# Peer review sheet

MAFS6010Z, 2021 fall

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Group that you review: 19

	Confidence on your assessment (1-3)	Clarity and quality of writing (1-5)	Technical quality (1-5)	Overall rating (1-5)
Score	3	4	3	3

### **Summary:**

I believe your group did not reach the requirement of project 2. That's why I am grading 3 on your technical quality. However, you have elaborated a lot on the different models, which is a plus.

## Strengths:

Your group really did well on the writing part. Model details are well explained.

#### Weaknesses:

The technical quality is below average compare to the other groups. There are mistakes in the Ridge regression. On the other hand, all the other groups, even the one man group, have done six of the suggested models (OLS, elastic net, PLS, PCR, GLM, random forest, GBRT, neural networks). You are a four people group, more content should be expected.

## **Clarity and writing:**

The layout and formatting are professional. It looks like a real academic paper.

However, your group still have something more to improve. For example in figure 10, the image is a bit blurred, you should download the figure to your computer instead of screen capturing. Same problem in figure 11.

## **Technical quality:**

The technical quality is not very good.

First, it is not appropriate to count SGD as a model. Stochastic gradient decent is an optimization technique that is used in machine learning applications, not a model. You

can say you are using stochastic gradient decent on Neural network, or instead of least squares you use stochastic gradient decent to solve ridge regression.

On the other hand, elastic net is combining the penalties of ridge regression and lasso regression. If you split it into two parts, in my option, it looks like your group is trying to meet the quota of 6 models. One of the groups did six models and include ridge and lasso as a bonus.

Second, your attempt of lasso regression should have something wrong. The feature importance should not be all equal. In figure 5 and figure 11, it shows your lasso regression is having all the feature have the same feature importance. It is impossible. Maybe your penalty is too large such that all betas become 0, or there is other mistake on your code. Also, the time window of the analysis is not correct for all models.

Only four of the six models are correct in a four people group, so I ranked 3/5 to your group.