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        "from keras.layers.convolutional import Conv2D\n",
        "from keras.models import Sequential\n",
        "from tensorflow.keras.utils import to_categorical\n",
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"print (\"Shape of y_test: {}\".format(y_test.shape))"
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        "layer_2 = MaxPooling2D(pool_size=2)\n",
        "layer_3 = Conv2D(32, kernel_size=3, activation='relu')\n",
        "layer_4 = MaxPooling2D(pool_size=2)\n",
        "layer_5 = Dropout(0.5)\n",
        "layer_6 = Flatten()\n",
        "layer_7 = Dense(128, activation='relu')\n",
        "layer_8 = Dropout(0.5)\n",
        "layer_9 = Dense(10, activation='softmax')\n",
        "\n",
        "## Add the layers to the model\n",
        "model.add(layer_1)\n",
        "model.add(layer_2)\n",
        "model.add(layer_3)\n",
        "model.add(layer_4)\n",
        "model.add(layer_5)

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    "model.add(layer_8)\n",
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    "print (\"Prediction (Softmax) from the neural network:\\n\\n {}\".format(prediction))\n",

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"hard_maxed_prediction = np.zeros(prediction.shape)\n",
"hard_maxed_prediction[0][np.argmax(prediction)] = 1\n",
"print (\\n\\nHard-maxed form of the prediction: \\n\\n {}\\n".format(hard_maxed_prediction))\n",
"\n",
"print (\\n\\n----- Prediction ----- \\n\\n\\n")\n",
"plt.imshow(example.reshape(28, 28), cmap="gray")\n",
"plt.show()\n",
"print(\\n\\n\\nFinal Output: {}\\n".format(np.argmax(prediction)))"
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