```
import tensorflow as tf
import numpy as np


mnist=tf.keras.datasets.mnist


(training_digits,training_labels),(test_digits,test_labels)=mnist.load_data()


print(tf.shape(test_digits))
```

```
tf.Tensor([10000    28    28], shape=(3,), dtype=int32)
```

```
print(tf.shape(training_labels))
```

```
tf.Tensor([60000], shape=(1,), dtype=int32)
```

```
accuracy=0


training_digits=training_digits/255
test_digits=test_digits/255



k=3
for i in range(1000):

  l1_distance=tf.abs(tf.add(training_digits,tf.negative(test_digits[i,:])))
  distance=tf.reduce_sum(l1_distance,axis=1)
  distance=tf.reduce_sum(distance,axis=1)
  nn_index=tf.argmin(distance)
                                                    ining_labels[i],"True Label:",test_labels[i])
```

Saved successfully!

```
Test 941 Prediction:  1 True Label: 7
Test 942 Prediction:  7 True Label: 6
Test 943 Prediction:  0 True Label: 6
Test 944 Prediction:  6 True Label: 3
Test 945 Prediction:  4 True Label: 2
Test 946 Prediction:  2 True Label: 7
Test 947 Prediction:  5 True Label: 8
Test 948 Prediction:  7 True Label: 1
Test 949 Prediction:  0 True Label: 1
Test 950 Prediction:  7 True Label: 7
Test 951 Prediction:  1 True Label: 5
Test 952 Prediction:  0 True Label: 6
Test 953 Prediction:  3 True Label: 4
Test 954 Prediction:  7 True Label: 9
Test 955 Prediction:  6 True Label: 5
```

```
Test 956 Prediction:  5 True Label: 1
Test 957 Prediction:  0 True Label: 3
Test 958 Prediction:  6 True Label: 3
Test 959 Prediction:  1 True Label: 4
Test 960 Prediction:  5 True Label: 7
Test 961 Prediction:  1 True Label: 8
Test 962 Prediction:  7 True Label: 9
Test 963 Prediction:  8 True Label: 1
Test 964 Prediction:  5 True Label: 1
Test 965 Prediction:  0 True Label: 6
Test 966 Prediction:  3 True Label: 9
Test 967 Prediction:  4 True Label: 1
Test 968 Prediction:  7 True Label: 4
Test 969 Prediction:  7 True Label: 4
Test 970 Prediction:  5 True Label: 5
Test 971 Prediction:  7 True Label: 4
Test 972 Prediction:  8 True Label: 0
Test 973 Prediction:  6 True Label: 6
Test 974 Prediction:  9 True Label: 2
Test 975 Prediction:  3 True Label: 2
Test 976 Prediction:  8 True Label: 3
Test 977 Prediction:  6 True Label: 1
Test 978 Prediction:  1 True Label: 5
Test 979 Prediction:  0 True Label: 1
Test 980 Prediction:  9 True Label: 2
Test 981 Prediction:  7 True Label: 0
Test 982 Prediction:  1 True Label: 3

Test 983 Prediction:  3 True Label: 8
Test 984 Prediction:  0 True Label: 1
Test 985 Prediction:  5 True Label: 2
Test 986 Prediction:  6 True Label: 6
Test 987 Prediction:  4 True Label: 7
Test 988 Prediction:  4 True Label: 1
Test 989 Prediction:  2 True Label: 6
Test 990 Prediction:  4 True Label: 2
Test 991 Prediction:  4 True Label: 3
Test 992 Prediction:  3 True Label: 9
                                abel: 0
                                abel: 1
                                abel: 2
Test 996 Prediction:  6 True Label: 2
Test 997 Prediction:  0 True Label: 0
Test 998 Prediction:  3 True Label: 8
Test 999 Prediction:  6 True Label: 9
```

Saved successfully!

```
for i in range(k):
  if (training_labels[nn_index]==test_labels[i]):
    accuracy+=1
print("Accuracy: ",(accuracy/1000)*100)
```

```
Accuracy:  1.9
```

Saved successfully!