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In [4]: """Tensor Flow Test Program"""
import tensorflow as tf
print(tf.__version__)
print(tf.reduce_sum(tf.random.normal([1000, 1000])))
```

2.8.0
tf.Tensor(-210.87173, shape=(), dtype=float32)

```
In [6]: """Keras Test Program"""
from tensorflow import keras
from keras import datasets
```

```
In [7]: #Loading dataset
(X_train, y_train), (X_test, y_test) = datasets.mnist.load_data()
```

```
In [8]: #Checking the dataset
print(X_train.shape)
print(X_test.shape)
```

(60000, 28, 28)
(10000, 28, 28)

```
In [10]: """Theano test program"""
#Python program showing addition of two scalars

# Import libraries
import theano
from theano import tensor

# Creating two floating-point scalars
x = tensor.dscalar()
y = tensor.dscalar()

# Creating addition expression
z = x + y

# Convert the expression into a callable object that takes (x,y) values as input
fun = theano.function([x, y], z)

# Pass 11.6 to 'x', 1.1 to 'y', and evaluate 'z'
fun(11.6, 1.1)
```

Out[10]: array(12.7)

```
In [11]: """Test program for PyTorch"""
## The usual imports
import torch
import torch.nn as nn
## print out the pytorch version used
print(torch.__version__)
```

1.12.1+cpu

