TensorFlow中Session的用法

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所用版本：python3.5.2，tensorflow1.8.0，tensorboard1.8.0

In [1]:
```
# 简单实现
```

In [2]:
```
import tensorflow as tf
```

In [3]:
```
a = tf.add(2, 5)
```

In [4]:
```
b = tf.multiply(a, 3)
```

In [5]:
```
sess = tf.Session()
```

In [6]:
```
sess.run(b)
```

Out[6]: 21

In [7]:
```
sess.run([a, b])
```

Out[7]: [7, 21]

In [8]:
```
# feed_dict参数：覆盖数据流图中的张量对象
```

In [9]:
```
reset
```

```
Once deleted, variables cannot be recovered. Proceed (y/[n])? y
```

In [10]:
```
import tensorflow as tf
```

In [11]:
```
a = tf.add(2, 5)
```

In [12]:
```
b = tf.multiply(a, 3)
```

In [13]:
```
sess = tf.Session()
```

In [14]:
```
aa = {a: 15} # 将a值替换为15
```

In [15]:
```
sess.run(b, feed_dict=aa)
```

Out[15]: 45

In [16]:
```
sess.close()
```

In [17]:
```
# 输入与占位符
```

In [18]:
```
reset
```

```
Once deleted, variables cannot be recovered. Proceed (y/[n])? y
```

In [19]:
```
import tensorflow as tf
```

In [20]:
```
import numpy as np
```

In [21]:
```
# 创建一个长度为2，数据类型为int32的占位向量
```

In [22]:
```
a = tf.placeholder(tf.int32, shape=[2], name="my_imput")
```

In [23]:
```
# 将该占位向量视为其他任意张量对象，加以使用
```

In [24]:
```
b = tf.reduce_prod(a, name="prod_b")
```

In [25]:
```
c = tf.reduce_sum(a, name="sum_c")
```

In [26]:
```
# 完成数据流图的定义
```

In [27]:
```
d = tf.add(b ,c, name="add_d")
```

In [28]:
```
sess = tf.Session()
```

In [29]:
```
# 创建一个将传给feed_dict参数的字典
```

In [30]:
```
# 键：‘a’，指向占位符输出张量对象的句柄
```

In [31]:
```
# 值：一个值为[5, 3]，类型为int32的向量
```

In [32]:
```
aa = {a: np.array([5, 3], dtype=np.int32)}
```

In [33]:
```
# 计算d值，将aa的“值”传给a
```

In [34]:
```
sess.run(d, feed_dict=aa)
```

Out[34]: 23

In [35]:
```
# 这里计算d值依赖于a的输出
```

In [36]:
```
sess.close()
```