Home prices: Location, Location, Location..?

Not entirely.
An explanation by Ben Roberts
General Assembly Real Estate Services

The big question

Can we use data to predict how much a home will sell for in Ames, Iowa? Which features can we use to make that prediction? Is there a relationship between our features and the final sale price?

The data

We looked at:.

- **Previous home sales**
  Between 2006 and 2010
- **Hyperlocal**
  Ames, Iowa only
- **Home Features**
  80 different features such as square footage, bedrooms, baths,

What are you looking for? and why?

Correlation

A mutual relationship or connection between two or more things.

Features

Which things?

Predictions

What can they tell us? And how accurately can they do that?.

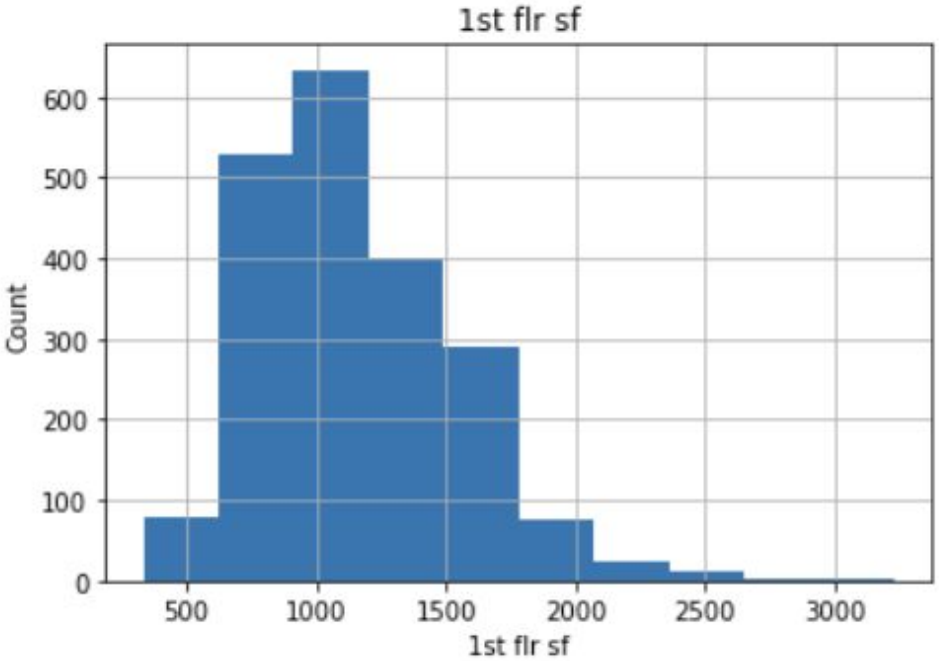
YES! We can do this.

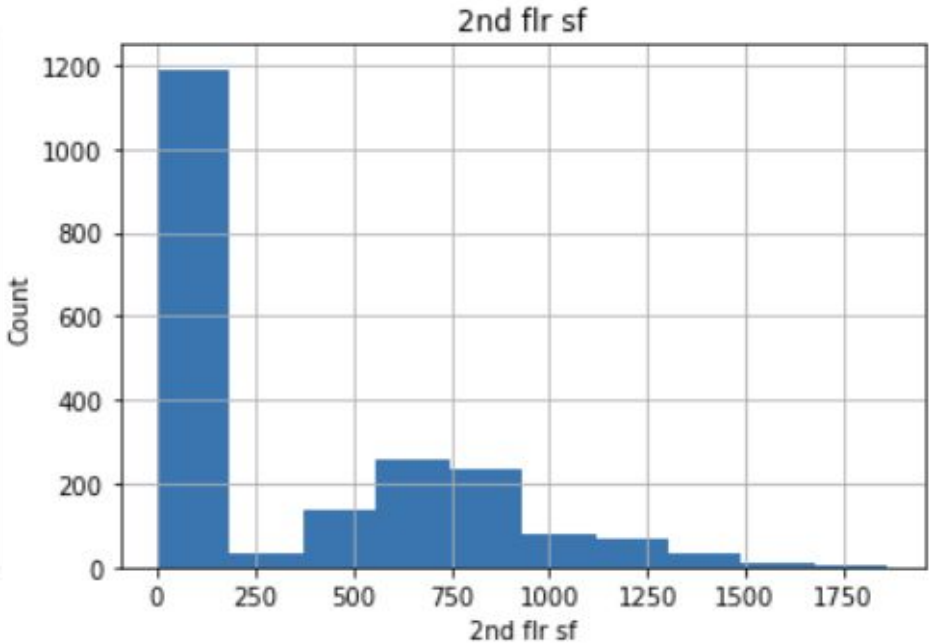
There is **absolutely a connection** between the final sale price of our homes and the home features that we were given.

We **can describe those relationships**...

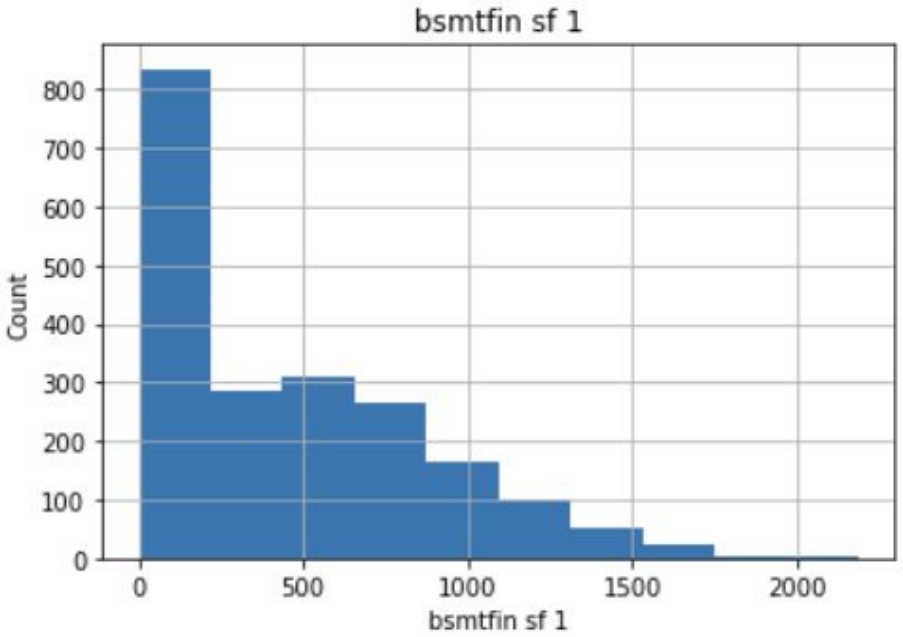
...and we did build an **accurate model** predicting sale prices in Ames, Iowa based on those relationships.

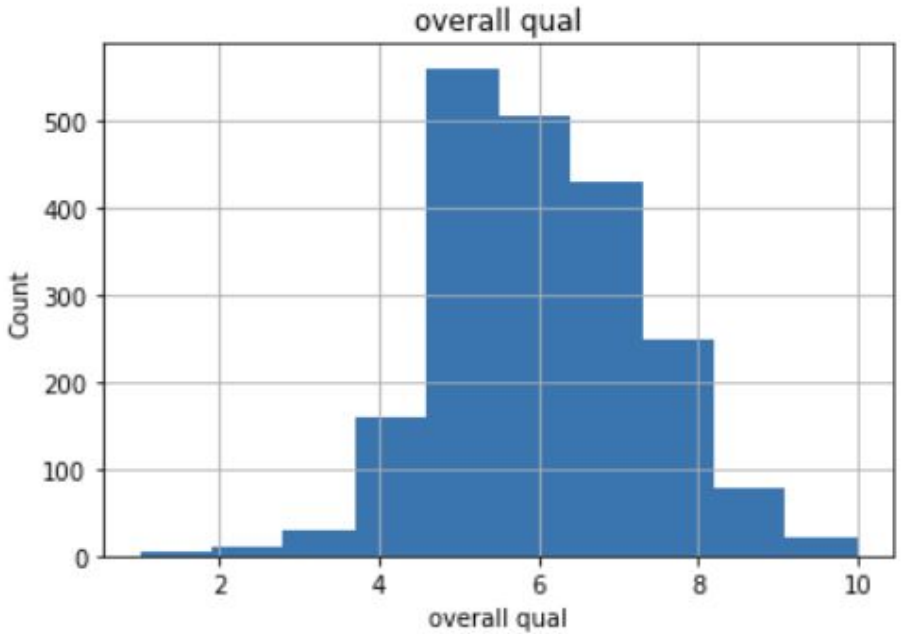
Home features square footage by floor





Home features basement size and overall quality





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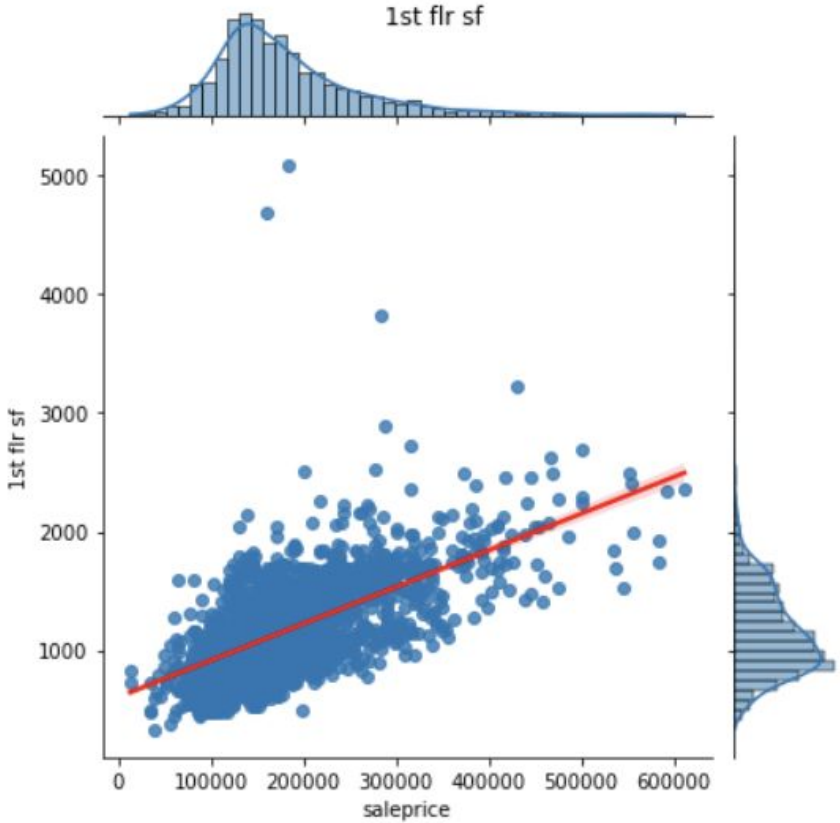

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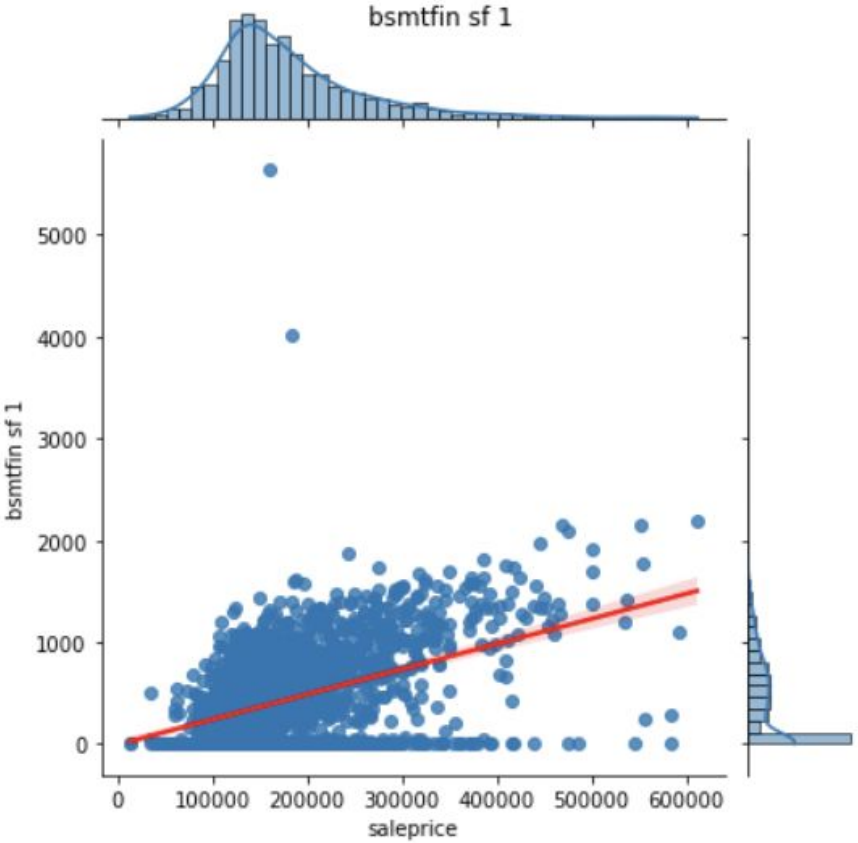
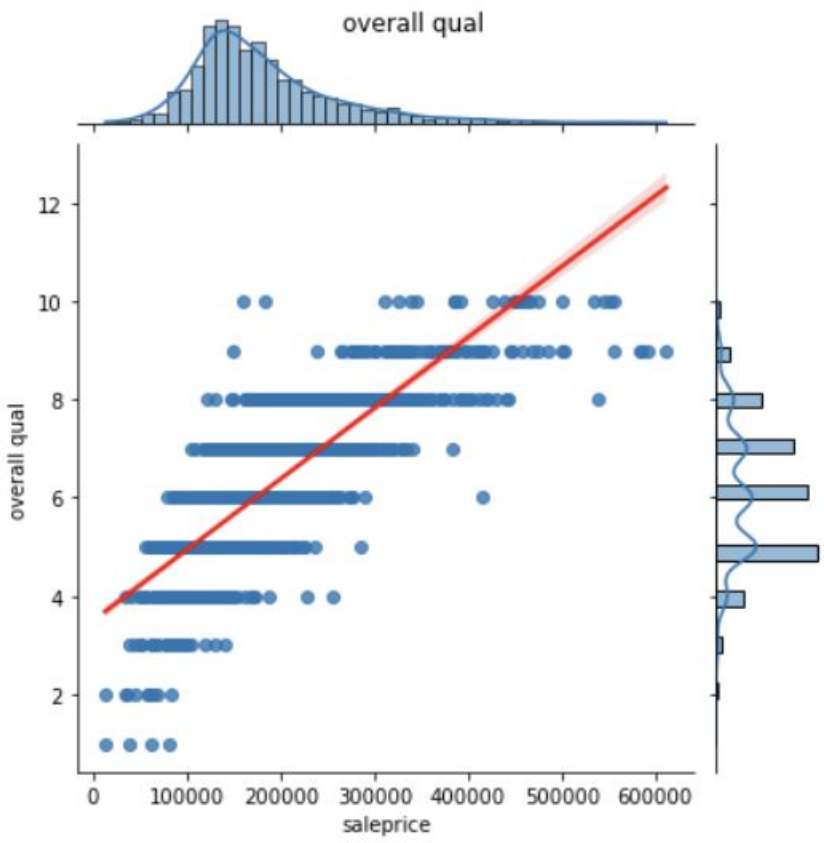
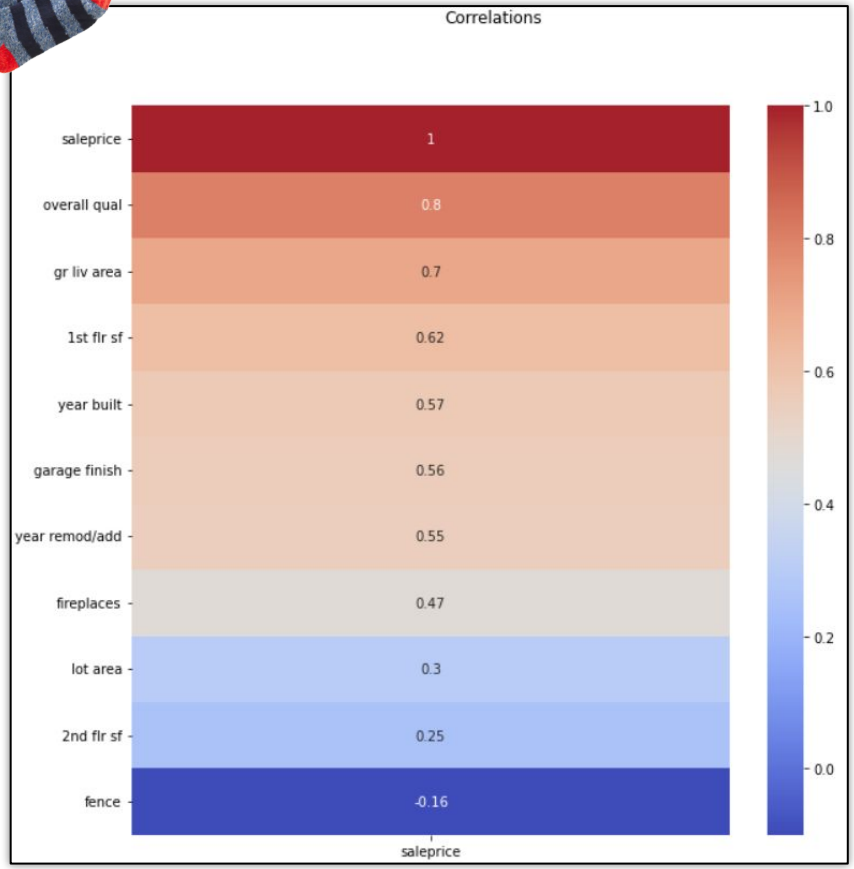
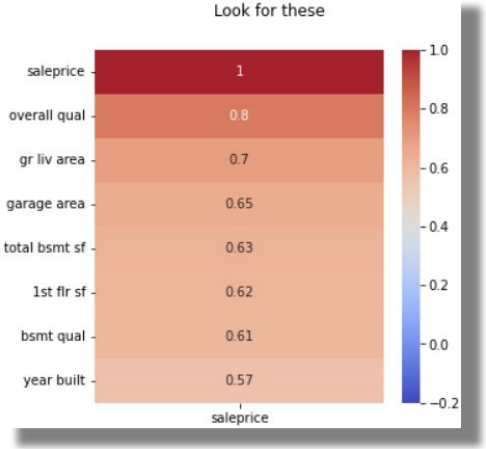
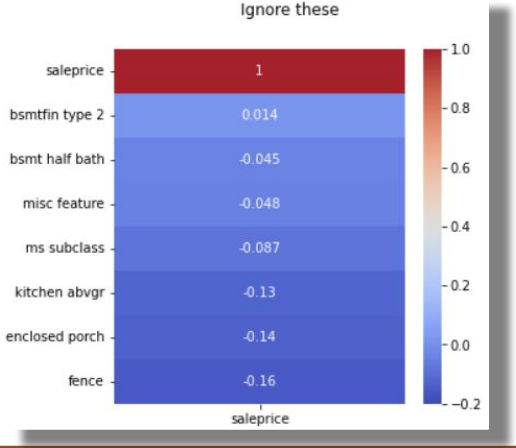





Correlations
saleprice
overall qual
gr liv area
1st flr sf
year built
garage finish
year remod/add
fireplaces
lot area
2nd flr sf
fence
1
0.8
0.7
0.62
0.57
0.56
0.55
0.47
0.3
0.25
-0.16
saleprice
1.0
0.8
0.6
0.4
0.2
0.0

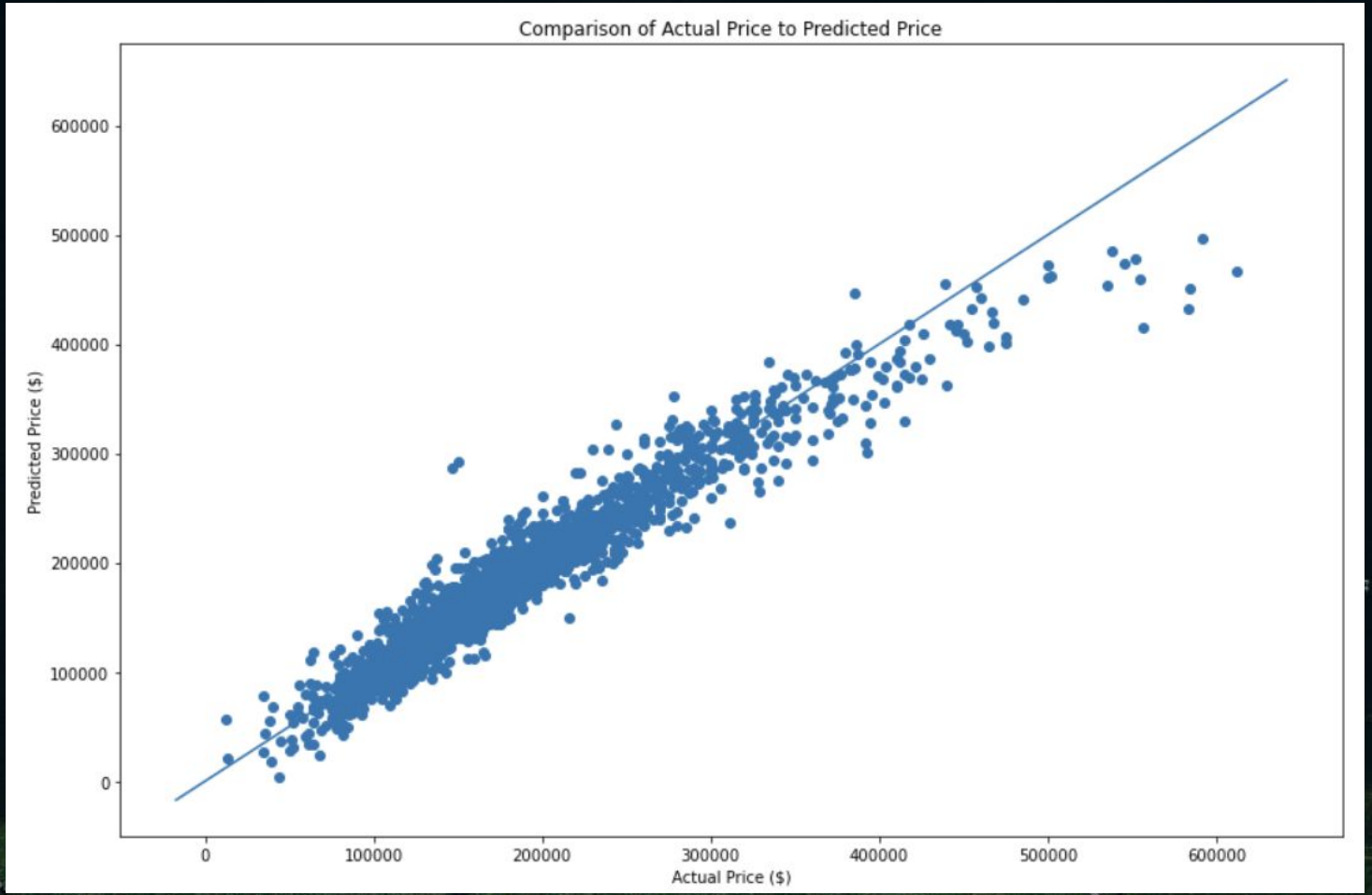

Look for these
saleprice
overall qual
gr liv area
garage area
total bsmt sf
1st flr sf
bsmt qual
year built
1
0.8
0.7
0.65
0.63
0.62
0.61
0.57
saleprice
1.0
0.8
0.6
0.4
0.2
0.0
−0.2


Ignore these
saleprice
bsmtfin type 2
bsmt half bath
misc feature
ms subclass
kitchen abvgr
enclosed porch
fence
1
0.014
-0.045
-0.048
-0.087
-0.13
-0.14
-0.16
saleprice
1.0
0.8
0.6
0.4
0.2
0.0
−0.2

We have the technology

The real model

90% accuracy



So what does this mean?

We are on the right track!

Refine the model
Then do it again
Build a scorecard

Shout out to the team!
Questions
and answers?