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        "import tensorflow #open source used for both ML and DL for computation\n",
        "from tensorflow.keras.datasets import mnist #mnist dataset\n",
```

```

"from tensorflow.keras.models import Sequential #it is a plain stack of layers\n",
"from tensorflow.keras import layers #A Layer consists of a tensor- in tensor-out computation function\n",
"from tensorflow.keras.layers import Dense, Flatten #Dense-Dense Layer is the regular deeply connected\n",
"#flatten -used for flattening the input or change the dimension\n",
"from tensorflow.keras.layers import Conv2D #Convolutional Layer\n",
"from keras.optimizers import Adam #optimizer\n",
"from keras. utils import np_utils #used for one-hot encoding\n",
"import matplotlib.pyplot as plt #used for data visualization"
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    "x_train=x_train.reshape (60000, 28, 28, 1).astype('float32')\n",  
    "x_test=x_test.reshape (10000, 28, 28, 1).astype ('float32')"  
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        "y_train = np_utils.to_categorical (y_train, number_of_classes) #converts the output in binary
format\n",
        "y_test = np_utils.to_categorical (y_test, number_of_classes)"
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```

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        "Epoch 2/5\n",
        "1875/1875 [=====] - 110s 59ms/step - loss: 0.0606 - accuracy: 0.9814 - val_loss: 0.0754 - val_accuracy: 0.9758\n",
```



```
"Epoch 3/5\n",
  "1875/1875 [=====] - 109s 58ms/step - loss: 0.0470 - accuracy:
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  "Epoch 4/5\n",
  "1875/1875 [=====] - 111s 59ms/step - loss: 0.0336 - accuracy:
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  "Epoch 5/5\n",
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