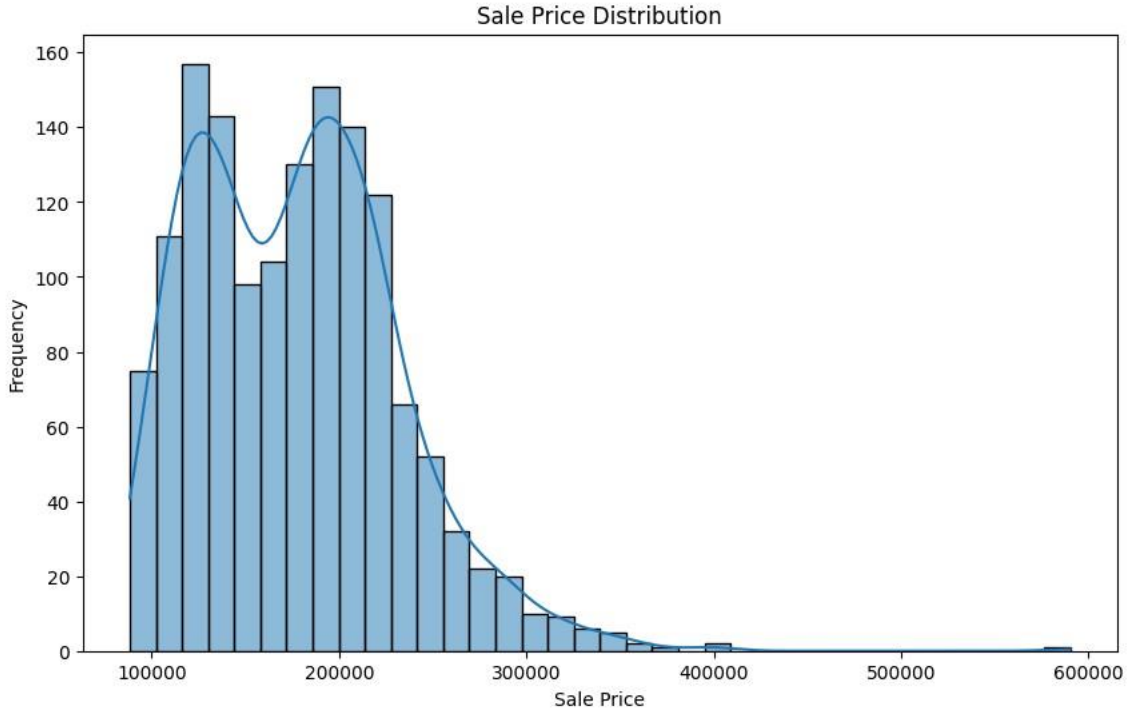
output from google Colab

```
First 5 rows:
     Id      SalePrice
0  1461  122343.475839
1  1462  142899.405464
2  1463  202352.108302
3  1464  202645.044724
4  1465  189910.077876
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 1459 entries, 0 to 1458
Data columns (total 2 columns):
 #   Column     Non-Null Count  Dtype
---  ------     --------------  -----
 0   Id         1459 non-null   int64
1   SalePrice  1459 non-null   float64
dtypes: float64(1), int64(1) memory
usage: 22.9 KB

Dataset info:
 None

Summary statistics:
                Id      SalePrice
count  1459.000000     1459.000000
mean    2190.000000  177804.692228
std      421.321334   54628.469768
min     1461.000000   88339.220127
25%    1825.500000  132751.261385
50%    2190.000000  177449.446963
75%    2554.500000  212153.787395
max    2919.000000  590127.190552

Missing values:
 Id           0
SalePrice    0
dtype: int64
```

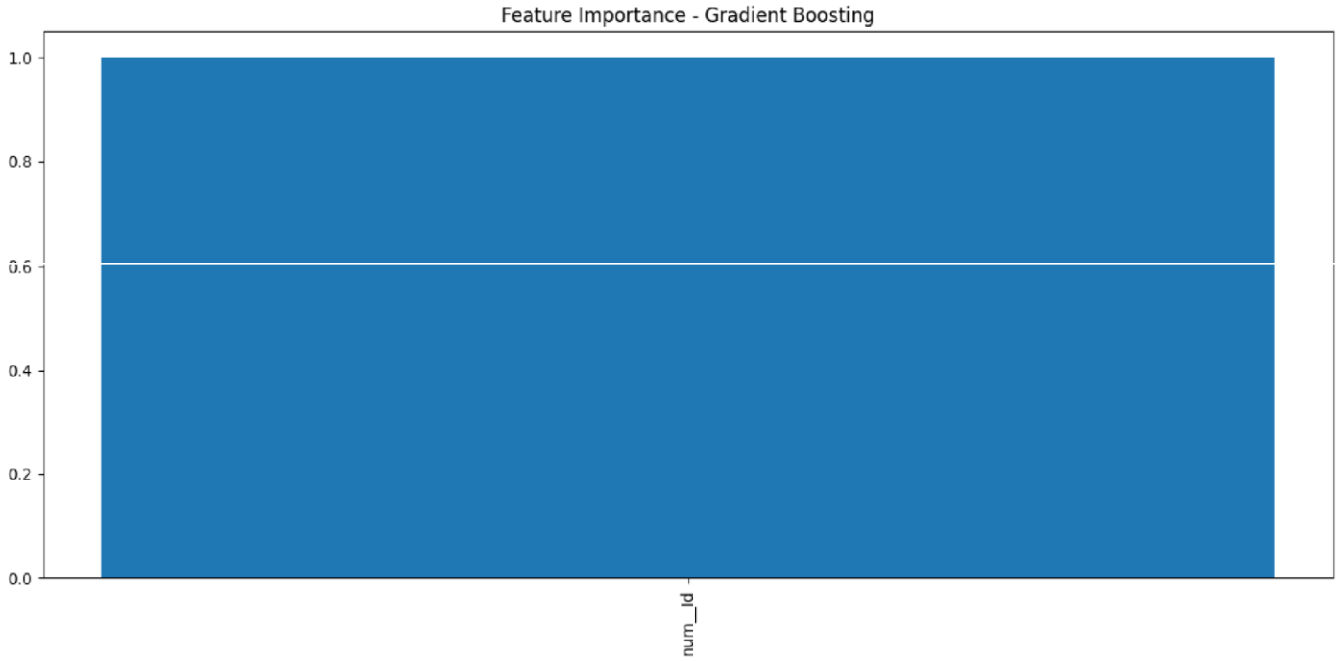



```
Linear Regression | Mean RMSE: 55058.1892, Std: 3474.5077
Ridge Regression | Mean RMSE: 55058.1622, Std: 3474.5707
Lasso Regression | Mean RMSE: 55058.1882, Std: 3474.5265
Random Forest | Mean RMSE: 50218.9096, Std: 2775.0667
Gradient Boosting | Mean RMSE: 49280.4260, Std: 2849.1767

Best model: Gradient Boosting

Performance on test set:
MSE: 2127006878.23
RMSE: 46119.48
R²: 0.22
```

output from google Colab




```
Fitting 3 folds for each of 8 candidates, totalling 24 fits
[CV] END ..learning_rate=0.01, max_depth=3, n_estimators=100; total time=   0.1s
[CV] END ..learning_rate=0.01, max_depth=3, n_estimators=100; total time=   0.1s
[CV] END ..learning_rate=0.01, max_depth=3, n_estimators=100; total time=   0.2s
[CV] END ..learning_rate=0.01, max_depth=3, n_estimators=200; total time=   0.3s
[CV] END ..learning_rate=0.01, max_depth=3, n_estimators=200; total time=   0.3s
[CV] END ..learning_rate=0.01, max_depth=3, n_estimators=200; total time=   0.3s
[CV] END ..learning_rate=0.01, max_depth=4, n_estimators=100; total time=   0.2s
[CV] END ..learning_rate=0.01, max_depth=4, n_estimators=100; total time=   0.2s
[CV] END ..learning_rate=0.01, max_depth=4, n_estimators=100; total time=   0.2s
[CV] END ..learning_rate=0.01, max_depth=4, n_estimators=200; total time=   0.4s
[CV] END ..learning_rate=0.01, max_depth=4, n_estimators=200; total time=   0.4s
[CV] END ..learning_rate=0.01, max_depth=4, n_estimators=200; total time=   0.4s
[CV] END ...learning_rate=0.1, max_depth=3, n_estimators=100; total time=   0.1s
[CV] END ...learning_rate=0.1, max_depth=3, n_estimators=100; total time=   0.1s
[CV] END ...learning_rate=0.1, max_depth=3, n_estimators=100; total time=   0.1s
[CV] END ...learning_rate=0.1, max_depth=3, n_estimators=200; total time=   0.2s
[CV] END ...learning_rate=0.1, max_depth=3, n_estimators=200; total time=   0.2s
[CV] END ...learning_rate=0.1, max_depth=3, n_estimators=200; total time=   0.2s
[CV] END ...learning_rate=0.1, max_depth=4, n_estimators=100; total time=   0.1s
[CV] END ...learning_rate=0.1, max_depth=4, n_estimators=100; total time=   0.1s
[CV] END ...learning_rate=0.1, max_depth=4, n_estimators=100; total time=   0.1s
[CV] END ...learning_rate=0.1, max_depth=4, n_estimators=200; total time=   0.2s
[CV] END ...learning_rate=0.1, max_depth=4, n_estimators=200; total time=   0.3s
[CV] END ...learning_rate=0.1, max_depth=4, n_estimators=200; total time=   0.3s

Tuned Gradient Boosting Regressor:
Best Params: {'learning_rate': 0.1, 'max_depth': 4, 'n_estimators': 100}
Test RMSE: 45341.90
Test R²: 0.24
Fitting 3 folds for each of 8 candidates, totalling 24 fits
[CV] END ..learning_rate=0.01, max_depth=3, n_estimators=100; total time=   0.1s
[CV] END ..learning_rate=0.01, max_depth=3, n_estimators=100; total time=   0.0s
[CV] END   l    i     t 0 01       d th 3       ti t     100 t t l ti      0 0
```