

# PREDICTING LONDON HOUSE PRICES

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KENNY HUNT

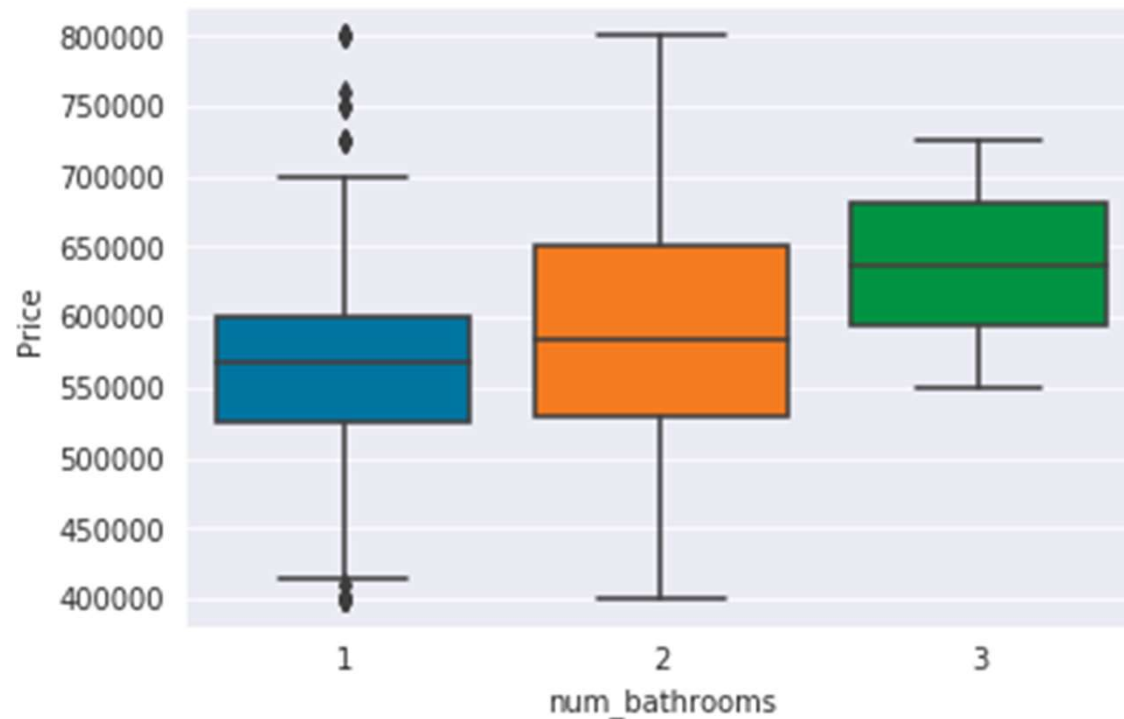
# EXPERIMENT

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- Import Data on current house prices from Zoopla API.
- Analyse on which variables have highest impact on house price
- Create Machine Learning Algorithm to predict house prices
- Analyse accuracy of Algorithm

## RELATIONSHIP BETWEEN PROPERTY PRICE AND NUMBER OF BATHROOMS

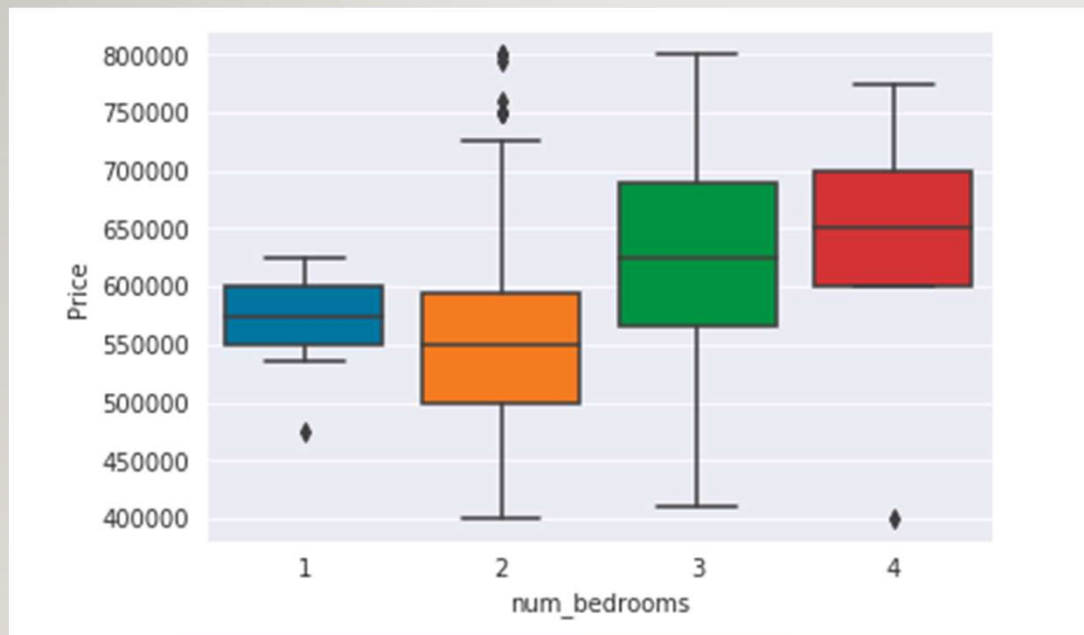
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- One bathroom property on average 550k
- Two bathroom property 580k
- Second bathroom costs 30k
- Significant Increase on 3 bathroom apartments as generally much larger

# RELATIONSHIP BETWEEN PROPERTY PRICE AND NUMBER OF BEDROOMS

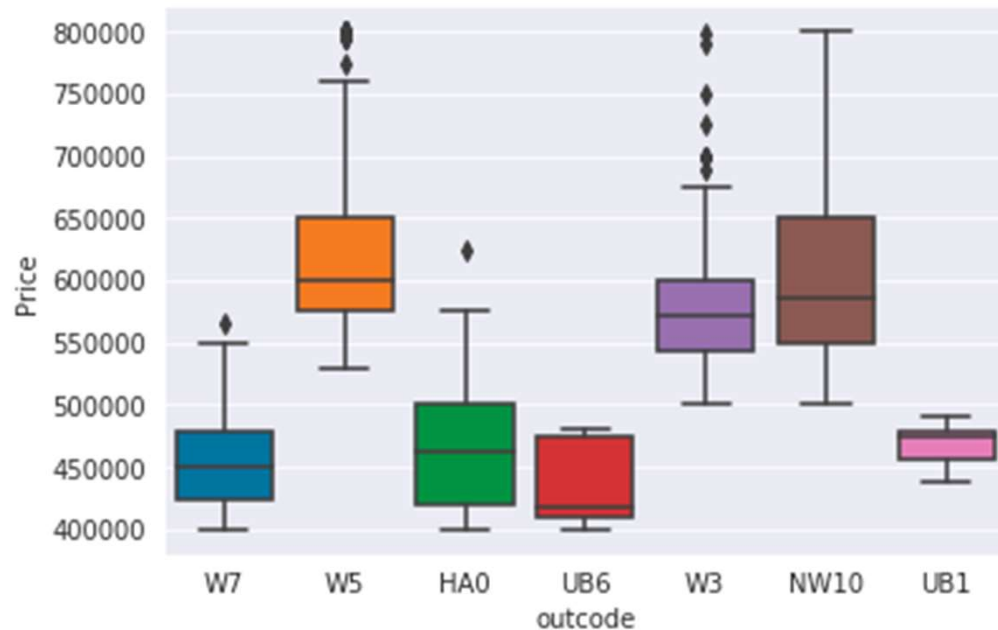
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- Strange results in the form of one-bed properties being more expensive on average than 2 beds.
- What causes this?
  - Build age?
  - Location?
- Expected linear relationship between 2/3/4 beds
- Further investigation required into one beds
  - They are located in two specific neighbourhoods.

# RELATIONSHIP BETWEEN PROPERTY PRICE AND NEIGHBOURHOOD

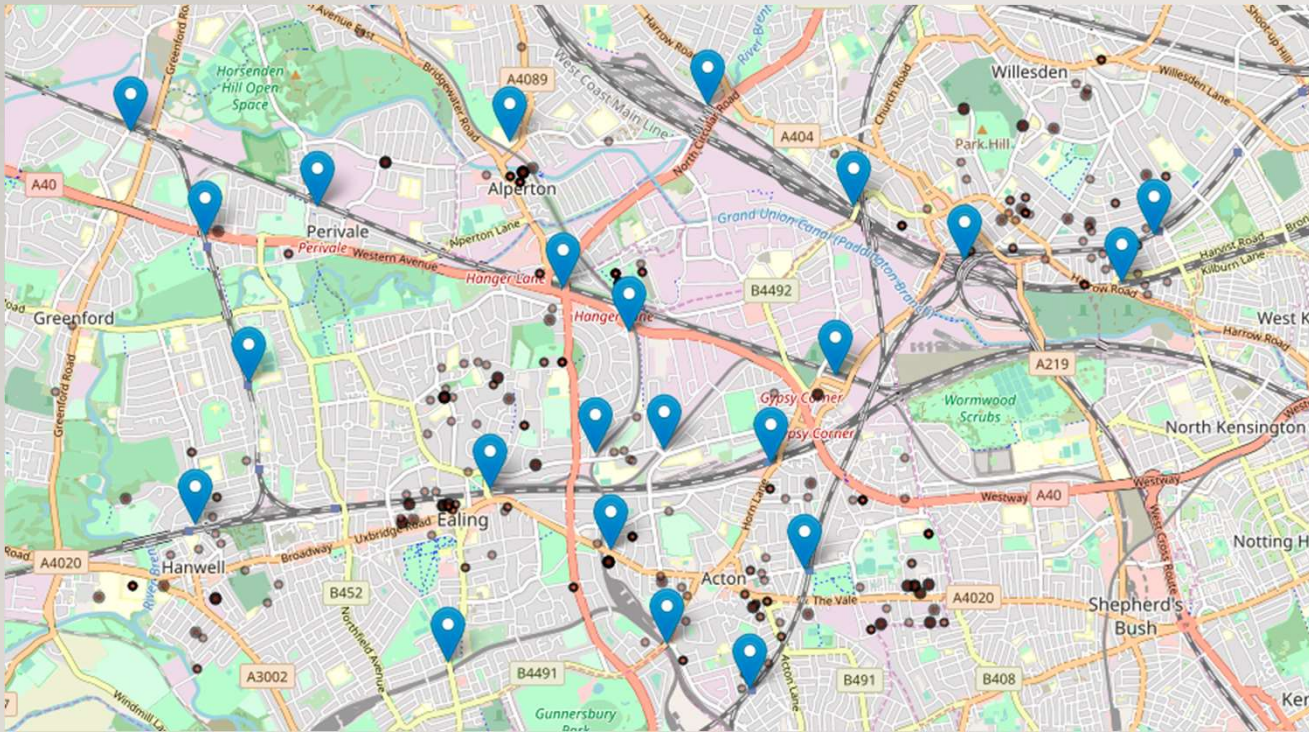
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- Significant relationship between outcode and price.
- Identifies previous analysis skewed due to the fact that the highest priced properties are in the same neighbourhoods that contain the one beds.
- Bias due to small dataset



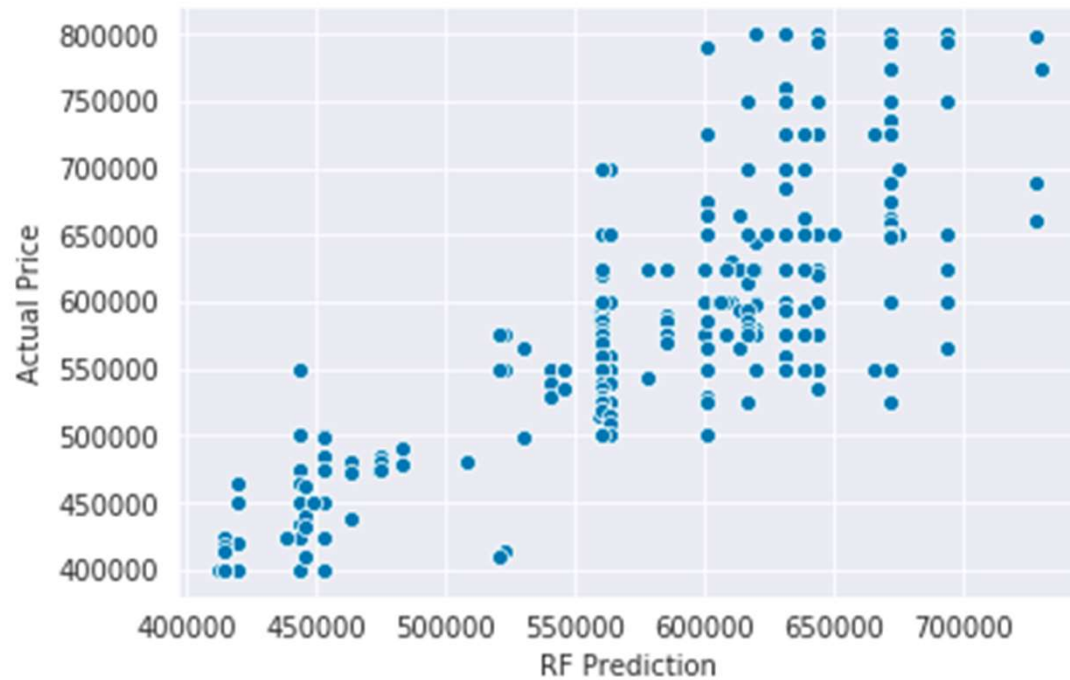
# RELATIONSHIP BETWEEN PROPERTY PRICE AND LOCATION TO TRANSPORT LINKS



- More expensive properties are located next to tube stations
- Less expensive properties are located further away
- Living close to a tube station costs an additional 30K
- Living close to a train station is cheaper than living close to a tube station by ~10k

# MODEL SCORE – RANDOM FOREST

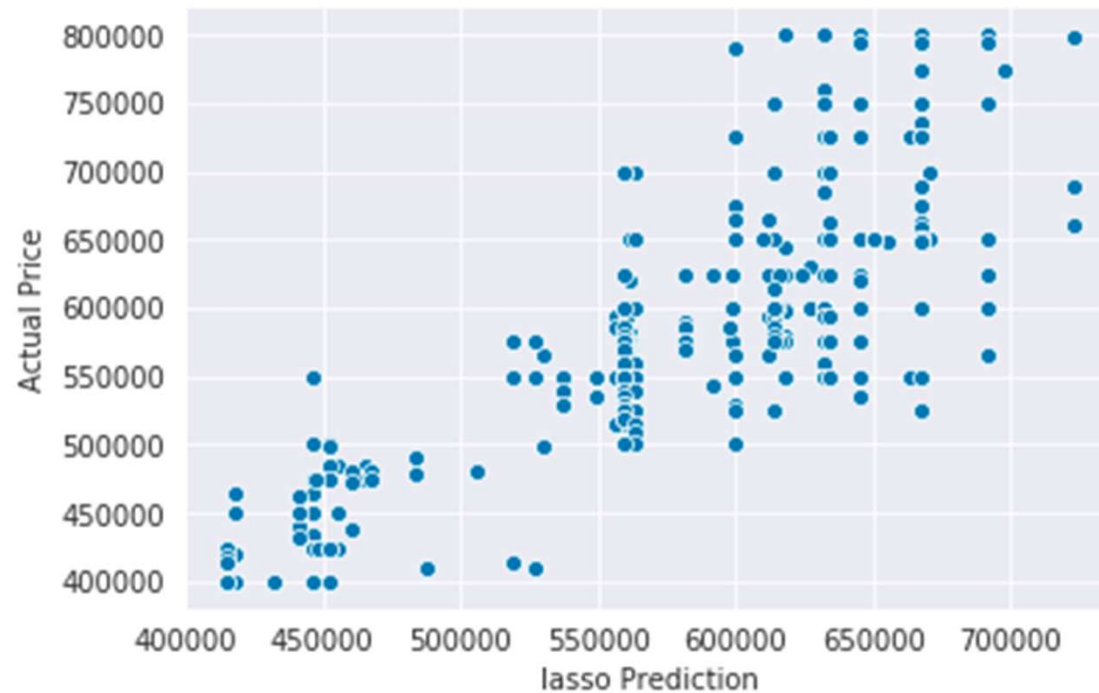
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- Slight linear relationship
- Need larger dataset to make more accurate

# MODEL SCORE - LASSO

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- Slight linear relationship
- Need larger dataset to make more accurate



# CONCLUSION

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- Strong analysis to understand underlying drivers of house prices in London
- Need a larger dataset to improve accuracy
- Improve analysis on one-bed properties
- Deep dive on what makes a specific neighbourhood more expensive?
  - Crime figures?
  - Amenities
  - Shopping Centres