

```
In [3]: import tensorflow as tf
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
```

```
In [18]: dataset = pd.read_csv('./centigradosFarenheit.csv')
c = dataset.iloc[:,0:1].values
c = c.astype(float)
f = dataset.iloc[:,1:2].values
f = f.astype(float)
```

```
In [21]: model = tf.keras.Sequential([
    tf.keras.layers.Dense(units=1, input_shape=[1])
])
```

```
In [22]: model.compile(loss='mean_squared_error',
                        optimizer=tf.keras.optimizers.Adam(0.1),
                        metrics=['mean_squared_error'])
```

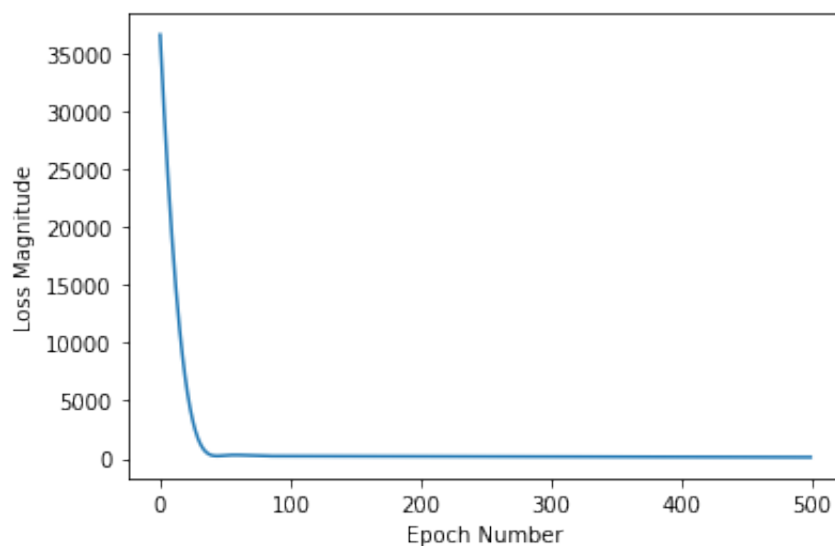
```
In [23]: history = model.fit(c, f, epochs=500, verbose=False)
print("Finished training the model")
```

Finished training the model

```
In [24]: history.params
```

```
Out[24]: {'verbose': False, 'epochs': 500, 'steps': 1}
```

```
In [25]: plt.xlabel('Epoch Number')
plt.ylabel("Loss Magnitude")
plt.plot(history.history['loss'])
plt.show()
```



```
In [30]: print(model.predict([12.0]))
```

```
1/1 [=====] - 0s 55ms/step
[[54.456665]]
```

```
In [ ]:
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```
In [31]: l0 = tf.keras.layers.Dense(units=4, input_shape=[1])
l1 = tf.keras.layers.Dense(units=4)
l2 = tf.keras.layers.Dense(units=1)

model = tf.keras.Sequential([l0, l1, l2])

model.compile(loss='mean_squared_error',
              optimizer=tf.keras.optimizers.Adam(0.1),
              metrics=['mean_squared_error'])

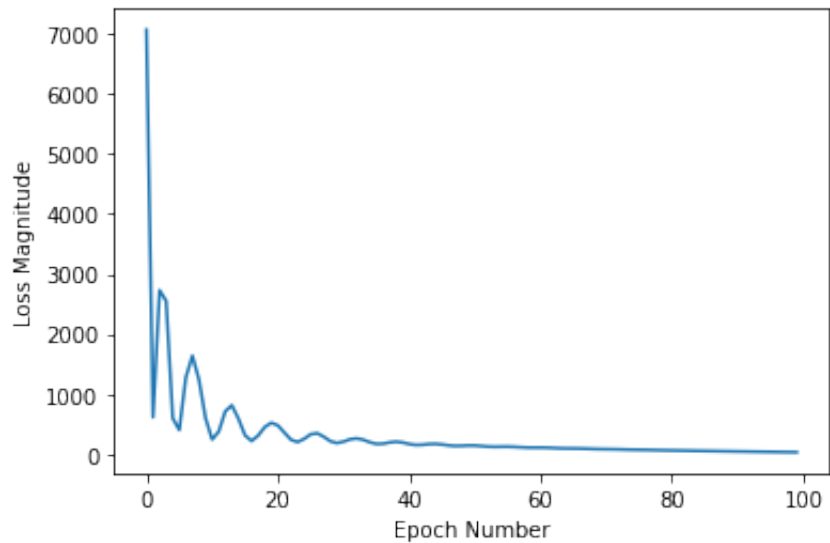
history = model.fit(c, f, epochs=100, verbose=False)
print("Finished training the model")

print(model.predict([12.0]))

plt.xlabel('Epoch Number')
plt.ylabel("Loss Magnitude")
plt.plot(history.history['loss'])
```

Finished training the model  
1/1 [=====] - 0s 101ms/step  
[[44.602074]]

Out[31]: [matplotlib.lines.Line2D at 0x7f9d759abbe0]



In [ ]:

In [ ]:

In [ ]: