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In [1]: #Lab 3
import tensorflow as tf
%load_ext tensorboard
#Load tensorBoard extension

with tf.compat.v1.Session() as session:
    a = tf.constant(4,name="input_A")
    b = tf.constant(6,name="input_b")
    c = tf.add(a,b,name="Result")
    writer = tf.compat.v1.summary.FileWriter("./logs",session.graph)
    print(session.run(c))
    session.close()
```

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In [2]: #Q1 Expression: (a+b)*(c-d)*(e/f)
import tensorflow as tf
%reload_ext tensorboard
%load_ext tensorboard
#Load tensorBoard extension

with tf.compat.v1.Session() as session:
    a = tf.constant(4.0,name="input_A")
    b = tf.constant(6.1,name="input_b")
    ans_1 = tf.add(a,b,name="input_1")
    c = tf.constant(4.2,name="input_c")
    d = tf.constant(6.1,name="input_d")
    ans_2 = tf.subtract(c,d,name="input_2")
    e = tf.constant(18.0,name="input_e")
    f = tf.constant(6.0,name="input_f")
    ans_3 = tf.divide(c,d,name="input_3")
    ans_4 = tf.multiply(ans_1,ans_2,name="product_1")
    final = tf.multiply(ans_4,ans_3,name="product_final")
    writer = tf.compat.v1.summary.FileWriter("./logs",session.graph)
    print(session.run(final))
    session.close()
```

The tensorboard extension is already loaded. To reload it, use:

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%reload_ext tensorboard
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In [3]: #Q2: (x1-x2)*(x3+x4+x5)
import tensorflow as tf
%reload_ext tensorboard
%load_ext tensorboard
#Load tensorBoard extension

with tf.compat.v1.Session() as session:
    x1 = tf.constant(4.0,name="input_x1")
    x2 = tf.constant(6.1,name="input_x2")
    ans_1 = tf.add(x1,x2,name="input_1")
    x3 = tf.constant(4.2,name="input_x3")
    x4 = tf.constant(6.1,name="input_x4")
    x5 = tf.constant(18.0,name="input_x5")
    ans_3 = tf.add(x3,x4,name="input_2")
```

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ans_4 = tf.add(x5,ans_3,name="input_2")
final = tf.multiply(ans_4,ans_1,name="product_final")
writer = tf.compat.v1.summary.FileWriter("./logs",session.graph)
print(session.run(final))
session.close()
```

The tensorboard extension is already loaded. To reload it, use:

```
%reload_ext tensorboard
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In [4]: # rm -rf Logs/
# to delete Logs
import tensorflow as tf
%reload_ext tensorboard
%load_ext tensorboard
#Load tensorBoard extension

with tf.compat.v1.Session() as session:
    x1 = tf.constant(4.0,name="input_x1")
    x2 = tf.constant(6.1,name="input_x2")
    x3 = tf.constant(4.2,name="input_x3")
    x4 = tf.constant(6.1,name="input_x4")
    ans_1 = tf.add(x1,x2,name="Hidden_layer_1")
    ans_1_1 = tf.add(ans_1,x3,name="Hidden_layer_1")
    ans_2 = tf.add(x2,x3,name="Hidden_layer_1_2")
    ans_3 = tf.add(x1,x4,name="Hidden_layer_1_3")
    ans_4 = tf.add(ans_1_1,ans_2,name="Hidden_layer_2_1")
    ans_5 = tf.add(ans_2,ans_3,name="Hidden_layer_2_2")
    final = tf.add(ans_4,ans_5,name="Output_layer")
    writer = tf.compat.v1.summary.FileWriter("./logs",session.graph)
    print(session.run(final))
    session.close()
```

The tensorboard extension is already loaded. To reload it, use:

```
%reload_ext tensorboard
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