Reading List and Guided Questions – Individual Checkpoint

Your name: **Tom Youngblood**

Your assigned tutorial topic: **ML Predictive Modeling of Covid-19 (LDA & QDA)**

Please write your answers to the following questions below each question (Q #.#) .

Question 1 – Developing a reading list

As you start learning about your assigned topic, you're expected to avail yourself of the course resources on your topic – the async material, the Crawley text, the Hastie text, the James text

Q 1.1: What resources in the course did you find regarding your topic? If referencing the async, please include where one could find the video/file you're referencing. If referencing one of the books, please provide name of the book and the page numbers.

The DU Async Video "Logistic Regression Example", from Week 5: Logistic Regression, will be highly useful as an introduction to the logistic regression methods my team will use in our project.

Q 1.2: Please list 5 resources available freely online that you think are helpful references for someone who is unfamiliar with your topic. It is okay if these resources do not use R, and it is okay if the resources contain no code at all. You may use academic journal articles or online books if they can be accessed easily. The key is that they need to be easily accessible and be informative about your topic.

1. **Statistics: An Introduction Using R - Chapter 10: Multiple Regression**
2. **The Elements of Statistical Learning - Chapter 4: Linear Methods for Classification**
3. **MASS documentation: The lda function**
4. **MASS documentation: The qda function**
5. **UC Business Analytics R PRogramming Guide: Linear and Quadratic Discriminant Analysis**

Question 2 – Thinking about applying your method to the data you find

The demonstration as part of your tutorial will be done using RStudio, so you will need to develop code to process your data and to conduct your topic analysis.

Q 2.1: Based on what you've read so far, what R package or packages contain functions relevant to your topic? Please list those packages/functions here.

- **MASS: lda function**
- **MASS: qda function**

- **ROCR: Useful in creation of ROC curves**
- **Tidyverse: basic data manipulation**

Q2.2: Please list at least one additional resource about your topic that includes an example of how to conduct it in R.

- **R-bloggers tutorial: LDA vs QDA in R**