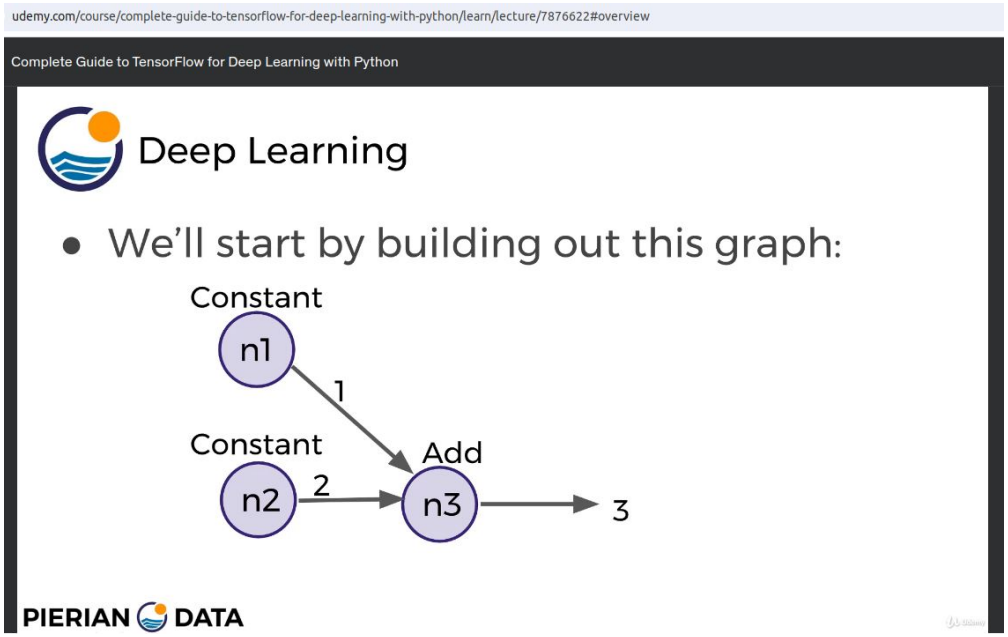
TensorFlow Graphs

In [1]:
```
import tensorflow as tf
```

We will be building



Simple Example

In [2]:
```
# nodes
n1 = tf.constant(1)
n2 = tf.constant(2)
```

In [3]:
```
n3 = n1 + n2
```

In [4]:
```
with tf.Session() as sess:
    result = sess.run(n3)
##endof:  with
```

In [5]:
```
print(result)
```

```
3
```

In [6]:
```
print(n3)
```

```
Tensor("add:0", shape=(), dtype=int32)
```

From the course materials,

> When you start TF, a default Graph is created, you can create additional graphs easily:

In [7]:
```
print(tf.get_default_graph())
```

```
<tensorflow.python.framework.ops.Graph object at 0x000002131EECFB70>
```

In [8]:
```
g = tf.Graph()
```

In [9]:
```
print(g)
```

```
<tensorflow.python.framework.ops.Graph object at 0x000002131EECFE48>
```

Different memory addresses.

From the course materials,

> Setting a graph as the default:

In [10]:
```
graph_one = tf.get_default_graph()
```

In [11]:
```
print(graph_one)
```

```
<tensorflow.python.framework.ops.Graph object at 0x000002131EECFB70>
```

In [12]:
```
graph_two = tf.Graph()
```

In [13]:
```
print(graph_two) # we have 3 graphs - g, graph_one, and graph_two
```

```
<tensorflow.python.framework.ops.Graph object at 0x000002131EEE4128>
```

In [14]:
```
with graph_two.as_default():
    print(graph_two is tf.get_default_graph())
```

```
True
```

In [15]:
```
# But, without the with
print(graph_two is tf.get_default_graph())
print('--')
print(graph_one is tf.get_default_graph())
```

```
False
--
True
```

That's all for now