```
import tensorflow
from tensorflow import keras
from keras.layers import Dense,Conv2D,Flatten,MaxPooling2D
from keras import Sequential
from keras.datasets import mnist


(X_train, y_train), (X_test, y_test) = mnist.load_data()
```

```
Downloading data from https://storage.googleapis.com/tensorflow/tf-keras-datasets/mnist.npz
11493376/11490434 [==============================] - 0s 0us/step
11501568/11490434 [==============================] - 0s 0us/step
```

```
model = Sequential()

model.add(Conv2D(32,kernel_size=(3,3),padding='valid', activation='relu', input_shape=(28,28,1)))
model.add(MaxPooling2D(pool_size=(2, 2), strides=2, padding='valid'))
model.add(Conv2D(32,kernel_size=(3,3),padding='valid', activation='relu'))
model.add(MaxPooling2D(pool_size=(2, 2), strides=2, padding='valid'))

model.add(Flatten())

model.add(Dense(128,activation='relu'))
model.add(Dense(10,activation='softmax'))


model.summary()
```

```
Model: "sequential"
_________________________________________________________________
 Layer (type)                Output Shape              Param #
=================================================================
 conv2d (Conv2D)             (None, 26, 26, 32)        320

 max_pooling2d (MaxPooling2D  (None, 13, 13, 32)       0
 )

 conv2d_1 (Conv2D)           (None, 11, 11, 32)        9248

 max_pooling2d_1 (MaxPooling  (None, 5, 5, 32)         0
 2D)

 flatten (Flatten)           (None, 800)               0

 dense (Dense)               (None, 128)               102528

 dense_1 (Dense)             (None, 10)                1290

=================================================================
Total params: 113,386
Trainable params: 113,386
Non-trainable params: 0
_________________________________________________________________
```