Program 1. Python program that demonstrates the use of the ReLU activation function in a basic neural network.

Aim:- Create a program that demonstrates the use of the ReLU activation function in a basic neural network.

Procedure:-

```
import tensorflow as tf
from tensorflow.keras import layers, models

                                    # Build a simple neural network with ReLU activation
model = models.Sequential([
    layers.Dense(32, input_shape=(10,), activation='relu'),
    layers.Dense(1, activation='sigmoid')
])

                                            # Display the model summary
model.summary()
```

Output:-

```
Model: "sequential"
_________________________________________________________________
Layer (type)                 Output Shape              Param #
=================================================================
dense (Dense)                (None, 32)                352
_________________________________________________________________
dense_1 (Dense)              (None, 1)                 33
=================================================================
Total params: 385
Trainable params: 385
Non-trainable params: 0
_________________________________________________________________
```