**Submit your assignment soon**

Even though your assignment is due on Jan 31, 2:59 AM EST, try to submit it 1 or 2 days early if you can. Submitting early gives you a better chance of getting the peer reviews you need in time.

In this course project, you will build a regression model using the deep learning Keras library, and then you will experiment with increasing the number of training epochs and changing number of hidden layers and you will see how changing these parameters impacts the performance of the model.

## Review criteria

This assignment will be marked by your peers and will be worth **20%** of your total grade. The breakdown will be:

Part A: 5 marks

Part B: 5 marks

Part C: 5 marks

Part D: 5 marks

## Step-By-Step Assignment Instructions

### 1. Assignment Topic:

In this project, you will build a regression model using the Keras library to model the same data about concrete compressive strength that we used in labs 3.

### 2. Concrete Data:

For your convenience, the data can be found here again: https://cocl.us/concrete_data. To recap, the predictors in the data of concrete strength include:

1. Cement
2. Blast Furnace Slag
3. Fly Ash
4. Water
5. Superplasticizer
6. Coarse Aggregate
7. Fine Aggregate

**3. Assignment Instructions:**

**Please check the My Submission tab for detailed assignment instructions.**

**4. How to submit:**

You will need to submit your code for each part in a Jupyter Notebook. Since each part builds on the previous one, you can submit the same notebook four times for grading. **Please make sure that you:**

1. **use Markdown to clearly label your code for each part,**

2. **properly comment your code so that your peer who is grading your work is able to understand your code easily,**

3. **include your comments and discussion of the difference in the mean of the mean squared errors among the different parts.**