```
import tensorflow as tf
from tensorflow.keras.applications import MobileNetV2
from tensorflow.keras.preprocessing import image
from tensorflow.keras.applications.mobilenet_v2 import preprocess_input, decode_
import numpy as np

base_model = MobileNetV2(weights='imagenet', include_top=False, input_shape=(224

for layer in base_model.layers:
    layer.trainable = False

model = tf.keras.Sequential([
    base_model,
    tf.keras.layers.GlobalAveragePooling2D(),
    tf.keras.layers.Dense(units=1, activation='sigmoid')
])

model.compile(optimizer='adam', loss='binary_crossentropy', metrics=['accuracy'])

def predict_animal(image_path):
    try:
        img = image.load_img(image_path, target_size=(224, 224))
        img_array = image.img_to_array(img)
        img_array = np.expand_dims(img_array, axis=0)
        img_array = preprocess_input(img_array)
        result = model.predict(img_array)

        animal_class = 'Dog' if result[0][0] > 0.5 else 'Cat'
        return animal_class
    except Exception as e:
        return f'Error: {str(e)}'

image_path = '/content/cat.jpg'
prediction = predict_animal(image_path)
print(f'The given image is a {prediction}')
```

```
WARNING:tensorflow:5 out of the last 5 calls to <function Model.make_predic
1/1 [==============================] - 1s 1s/step
The given image is a Cat
```