```
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
from sklearn.linear_model import LinearRegression
from sklearn.model_selection import train_test_split
from sklearn.metrics import mean_squared_error, r2_score


data = pd.read_csv('train.csv')



print("Dataset Preview:\n", data[['GrLivArea', 'BedroomAbvGr', 'FullBath', 'SalePrice']].head())
```

```
Dataset Preview:
    GrLivArea  BedroomAbvGr  FullBath  SalePrice
0       1710             3         2     208500
1       1262             3         2     181500
2       1786             3         2     223500
3       1717             3         1     140000
4       2198             4         2     250000
```

```
X = data[['GrLivArea', 'BedroomAbvGr', 'FullBath']]
y = data['SalePrice']


X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)


model = LinearRegression()
model.fit(X_train, y_train)
```

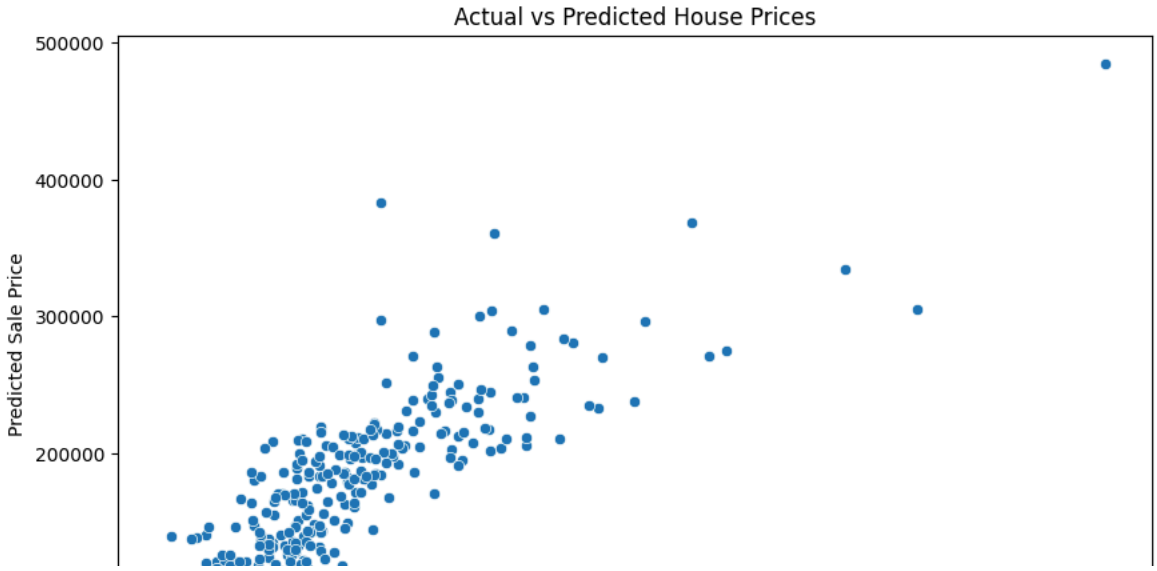
```
▾ LinearRegression
LinearRegression()
```

```
y_pred = model.predict(X_test)


print("Mean Squared Error:", mean_squared_error(y_test, y_pred))
print("R2 Score:", r2_score(y_test, y_pred))
```

```
Mean Squared Error: 2806426667.247853
R2 Score: 0.6341189942328371
```

```
plt.figure(figsize=(10,6))
sns.scatterplot(x=y_test, y=y_pred)
plt.xlabel("Actual Sale Price")
plt.ylabel("Predicted Sale Price")
plt.title("Actual vs Predicted House Prices")
plt.show()
```


Actual vs Predicted House Prices
Predicted Sale Price
500000
400000
300000
200000