


1. Single repo name - Dand-00
- 2.

a. Installation Proof

```
deep@acergpu940: ~  
deep@acergpu940:~$ python  
Python 2.7.12 (default, Nov 19 2016, 06:48:10)  
[GCC 5.4.0 20160609] on linux2  
Type "help", "copyright", "credits" or "license" for more information.  
>>> import sys  
>>> import numpy  
>>> import scipy  
>>> import sklearn  
>>> import matplotlib  
>>> import pandas  
>>> import tensorflow  
I tensorflow/stream_executor/dso_loader.cc:111] successfully opened CUDA library libcublas.so locally  
I tensorflow/stream_executor/dso_loader.cc:111] successfully opened CUDA library libcudnn.so locally  
I tensorflow/stream_executor/dso_loader.cc:111] successfully opened CUDA library libcufft.so locally  
I tensorflow/stream_executor/dso_loader.cc:111] successfully opened CUDA library libcuda.so.1 locally  
I tensorflow/stream_executor/dso_loader.cc:111] successfully opened CUDA library libcurand.so locally  
>>> print(sys.version)  
2.7.12 (default, Nov 19 2016, 06:48:10)  
[GCC 5.4.0 20160609]  
>>> print(numpy.__version__)  
1.12.0  
>>> print(scipy.__version__)  
0.17.0  
>>> print(sklearn.__version__)  
0.18.1  
>>> print(matplotlib.__version__)  
2.0.0  
>>> print(pandas.__version__)  
0.19.2  
>>> print(tensorflow.__version__)  
0.11.0rc2
```

b. Github class repo - DeepLearningF17.

CollaboratorsPush access to the repository

**Pablo Rivas**
Awaiting pablorp80's response

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c. Kaggle account - deepdand1

The image shows a screenshot of a Kaggle user profile for 'Deep Dand' and a welcome message from Mark from Kaggle.

Deep Dand Profile:

- Profile picture: A cartoon duck.
- Username: **Deep Dand**
- Joined: a few seconds ago
- Novice status: **Novice**
- Tasks to complete:
 - ☐ Add your bio
 - ☐ Add your location
 - ☐ Add your occupation
 - ☐ Add your organization
 - ☐ SMS verify your account
 - ☐ Run 1 kernel
 - ☐ Make 1 competition submission
 - ☐ Make 1 comment
 - ☐ Cast 1 upvote

Invesco Hiring:

-
- Invesco is hiring
- Lead Data Scientist**
- San Francisco, CA ; New York, NY

Recommended Competitions:

- Carvana Image Masking Chall...**
17 days remaining
- Digit Recognizer**
2 years remaining
- Titanic: Machine Learning fro...**

Welcome Message from Mark from Kaggle:

Hi @deepdand1,

Welcome to the community! [Go here](#) to find datasets for a project on our [open datasets platform](#).

If you're new to data science, I recommend getting started with [tutorials](#) on the [Titanic: Machine Learning From Disaster](#) competition.

We're excited you're here!

Reaction icons:

3. Problem 4.3

Answer a. - The multiplication is not possible since the dimensions doesn't meet matrix multiplication criteria. The criteria states that the number of columns of first matrix should be equal to number of rows of second matrix.

```
>>> import numpy as np
```

```
>>> import tensorflow as tf
```

```
>>> a = [[1,4,-3],[2,-1,3]]
```

```
>>> b = [[-2,0,5],[0,1,4]]
>>> np.matmul(a,b)
ValueError: shapes (2,3) and (2,3) not aligned: 3 (dim 1) != 2 (dim 0)
^
```

Answer b.

```
>>> import numpy as np
>>> import tensorflow as tf
>>> a = [[1,4,-3],[2,-1,3]]
>>> b = [[-2,0,5],[0,1,4]]
>>> at = np.transpose(a)
>>> at
array([[ 1,  2],
       [ 4, -1],
       [-3,  3]])
>>> result = np.matmul(at,b)
>>> result
>>> array([[ -2,  2, 13],
          [-8, -1, 16],
          [ 6,  3, -3]])
>>> rank = np.ndim(result)
>>> rank
2
```

Answer c.

```
>>> a = [[1,4,-3],[2,-1,3]]
>>> b = [[-2,0,5],[0,1,4]]
>>> c = [[1,0],[0,2]]
>>> bt = np.transpose(b)
>>> ci = np.linalg.inv(c)
>>> result = np.add(np.matmul(a,bt),ci)
>>> result
array([[ -16. ,  -8. ],
       [ 11. , 11.5]])
```