

ChatGPT

House Sale Price Prediction Using Quality, Living Area, and Garage

Question: How can the sale price of a house be predicted based on overall quality, living area size, and garage?

I built a simple multiple linear regression model using:

```
OverallQual  
GrLivArea  
GarageCars  
GarageArea
```

The fitted prediction formula is:

```
Predicted SalePrice  
= -93,845.68  
+ 26,709.85 x OverallQual  
+ 46.02 x GrLivArea  
+ 13,324.59 x GarageCars  
+ 37.28 x GarageArea
```

Model quality on a held-out test set:

```
R2: 0.762  
RMSE: $42,682  
MAE: $27,542
```

So this model explains about 76% of the variation in sale prices using just those variables.

Example prediction

For a house with:

```
OverallQual = 6  
GrLivArea = 1464  
GarageCars = 2  
GarageArea = 480
```

the predicted sale price is about \$178,325.

To predict any house, plug its values into the formula above.

Send me the house's OverallQual, GrLivArea, GarageCars, and GarageArea, and I'll calculate the price.