Sprint 1

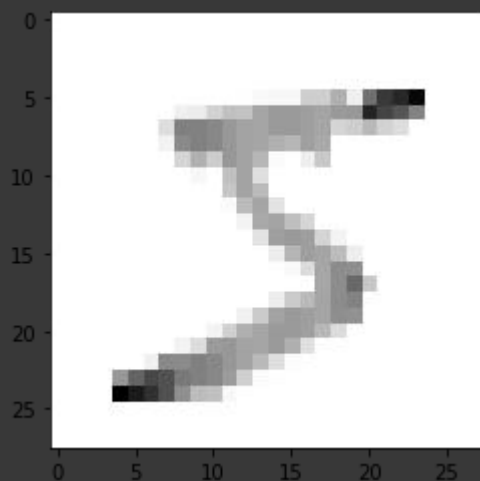| Date	28 October 2022
Team ID	PNT2022TMID17749
Project Name	A novel method for handwritten digit recognition system.
Maximum Marks	4 Marks

Sprint 1:

Data collection and preprocessing:

```python
import tensorflow as tf

mnist = tf.keras.datasets.mnist
(x_train, y_train),(x_test , y_test) = mnist.load_data()
x_train = tf.keras.utils.normalize(x_train , axis = 1)
x_test = tf.keras.utils.normalize(x_test , axis = 1)
plt.imshow(x_train[0] , cmap = plt.cm.binary)
import numpy as np
img_size = 28
x_trainer = np.array(x_train).reshape(-1,img_size,img_size,1)
x_tester = np.array(x_test).reshape(-1,img_size,img_size,1)
print('Training shape' , x_trainer.shape)
print('Testing shape' , x_tester.shape)
```

Output:

`<matplotlib.image.AxesImage at 0x7fe8400d5ad0>`


```
Training shape (60000, 28, 28, 1)
Testing shape (10000, 28, 28, 1)
```