**Proposal**

Real estate had potential contribution in urban economy growth, and accurate prediction of future price of estate property is significantly important. Therefore, the research question is **what are the important factors impacting the UK house price prediction and how can this impact be quantified?** This is a regression problem among the machine learning algorithms. The UK house price data could be found from UK datastore and the research question is inspired by study from Louati *et al.* (2022), who developed a set of machine learning algorithms to increase the effectiveness of the land price estimation in Riyadh city. Their algorithms included decision tree, random forest and linear regression. The results indicated that random forest had the best performance, while the other two had the similar results. Therefore, in my research, random forest will be used for investigating the significant factors impacting UK house price, as decision tree and linear regression generate the similar results, then only use linear regression model to compare the results with random forests. Finally pros and cons will be analyzed for both methods, and conclude the benefits of different methods in different context.

**Reference**

Louati, A. *et al.* (2022) ‘Price forecasting for real estate using machine learning: A case study on Riyadh city’, *Concurrency and Computation: Practice and Experience*, 34(6), p. e6748. doi:10.1002/cpe.6748.

Feedback:

This subject is well-researched and the methods chosen are correct. You can look at two or three different ways to do this. You may find very different results from Riyadh, it will be interesting analysis.