```
import tensorflow as tf
```

placeholders

```
tf.placeholder(dtype, shape=None, name=None)
```

Variables

```
tf.Variable(initial_value=None, trainable=True, collections=None, name=None, dtype=None, ...)
```

Show Variable

```
with tf.Session() as sess:
print sess.run(x)
```

Step 1: Read in data

Step 2: Create placeholders for inputs and labels

```
tf.placeholder(dtype, shape=None, name=None)
```

Step 3: Create weight and bias

```
tf.Variable(initial_value=None, trainable=True, collections=None, name=None, dtype=None, ...)
```

Step 4: Build model to predict Y

```
Y_predicted = X * w + b
```

Step 5: Specify loss function

```
tf.square(Y - Y_predicted, name="loss")
```

Step 6: Create optimizer

```
tf.train.GradientDescentOptimizer(learning_rate=0.01).minimize(loss)
```

Phase 2: Train model

Initialize variables

Run optimizer op (with data fed into placeholders for inputs and labels)