

```
import tensorflow as tf
from tensorflow import keras
from tensorflow.keras import layers
from tensorflow.keras.preprocessing.image import ImageDataGenerator
img_size=224
batch_size=32
```

```
train_datagen=ImageDataGenerator(rescale=1./255,validation_split=0.2)
train_generator=train_datagen.flow_from_directory(
    r'/content/drive/MyDrive/archive (3)',
    target_size=(img_size,img_size),
    batch_size=32,
    class_mode='binary',
    subset='training'
)
```

```
val_generator=train_datagen.flow_from_directory(
    r'/content/drive/MyDrive/archive (3)',
    target_size=(img_size,img_size),
    batch_size=32,
    class_mode='binary',
    subset='validation'
)
```

Found 3061 images belonging to 3 classes.
Found 764 images belonging to 3 classes.

```
model=keras.Sequential([
    layers.Conv2D(32,(3,3),activation='relu',input_shape=(img_size,img_size,3)),
    layers.MaxPooling2D(2,2),
    layers.Conv2D(64,(3,3),activation='relu'),
    layers.MaxPooling2D(2,2),
    layers.Conv2D(128,(3,3),activation='relu'),
    layers.MaxPooling2D(2,2),
    layers.Flatten(),
    layers.Dense(128,activation='relu'),
    layers.Dense(1,activation='sigmoid')
])
```

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

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

```
... Epoch 1/5
/usr/local/lib/python3.10/dist-packages/PIL/Image.py:996: UserWarning: Palette images with Transparency expressed in b
warnings.warn(
96/96 [=====] - ETA: 0s - loss: 0.5207 - accuracy: 0.8141
```



