
```

```
Action: race: 100%|██████████| 4/4 [00:02<00:00, 1.80it/s]
```

```
predictions
```

```
[{'emotion': {'angry': 0.013107148697599769,
  'disgust': 2.491913564384163e-07,
  'fear': 0.3013063222169876,
  'happy': 2.6175634104674828e-06,
  'sad': 90.52394032478333,
  'surprise': 2.980655944284649e-07,
  'neutral': 9.16164219379425},
  'dominant_emotion': 'sad',
  'region': {'x': 173,
  'y': 87,
  'w': 673,
  'h': 673,
  'left_eye': None,
  'right_eye': None},
  'face_confidence': 0.92,
  'age': 30,
  'gender': {'Woman': 99.6213972568512, 'Man': 0.37859680596739054},
  'dominant_gender': 'Woman',
  'race': {'asian': 6.265807151794434,
  'indian': 2.191891334950924,
```

```
'black': 0.9076983667910099,  
'white': 56.45355582237244,  
'middle eastern': 12.90002316236496,  
'latino hispanic': 21.28102034330368},  
'dominant_race': 'white']}]
```

So, here the dominant_emotion is Sad.

```
fear = plt.imread('/content/FearMan2.jpg')  
plt.imshow(fear)  
plt.axis('off')  
plt.title("Sooo!!!! Horrificed")  
plt.show()
```

Sooo!!!! Horrificed



```
from deepface import DeepFace  
predictions= DeepFace.analyze(fear)
```

Action: race: 100%|██████████| 4/4 [00:03<00:00, 1.20it/s]

predictions

```
[{'emotion': {'angry': 6.129021197557449,  
'disgust': 0.00036796734548261156,  
'fear': 93.69741678237915,  
'happy': 0.0020911542378598824,
```



```
'sad': 0.1698527717962861,  
'surprise': 9.404599836670968e-05,  
'neutral': 0.0011562015970412176},  
'dominant_emotion': 'fear',  
'region': {'x': 196,  
'y': 93,  
'w': 130,  
'h': 130,  
'left_eye': (275, 138),  
'right_eye': (238, 151)},  
'face_confidence': 0.93,  
'age': 25,  
'gender': {'Woman': 0.03322965349070728, 'Man': 99.9667763710022},  
'dominant_gender': 'Man',  
'race': {'asian': 0.001980386150535196,  
'indian': 0.2091017784550786,  
'black': 0.00018702423858485417,  
'white': 34.737902879714966,  
'middle eastern': 57.48632550239563,  
'latino hispanic': 7.56450891494751},  
'dominant_race': 'middle eastern']}]
```

So, here the dominant_emotion is Fear