In [1]:
```
import glob, cv2
```

In [2]:
```
files = glob.glob('imagedata\*.jpg')
test_feature=[]
test_label=[]
```

In [3]:
```
for file in files:
    img = cv2.imread(file)
    img = cv2.cvtColor(img, cv2.COLOR_BGR2GRAY)
    _, img = cv2.threshold(img, 120, 255, cv2.THRESH_BINARY_INV)
    test_feature.append(img)
    label = file[10:11]
    test_label.append(int(label))
```

In [4]:
```
import matplotlib.pyplot as plt
%matplotlib inline
def show_images_labels_predictions(images, labels, predictions, start_id, num=1
0):
    plt.gcf().set_size_inches(12, 14)
    if num > 25: num = 25
    for i in range(0, num):
        ax = plt.subplot(5, 5, i+1)
        ax.imshow(images[start_id], cmap='binary')

        if len(predictions) > 0:
            title = 'ai = ' + str(predictions[start_id])
            title += (' (o)' if predictions[start_id] == labels[start_id] else '
(x)')
            title += '\nlabel = ' + str(labels[start_id])
        else:
            title = 'label = ' + str(labels[start_id])

        ax.set_title(title, fontsize = 12)
        ax.set_xticks([])
        ax.set_yticks([])
        start_id += 1
    plt.show()
```

In [5]:
```
import numpy as np
```

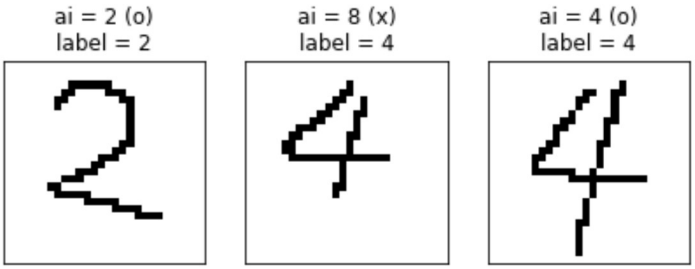
In [6]:
```
test_feature = np.array(test_feature)
test_label = np.array(test_label)
```

In [7]:
```
test_feature_vector = test_feature.reshape(len(test_feature), 784).astype('float
32')
test_feature_normalize = test_feature_vector/255
```

In [8]:
```
from keras.models import load_model
model = load_model('Mnist_mlp_model.h5')
```

```
Using TensorFlow backend.
C:\Users\KAI\Anaconda3\envs\NN\lib\site-packages\tensorflow\python\framework\d
types.py:523: FutureWarning: Passing (type, 1) or '1type' as a synonym of type
is deprecated; in a future version of numpy, it will be understood as (type,
(1,)) / '(1,)type'.
  _np_qint8 = np.dtype([("qint8", np.int8, 1)])
C:\Users\KAI\Anaconda3\envs\NN\lib\site-packages\tensorflow\python\framework\d
types.py:524: FutureWarning: Passing (type, 1) or '1type' as a synonym of type
is deprecated; in a future version of numpy, it will be understood as (type,
(1,)) / '(1,)type'.
  _np_quint8 = np.dtype([("quint8", np.uint8, 1)])
C:\Users\KAI\Anaconda3\envs\NN\lib\site-packages\tensorflow\python\framework\d
types.py:525: FutureWarning: Passing (type, 1) or '1type' as a synonym of type
is deprecated; in a future version of numpy, it will be understood as (type,
(1,)) / '(1,)type'.
  _np_qint16 = np.dtype([("qint16", np.int16, 1)])
C:\Users\KAI\Anaconda3\envs\NN\lib\site-packages\tensorflow\python\framework\d
types.py:526: FutureWarning: Passing (type, 1) or '1type' as a synonym of type
is deprecated; in a future version of numpy, it will be understood as (type,
(1,)) / '(1,)type'.
  _np_quint16 = np.dtype([("quint16", np.uint16, 1)])
C:\Users\KAI\Anaconda3\envs\NN\lib\site-packages\tensorflow\python\framework\d
types.py:527: FutureWarning: Passing (type, 1) or '1type' as a synonym of type
is deprecated; in a future version of numpy, it will be understood as (type,
(1,)) / '(1,)type'.
  _np_qint32 = np.dtype([("qint32", np.int32, 1)])
C:\Users\KAI\Anaconda3\envs\NN\lib\site-packages\tensorflow\python\framework\d
types.py:532: FutureWarning: Passing (type, 1) or '1type' as a synonym of type
is deprecated; in a future version of numpy, it will be understood as (type,
(1,)) / '(1,)type'.
  np_resource = np.dtype([("resource", np.ubyte, 1)])
```

In [9]:
```
prediction = model.predict_classes(test_feature_normalize)
show_images_labels_predictions(test_feature, test_label, prediction, 0, num=3)
```



In [ ]:
```
```