Data Science Case Study

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RENTAL FLAG PREDICTION

OVERVIEW

As the rate of home ownership changes in the UK, there is a growing market of renters that are valuable to a range of businesses and industries. To provide that information, we built a feature in our property dataset that flags if the inhabitants are renters or homeowners. The task that is given to you is to attempt building one of your own, based on the sampled data provided, and any other resources you think suitable.

Please present your findings back, explain your process, any blockers you encountered and any future work you would have progressed with if you had more time.

OBJECTIVES

- Build a classifier for the rental status of properties
- Determine the rental status of all properties in the sample
- Use the provided data and any other resources you deem worthy of inclusion
- Use Python and its ecosystem
- Provide us your findings as if you're presenting it to stakeholders and explain your methodology. Submit code and relevant datasets for review.

DATA PROVIDED

Across tables, the properties are uniquely identified by a field labelled "prop_id". The tables are:

- property_for_test.csv:
  - A row for each property (prop_id) in the BS6 (Bristol) area
  - Attributes about that property
  - Indicators about the modelling state and confidence of these attributes
  - x/y coordinates are Ordnance Survey British National Grid coordinates
- prop_events_for_test.csv:
  - A row per event occurring for a property (prop_id) for a specified date
  - Event types:
    - survey: a mortgage valuation survey has been conducted on the property (https://www.moneyadviceservice.org.uk/en/articles/a-guide-to-homebuyer-surveys-and-costs#mortgage-valuation-survey)
    - sale: the property has been sold as indicated via HM Land Registry
    - l_rent: the property has been listed on an online website to be rented
    - l_for_sale: the property has been listed on an online website to be sold
    - l_rented: the property has been listed on an online website as "just rented"
    - l_sold: the property has been listed on an online website as "just sold"

Note: To protect the privacy of occupants, noise has been added to the provided data.

For further information, please contact Alexandre

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