

## Understanding the data

```
X_train[0]#printing the first image
```

```
[ 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,  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,  3,
 18, 18, 18, 126, 136, 175, 26, 166, 255, 247, 127,  0,  0,
  0,  0],
[ 0,  0,  0,  0,  0,  0,  0,  0, 30, 36, 94, 154, 170,
253, 253, 253, 253, 253, 225, 172, 253, 242, 195, 64,  0,  0,
  0,  0],
[ 0,  0,  0,  0,  0,  0,  0, 49, 238, 253, 253, 253, 253,
253, 253, 253, 253, 251, 93, 82, 82, 56, 39,  0,  0,  0,
  0,  0],
[ 0,  0,  0,  0,  0,  0,  0, 18, 219, 253, 253, 253, 253,
253, 198, 182, 247, 241,  0,  0,  0,  0,  0,  0,  0,  0,
  0,  0],
[ 0,  0,  0,  0,  0,  0,  0,  0, 80, 156, 107, 253, 253,
205, 11,  0, 43, 154,  0,  0,  0,  0,  0,  0,  0,  0,
  0,  0],
[ 0,  0,  0,  0,  0,  0,  0,  0,  0,  0, 14,  1, 154, 253,
```

```
y_train[0]#printing lable of first image
```

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```
import matplotlib.pyplot as plt #used for data visualization
plt.imshow(X_train[0]) #ploting the index=0 image
```

<matplotlib.image.AxesImage at 0x1c397af32e0>

