```
train_generator = train_datagen.flow_from_directory(
    '/content/drive/MyDrive/face',
    target_size=(IMG_SIZE,IMG_SIZE),
    batch_size=BATCH_SIZE,
    class_mode='binary',
    subset='training'
)
val_generator = train_datagen.flow_from_directory(
    '/content/drive/MyDrive/face',
    target_size=(IMG_SIZE,IMG_SIZE),
    batch_size=BATCH_SIZE,
    class_mode='binary',
    subset='validation'
)
```

```
Found 144 images belonging to 2 classes.
Found 35 images belonging to 2 classes.
```

```
from tensorflow.keras.models import load_model
from tensorflow.keras.preprocessing import image
import numpy as np

model = load_model('/content/drive/MyDrive/face/Model.h5')

test_image_path = '/content/drive/MyDrive/face/face_detection/th100.jpg'

# Change target_size to (244, 244) to match the model's input shape
img =image.load_img(test_image_path,target_size=(244,244))
img_array = image.img_to_array(img)
img_array = np.expand_dims(img_array,axis=0)

img_array /=225.0

prediction = model.predict(img_array)

print(prediction)
```

```
1/1 [==============================] - 0s 130ms/step
[[1.]]
```

```
if prediction < 0.5:
   print("Prediction: This is a female(Probability:", prediction[0][0])

else:
   print("Prediction: This is a male (Probability:", prediction[0][0])
```

```
Prediction: This is a male (Probability: 1.0
```

```
[7] model.fit(train_generator, epochs=5, validation_data=val_generator)
```

```
Epoch 1/5
5/5 [==============================] - 23s 4s/step - loss: 0.1470 - accuracy: 1.0000 - val_loss: 2.4810e-25 - val_accuracy: 1.0000
Epoch 2/5
5/5 [==============================] - 19s 4s/step - loss: 1.7294e-25 - accuracy: 1.0000 - val_loss: 0.0000e+00 - val_accuracy: 1.0000
Epoch 3/5
5/5 [==============================] - 19s 4s/step - loss: 0.0000e+00 - accuracy: 1.0000 - val_loss: 0.0000e+00 - val_accuracy: 1.0000
Epoch 4/5
5/5 [==============================] - 20s 4s/step - loss: 0.0000e+00 - accuracy: 1.0000 - val_loss: 0.0000e+00 - val_accuracy: 1.0000
Epoch 5/5
5/5 [==============================] - 19s 4s/step - loss: 0.0000e+00 - accuracy: 1.0000 - val_loss: 0.0000e+00 - val_accuracy: 1.0000
<keras.src.callbacks.History at 0x7c9a09662560>
```

```
[8] model.save("face.h5", "label.text")
```

```
/usr/local/lib/python3.10/dist-packages/keras/src/engine/training.py:3103: UserWarning: You are saving your model as an HDF5 file via
  saving_api.save_model(
```