

In [1]:

```
# 2. Keras Test Program:
from tensorflow import keras
from keras import datasets
#
# Load MNIST data
#
(train_images, train_labels), (test_images, test_labels) = datasets.mnist.load_data()
#
# Check the dataset Loaded
#
train_images.shape, test_images.shape
```

Out[1]:

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

In [9]:

```
# 3. Theano test program
# Python program showing
# addition of two scalars
# Addition of two scalars
import numpy
import theano.tensor as T
from theano import function
# Declaring two variables
x = T.dscalar('x')
y = T.dscalar('y')
# Summing up the two numbers
z = x + y
# Converting it to a callable object
# so that it takes matrix as parameters
f = function([x, y], z)
f(5, 7)
```

Out[9]:

```
array(12.)
```

In [10]:

```
# 4. 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
```

