

AOBD: TensorFlow Part 1 and 2

Name: Patel Manav

Roll No.: AU1841037

problem:

```
InvalidArgumentError                                Traceback (most recent call last)
<ipython-input-8-2f99fde5c26> in <module>()
      1 row_vector = matrix[1]
----> 2 column_vector = matrix[:,2]
      3 scalar = matrix[1, 2]
      4
      5 print("`row_vector`: {}".format(row_vector.numpy()))

6 frames
/usr/local/lib/python3.7/dist-packages/six.py in raise_from(value, from_value)

InvalidArgumentError: slice index 2 of dimension 1 out of bounds. [Op:StridedSlice] name: strided_slice/
```

SEARCH STACK OVERFLOW

Solution: removed tf.string and made the elements of matrix a numbers

```
[12] ### Defining higher-order Tensors ###

'''TODO: Define a 2-d Tensor'''
matrix = tf.constant([[1,2,3,4,5],[1,2,3,4,5]])

assert isinstance(matrix, tf.Tensor), "matrix must be a tf Tensor object"
```

Problem

```
TypeError                                Traceback (most recent call last)
<ipython-input-24-b4f510db095f> in <module>()
      2 a, b = 1.5, 2.5
      3 # Execute the computation
----> 4 e_out = func(a,b)
      5 print(e_out)

3 frames
/usr/local/lib/python3.7/dist-packages/tensorflow/python/ops/gen_math_ops.py in sub(x, y, name)
    10302     try:
    10303         _result = pywrap_tfe.TFE_Py_FastPathExecute(
> 10304         _ctx, "Sub", name, x, y)
    10305     return _result
    10306 except _core._NotOkStatusException as e:

TypeError: Cannot convert 2.5 to EagerTensor of dtype int32
```

SEARCH STACK OVERFLOW

Solution: removed “tf.constant(1)” and replaced it with “1”

```
▶ ### Defining Tensor computations ###  
  
# Construct a simple computation function  
def func(a,b):  
    '''TODO: Define the operation for c, d, e (use tf.add, tf.subtract, tf.multiply).'''  
    c = tf.add(a,b)  
    d = tf.subtract(b,1)  
    e = tf.multiply(c,d)  
    return e
```
