

```
!unzip Flowers-Dataset.zip
```

```
from tensorflow.keras.preprocessing.image import ImageDataGenerator
```

```
train_datagen=ImageDataGenerator(rescale=1./255,  
                                zoom_range=0.2,  
                                horizontal_flip=True)
```

```
test_datagen=ImageDataGenerator(rescale=1./255)
```

```
xtrain=train_datagen.flow_from_directory('/flowers',  
                                         target_size=(76,76),  
                                         class_mode='categorical',  
                                         batch_size=100)
```

```
-----  
-----
```

```
FileNotFoundError                                Traceback (most recent call  
last)
```

```
<ipython-input-13-35006da4c103> in <module>
```

```
      2                                target_size=(76,76),  
      3  
class_mode='categorical',  
----> 4                                batch_size=100)
```

```
/usr/local/lib/python3.7/dist-packages/keras/preprocessing/image.py in  
flow_from_directory(self, directory, target_size, color_mode, classes,  
class_mode, batch_size, shuffle, seed, save_to_dir, save_prefix,  
save_format, follow_links, subset, interpolation, keep_aspect_ratio)
```

```
    1485         subset=subset,  
    1486         interpolation=interpolation,  
-> 1487         dtype=self.dtype)  
    1488  
    1489     def flow_from_dataframe(self,
```

```
/usr/local/lib/python3.7/dist-packages/keras/preprocessing/image.py in  
__init__(self, directory, image_data_generator, target_size,  
color_mode, classes, class_mode, batch_size, shuffle, seed,  
data_format, save_to_dir, save_prefix, save_format, follow_links,  
subset, interpolation, keep_aspect_ratio, dtype)
```

```
    505         if not classes:  
    506             classes = []
```

```

--> 507         for subdir in sorted(os.listdir(directory)):
508             if os.path.isdir(os.path.join(directory, subdir)):
509                 classes.append(subdir)

```

FileNotFoundError: [Errno 2] No such file or directory: '/flowers'

```

from tensorflow.keras.models import Sequential
from tensorflow.keras.layers import
    Convolution2D,MaxPool2D,Flatten,Dense

```

```

model=Sequential()
model.add(Convolution2D(32,(3,3),activation='relu',input_shape=
    (76,76,3)))
model.add(MaxPool2D(pool_size=(2,2)))
model.add(Flatten())
model.add(Dense(300,activation='relu'))
model.add(Dense(150,activation='relu'))
model.add(Dense(4,activation='softmax'))

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

model.fit_generator(xtrain,
                    steps_per_epoch = len(xtrain),
                    epochs = 10,
                    validation_data = xtest,
                    validation_steps = len(xtest))

```


NameError Traceback (most recent call
last)

<ipython-input-12-8863c00c0cdd> in <module>

```

----> 1 model.fit_generator(xtrain,
2             steps_per_epoch = len(xtrain),
3             epochs = 10,
4             validation_data = xtest,
5             validation_steps = len(xtest))

```

NameError: name 'xtrain' is not defined

```

model.save('flowers.h5')

```

```

from tensorflow.keras.preprocessing import image
import numpy as np

```

```
img=image.load_img('/content/flowers/daisy/10140303196_b88d3d6cec.jpg'  
                  ,target_size=(76,76))
```

```
img
```

```
-----  
-----
```

```
FileNotFoundError                                Traceback (most recent call  
last)
```

```
<ipython-input-16-1c39ab27e07a> in <module>
```

```
----> 1
```

```
img=image.load_img('/content/flowers/daisy/10140303196_b88d3d6cec.jpg'  
,target_size=(76,76))
```

```
2 img
```

```
/usr/local/lib/python3.7/dist-packages/keras/utils/image_utils.py in  
load_img(path, grayscale, color_mode, target_size, interpolation,  
keep_aspect_ratio)
```

```
391     if isinstance(path, pathlib.Path):
```

```
392         path = str(path.resolve())
```

```
--> 393     with open(path, 'rb') as f:
```

```
394         img = pil_image.open(io.BytesIO(f.read()))
```

```
395     else:
```

```
FileNotFoundError: [Errno 2] No such file or directory:
```

```
'/content/flowers/daisy/10140303196_b88d3d6cec.jpg'
```

```
x=image.img_to_array(img)
```

```
x
```

```
x=np.expand_dims(x,axis=0)
```

```
pred=np.argmax(model.predict(x))
```

```
pred
```

```
op=['daisy','dandelion','rose','sunflower','tulip']
```

```
op[pred]
```

```
-----  
-----
```

```
NameError                                Traceback (most recent call  
last)
```

```
<ipython-input-17-2d40468d8112> in <module>
```

```
----> 1 x=image.img_to_array(img)
```

```
2 x
```

```
3 x=np.expand_dims(x,axis=0)
```

```
4 pred=np.argmax(model.predict(x))
```

```
5 pred
```

NameError: name 'img' is not defined