import tensorflow as tf

a=tf.constant(5)

b=tf.constant(15)

c=tf.add(a,b,name="add")

sess=tf.Session()

output=sess.run(c)

print(c)

print(output)

sess.close()

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import tensorflow as tf

a=tf.constant([[1,1,1],[1,1,1]],name="a")

b=tf.constant([[1,1,1],[1,1,1]],name="b")

c=tf.reduce\_sum(a,0)

with tf.Session() as sess:

output=sess.run(c)

print(output)

--------------

import tensorflow as tf

a=tf.constant(5)

b=tf.constant(15)

c=tf.multiply(a,b,name="c")

sess=tf.Session()

output=sess.run(c)

print(c)

print(output)

writer=tf.summary.Filter('./tfb1',sess.graph)

writer.close()

sess.close()

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import tensorflow as tf

x=tf.zeros([3, 4], tf.int32)

y=tf.zeros\_like([[2,3],[2,5]],tf.int32)

z=tf.ones([3, 4], tf.int32)

k=tf.linspace(10.0,20.0,3,name="l")

p=tf.range(10,40,2)

sess = tf.Session()

print(sess.run(p))

writer = tf.summary.FileWriter('./tfexample2',sess.graph)

writer.close()

sess.close()

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import tensorflow as tf

with tf.name\_scope('hidden') as scope:

a = tf.constant(5, name='alpha')

W = tf.Variable(tf.random\_uniform([1, 2], -1.0, 1.0), name='weights')

b = tf.Variable(tf.zeros([1]), name='biases')

sess = tf.Session()

print(sess.run(W))

writer = tf.summary.FileWriter('./tfexample2',sess.graph)

writer.close()

sess.close()

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import tensorflow as tf

x=tf.zeros([3, 4], tf.int32)

y=tf.zeros\_like([[2,3],[2,5]],tf.int32)

z=tf.ones([3, 4], tf.int32)

k=tf.linspace(10.0,20.0,3,name="l")

p=tf.range(10,40,2)

sess = tf.Session()

print(sess.run(p))

writer = tf.summary.FileWriter('./tfexample2',sess.graph)

writer.close()

sess.close()

**More Samples**

import tensorflow as tf

x=tf.constant(35,name="x")

y=tf.Variable(x+5,name='y')

init=tf.global\_variables\_initializer()

sess=tf.Session()

sess.run(init)

print(sess.run(y))

sess.close()

import tensorflow as tf

x=tf.Variable(0,name='x')

model =tf.global\_variables\_initializer()

with tf.Session() as session:

session.run(model)

for i in range(5):

x=x+i

print(session.run(x))

import tensorflow as tf

p1=tf.placeholder(tf.float32)

p2=tf.placeholder(tf.float32)

p3=tf.placeholder(tf.float32)

sess =tf.Session()

sess.run(tf.global\_variables\_initializer())

psum=tf.add\_n([p1,p2,p3])

print(sess.run(psum,feed\_dict={p1:10,p2:20,p3:30}))

writer=tf.summary.FileWriter('./tfb2',sess.graph)

writer.close()

sess.close()

import tensorflow as tf

sess=tf.Session()

print(sess.run(tf.div(3,4)))

print(sess.run(tf.truediv(3,4)))

print(sess.run(tf.floordiv(3.0,4.0)))

print(sess.run(tf.mod(22.0,5.0)))

print(sess.run(tf.cross([1.,0.,0.],[0.,1.,0.])))

print(sess.run(tf.sin(3.1416)))

print(sess.run(tf.cos(3.1416)))

print(sess.run(tf.tan(3.1416/4)))

def ploy(x):

return(tf.subtract(3\*tf.square(x),x)+10)

#return(tf.subtract(x,x)+x)

for n in range(1,12):

print(sess.run(ploy(n)))

writer=tf.summary.FileWriter('tfb3',sess.graph)

sess.close()

import numpy as np

import tensorflow as tf

x = tf.placeholder(tf.float32,(3,4))

y = x

sess = tf.Session()

#print(sess.run(y)) # will cause an error

s = np.random.rand(3,4)

k=sess.run(y, feed\_dict={x:s})

print(k)

sess.close()

import tensorflow as tf

a=tf.Variable(2,name="scalar")

a\_times\_two=a.assign(a\*2)

init = tf.global\_variables\_initializer()

with tf.Session() as sess:

sess.run(init)

sess.run(a\_times\_two)

sess.run(a\_times\_two)

print(sess.run(a\_times\_two))

'''

W=tf.Variale(10)

with tf.Session() as sess:

sess.run(W.initializer)

print(sess.run(W.assign\_add(10))

# print(sess.run(W.assign\_sub(2))

'''

import tensorflow as tf

a = tf.placeholder(tf.float32, shape=[3])

b = tf.constant([5, 5, 5], tf.float32)

c = a + b # short for tf.add(a, b)

with tf.Session() as sess:

print(sess.run(c,feed\_dict= {a: [1, 2, 3]}))

x= tf.placeholder(tf.float32)

x=tf.add(2,3)

c = tf.multiply(x, 3)

with tf.Session() as sess:

print(sess.run(c))

print(sess.run(c, feed\_dict={x: 15}))