2 pages only + shiny app

1. Abstract: A one paragraph summary of what you set out to learn, and what you ended up finding. It should summarise the entire report.
2. Introduction: A discussion of what questions you are trying to answer.
3. Data set: Describe details about how the data set was collected (if known) and the variables in the data set.
4. Analysis: Describe how you used multiple regression to analyse the data set. Specifically, you should discuss how you carried out the steps in analysis discussed in class, i.e., exploration of data to find an initial reasonable model (variable selection), checking the model and any changes to the model based on your checking of the model (e.g. transformations).
5. Results: Provide inferences about any questions of interest that you identify and interpretation of parameter estimates where needed. Discuss the performance of your selected model.
6. Discussion and conclusion: Describe any limitations of your analysis and how they might be overcome in future research and provide brief conclusions about the results of your study.

Also must include model stability

Appendix can be used for graphs: nto in pages i.e. refer to appendix 1 when want to refer to a graph/assumption graphs

For shiny: dont need to check assumptions

Use drop down box to select options then to predict price and output the unncertaniity

Output the uncertainty, and prediction

For instance, user wants a land area of 200 sqm, so they pout that in, and they also want a waterfront → predict price and uncertainty

Marking criteria:

* Data description
* Appropriate model selection
* Assumption checking
* Results
* Discussion and conclusion
* Innovation→ made it on r
* Report formatting and structure
* Use of language (do all your sentences make sense?
* Spelling and grammar
* GitHub use

## S3 method for class 'lm'

predict(object, newdata, se.fit = FALSE, scale = NULL, df = Inf,

interval = c("none", "confidence", "prediction"),

level = 0.95, type = c("response", "terms"),

terms = NULL, na.action = na.pass,

pred.var = res.var/weights, weights = 1, ...)

Se.fit – predict.lm()

Model Stability model in report

Would have been nice to see a bit more EDA to show what the data looks like, e.g. is there good balance in the categorical predictors, some scatter plots showing the relationship between the outcome and some of the numeric predictors. [There was some of this later on in the assumption checking multiple regression section]

Extra innovation points for the interactive correlation heat map/scatter plot.

Why start with a simple regression model? You can probably just jump into the multiple regression. If you want to compare with a simple model, you can include that in your out of sample evaluation process.

You can still comment on whether it is likely that the independence assumption is met or where it might not be met, for example, in this data, properties on the same street aren't independent or perhaps even in the same suburb, there may be some spatial correlation that a linear regression model like this doesn't account for.

Good discussion of model stability.

I'm a little concerned about the lack of variation in the 10 fold cross validation boxplots, are you sure it was done correctly?

Do the coefficients in your selected model make sense to interpret individually?

Could check if there were any bargains or ridiculously over priced houses (i.e. looking at what the residuals mean in this context).