# Final Project

*The purpose of this project is to use knowledge gained in this class to solve a predictive modeling problem.* This assignment provides you with an opportunity to apply regression or classification techniques on a real world problem in your field of interest.

## 

## Key Information

* **Type:** *Individual*
* **Weight:** 48%
* **Delivery:** Course website upload
* **Due Date:** April 02, 2019

## Expectations

You are expected to complete this assignment individually.

Respect for academic integrity is crucial to your success. Make sure you understand what constitutes acts of academic dishonesty in the page: [What is Academic Dishonesty?](http://mcmaster.ca/academicintegrity/students/whatis.html)

## Instructions

Find a data set that is suitable as a topic of a regression or classiffication analysis. Carry out a thorough analysis of your chosen data set using regression/classiffication analysis. Provide a clear and concise description of the results and state what conclusions can be drawn from your analysis.

**Note:** The last day of our course is dedicated to the presentations of final projects. Each student has 10 minutes to present her/his work (dataset, datacleaning, predictive methods, etc.). In order to keep the presentations short and effective, number of slides is limited to 5. The following is an example of what you can present in 5 slides,

* **Slide1:** Description of dataset you are using (head of dataset, Target variable, predictors).
* **Slide2:** Data cleaning-Preperation that are required.
* **Slide3:** Basic model training and cross validation (without hyperparameter tuning in this step).
* **Slide4:** Plots of learning curves and describtion of the over/under fitting
* **Slide5:** Hyperparameter tuning and improving basic model (with the insights from slide3 and 4).

## Submission

Please submit your

1. .py or .ipynb files to avenue before April 02, 2019
2. Printed codes in class, April 03, 2019

Please note that similar to presentation files, printed codes should be limited to 5 pages as well.

1. Presentation file to avenue before April 02, 2019