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from keras.datasets import mnist
data = mnist.load_data()
((X_train, y_train), (X_test, y_test)) = data
X_train = X_train.reshape((X_train.shape[0], 28*28)).astype('float32')
X_test = X_test.reshape((X_test.shape[0], 28*28)).astype('float32')
X_train = X_train / 255
X_test = X_test / 255
from keras.utils import np_utils
print(y_test.shape)
y_train = np_utils.to_categorical(y_train)
y_test = np_utils.to_categorical(y_test)
num_classes = y_test.shape[1]
print(num_classes)
from keras.models import Sequential
from keras.layers import Dense
model = Sequential()
model.add(Dense(32, input_dim = 28*28, activation='relu'))
model.add(Dense(64, activation='relu'))
model.add(Dense(10, activation='softmax'))
model.compile(loss='categorical_crossentropy', optimizer='adam',
metrics=['accuracy'])
model.summary()
model.fit(X_train, y_train, epochs=10, batch_size=100)
Scores = model.evaluate(X_test, y_test)
Print(scores)
```

