```
import tensorflow as tf
from tensorflow import keras

import os
os.environ['KMP_DUPLICATE_LIB_OK'] = 'True'

fashion_mnist = keras.datasets.fashion_mnist
(x_train_full, y_train_full),(x_test, y_test) = fashion_mnist.load_data()

import matplotlib as mpl
import matplotlib.pyplot as plt
import matplotlib.pyplot as plt
```

```
plt.imshow(x_train_full[1])
```

```
<matplotlib.image.AxesImage at 0x2bc5200ed1ed0>
```

```
x_train_full[1]
```

```
0
```

```
class_names = ['T-shirt/top','trouser','pullover','dress','coat','sandal','shirt','sneaker','bag','ankle boot']
```

```
class_names[y_train_full[1]]
```

```
't-shirt/top'
```

```
x_train_full[1]
```

```
array([[  0,  0,  0,  0,  0,  0,  1,  0,  0,  0,  0, 41, 188, 103,
        54,  0,  0,  0,  0,  0],
       [  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,
         0,  0,  0,  0,  0],
       [  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0, 23, 210, 228,
       255, 255, 255, 255, 217, 213,  0,  0,  0,  0,  0,  0,  0,  0,
         0,  0,  0,  0,  0],
       [  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0, 170, 251, 251,
       255, 255, 255, 255, 255, 255, 251, 249, 234, 194,  0,  0,  0,
         0,  0,  0,  0,  0],
       [  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,
         0,  0,  0,  0,  0],
       [  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,
         0,  0,  0,  0,  0],
       [  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0, 51, 216, 149,  0,
         0,  0,  0,  0,  0],
       [  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0, 116, 255, 251,
       255, 255, 255, 255, 251, 255, 255, 255, 255, 255, 255, 255,
       255, 255, 255, 255, 255],
       [  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,
         0,  0,  0,  0,  0
```