Spring 2023 **Lealand Morin**

University of Central Florida
College of Business

QMB 6912
Capstone Project in Business Analytics

Problem Set #1

Due Date: Sunday, 15 January 2023, at 11:59 PM.

Go to the course Webpage on Webcourses and find the file `ReadPaper.PDF` in the `Files` tab; download the document; read it carefully.

Now go to the course webpage on Webcourses and find the file `Akerlof1970.pdf` in the `Files` tab; download and read this document; then write a one-page summary of the paper by Akerlof, following the guidance provided in `ReadPaper.PDF`.

The paper by Akerloff includes several examples in which moral hazard and adverse selection may be at play. Write another one-page essay describing how this framework would apply to the resale prices of homes. Your commentary will also discuss the effect of information asymmetries on the intended use of a home as either a rental property or as a home for the owner. Also, provide a description of features of homes that you think could be important in determining their prices in each market, as well as the particular type of buyer who might go through with the purchase.

When preparing and submitting these one-page summaries, as well as later problem sets in this course, you will need to use your laptop computer to prepare and then to compile in LaTeX your work and to effect many of the calculations in later problem sets in R. To provide you a template, which makes preparation easier for you and grading easier for me, I have placed sample LaTeX code in the GitHub repository for the course: `QMB6912S23`, under my GitHub username `LeeMorinUCF`; you should pull this repository and use these files a framework within which to create the answers for this and later problem sets.

In general, your submission will include several files, such as the `.tex` files along with the `.pdf` file for this problem set. Each week, you will push the files to a folder on your GitHub repository. After you have invited me as a collaborator, I will be able to pull your submissions to my computer for grading.

In later problem sets, be sure to support your calculations with descriptions of what you were trying to do (for example, in comments in your R code as well as in the LaTeX explanations) because partial credit will be given.

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