```python
from keras.preprocessing.image import ImageDataGenerator
train_datagen=ImageDataGenerator(rescale=1./255,shear_range=0.2,zoom_range=0.2,horizontal_fli
test_datagen=ImageDataGenerator(rescale=1./255)
```

```python
x_train = train_datagen.flow_from_directory('/content/Dataset/training_set',target_size=(64,6
```

```
Found 15750 images belonging to 9 classes.
```

```python
x_test = test_datagen.flow_from_directory('/content/Dataset/test_set',target_size=(64,64),bat
```

```
Found 2250 images belonging to 9 classes.
```

```python
from keras.models import Sequential
from keras.layers import Dense
from keras.layers import Convolution2D
from keras.layers import MaxPooling2D
from keras.layers import Dropout
from keras.layers import Flatten
```

```python
model = Sequential()
```

```python
model.add(Convolution2D(32,(3,3),input_shape=(64,64,1), activation='relu'))
#no. of feature detectors, size of feature detector, image size, activation function
```

```python
model.add(MaxPooling2D(pool_size=(2,2)))
```

```python
model.add(Flatten())
```

```python
model.add(Dense(units=512, activation = 'relu'))
```

```python
model.add(Dense(units=9,  activation = 'softmax'))
```

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