In [67]:

```
import seaborn as sns
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
%matplotlib inline
```

In [68]:

```
BTC = pd.read_csv('btcdata.csv')
```

In [69]:

```
BTC.head()
```

Out[69]:

	Date	Price	Open	High	Low	Vol.	Change %
0	Nov 26, 2021	56,810.3	58,937.3	59,151.1	56,678.6	57.80K	-3.61%
1	Nov 25, 2021	58,935.1	57,167.1	59,387.3	57,029.8	56.79K	3.08%
2	Nov 24, 2021	57,171.7	57,559.4	57,697.4	55,910.6	56.68K	-0.70%
3	Nov 23, 2021	57,573.2	56,304.8	57,855.1	55,542.5	72.48K	2.25%
4	Nov 22, 2021	56,308.8	58,719.7	59,288.3	55,656.8	76.45K	-4.10%

In [70]:

```
BTC.tail()
```

Out[70]:

	Date	Price	Open	High	Low	Vol.	Change %
691	Jan 05, 2020	7,372.5	7,376.8	7,501.0	7,345.6	628.14K	-0.06%
692	Jan 04, 2020	7,376.8	7,345.1	7,433.1	7,291.4	523.91K	0.46%
693	Jan 03, 2020	7,343.1	6,967.1	7,402.9	6,884.1	936.29K	5.40%
694	Jan 02, 2020	6,967.0	7,199.7	7,209.6	6,901.4	632.78K	-3.23%
695	Jan 01, 2020	7,199.8	7,196.4	7,259.4	7,180.0	420.28K	0.05%

In [71]:

```
BTC['Price'] = BTC['Price'].str.replace(',', '')
BTC['Open'] = BTC['Open'].str.replace(',', '')
BTC['High'] = BTC['High'].str.replace(',', '')
BTC['Low'] = BTC['Low'].str.replace(',', '')
BTC['Vol.'] = BTC['Vol.'].str.replace('.', '')
BTC['Vol.'] = BTC['Vol.'].str.replace('K', '000')
BTC['Vol.'] = BTC['Vol.'].str.replace('M', '000000')
BTC['Change %'] = BTC['Change %'].str.replace('%', '')
```

In [72]:

```
BTC.columns
```

Out[72]:

```
Index(['Date', 'Price', 'Open', 'High', 'Low', 'Vol.', 'Change %'], dtype='o
bject')
```

In [73]:

```
BTC.drop('Date',axis=1,inplace=True)
```

In [74]:

```
X = BTC[['Open', 'High', 'Low', 'Vol.', 'Change %']]
y = BTC['Price']
```

In [75]:

```
from sklearn.model_selection import train_test_split
```

In [76]:

```
 X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.4, random_state=101)
```

In [77]:

```
from sklearn.linear_model import LinearRegression
```

In [78]:

```
lm= LinearRegression()
```

In [82]:

```
lm.fit(X_train, y_train)
```

Out[82]:

```
LinearRegression()
```

In [84]:

```
#Intercept

print(lm.intercept_)
```

```
-32.67043023731094
```

In [86]:

```
#Coeff
coeff_df = pd.DataFrame(lm.coef_, X.columns, columns=['Coefficients'] )
coeff_df
```

Out[86]:

	Coefficients
Open	-9.784005e-02
High	6.166162e-01
Low	4.799555e-01
Vol.	4.685599e-08
Change %	9.966562e+01

In [87]:

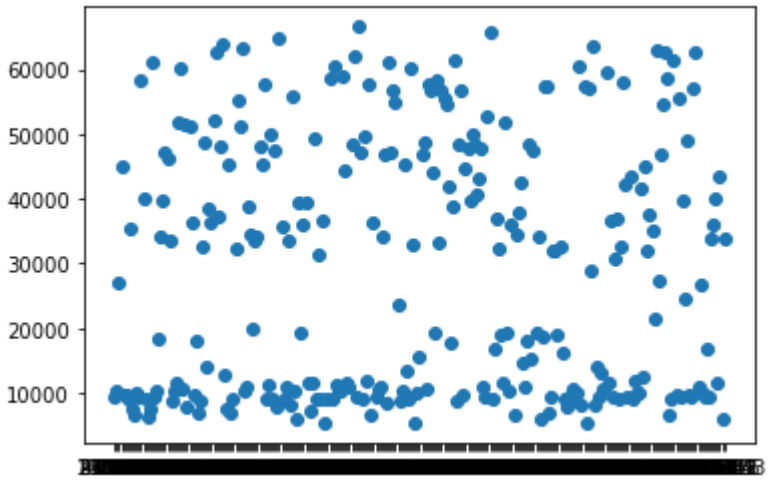
```
predictions = lm.predict(X_test)
```

In [88]:

```
plt.scatter(y_test,predictions)
```

Out[88]:

```
<matplotlib.collections.PathCollection at 0x7f72e5da7390>
```



In [90]:

```
from sklearn import metrics
```

In [92]:

```
print('MAE:' , metrics.mean_absolute_error(y_test, predictions))
print('MSE:' , metrics.mean_squared_error(y_test, predictions))
print('RMSE:' , np.sqrt(metrics.mean_squared_error(y_test, predictions)))
```

```
MAE: 327.10250633041227
MSE: 228106.5406666407
RMSE: 477.6050048592882
```

In [ ]:

```

```