

Creating a NN for recognizing the type of clothing item based on the image given to model

1. Loading Data: Fashion MNIST [\[Github Link\]](#)

```
import tensorflow as tf
from tensorflow import keras

mnist = tf.keras.datasets.fashion_mnist
(train_images, train_labels), (test_images, test_labels) = mnist.load_data()
```



09

09 = ankle boot;
踝靴;
アンクルブーツ;
Bróg rúitín



The Fashion MNIST data set is already part of keras datasets database.

labels are numbers and not actual words for 2 reasons - to avoid bias to any one particular language and secondly computers are better at handling numbers than texts.

```
model = keras.Sequential([
    keras.layers.Flatten(input_shape=(28, 28)),
    keras.layers.Dense(128, activation=tf.nn.relu),
    keras.layers.Dense(10, activation=tf.nn.softmax)
])
```

[\[Flatten\]](#) [\[Activation Functions\]](#)

```
class myCallback(tf.keras.callbacks.Callback):
    def on_epoch_end(self, epoch, logs={}):
        if(logs.get('loss')<0.4):
            print("\nLoss is low so cancelling training!")
            self.model.stop_training = True
```

A callback is an object that can perform actions at various stages of training (e.g. at the start or end of an epoch, before or after a single batch, etc).

[\[Callbacks API\]](#) [\[Writing a custom Callback as above\]](#)

