In [1]:
```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
from sklearn.linear_model import LinearRegression
```

In [2]:
```
df = pd.read_csv('USA_Housing.csv')
```

In [3]:
```
X = df[['Avg. Area Income', 'Avg. Area House Age', 'Avg. Area Number of Rooms', 'Avg.
y = df['Price']
```

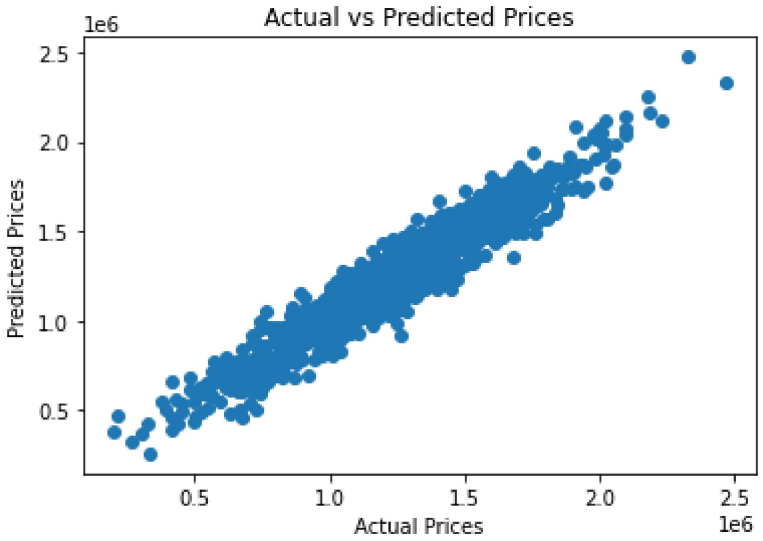
In [4]:
```
from sklearn.model_selection import train_test_split
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=
```

In [5]:
```
lr = LinearRegression()
lr.fit(X_train, y_train)
```

Out[5]:
```
LinearRegression()
```

In [6]:
```
y_pred = lr.predict(X_test)
```

In [7]:
```
plt.scatter(y_test, y_pred)
plt.xlabel('Actual Prices')
plt.ylabel('Predicted Prices')
plt.title('Actual vs Predicted Prices')
plt.show()
```



In [8]:
```
from sklearn.metrics import mean_squared_error, r2_score
print('Mean Squared Error: ', mean_squared_error(y_test, y_pred))
print('R-squared Value: ', r2_score(y_test, y_pred))
```

```
Mean Squared Error:  10089009300.893644
R-squared Value:  0.917997170683436
```

In [9]:
```
new_house = [[79545.45857, 5.682861321, 7.009188143, 4.1, 23086.8005]]
print('Predicted Price for New House: $', lr.predict(new_house))
```

```
Predicted Price for New House: $ [1224053.94583626]
```

```
C:\Users\selfk\anaconda3\lib\site-packages\sklearn\base.py:450: UserWarning: X does n
ot have valid feature names, but LinearRegression was fitted with feature names
  warnings.warn(
```

In [ ]: