**FIT5197: Rubric for Final Assessment**

**REGRESSION TASK**

Kaggle competition score for the regression task will be given based on the public and private leaderboard ranking (after being verified by us). Below are the marks with the corresponding model performance. **Please note that just because your score on the public leaderboard falls into the ranges, it does not mean that you will get the scores between these ranges as your scores will also be influenced by the private leaderboard and our verification on your model running on the full dataset, e.g., 4.4 on public and 4.9 on private will result in 4.75 as your final RMSE, which will give you a Credit grade of 62.5.**

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| **Grade level the student is working at** | **N** | **N** | **N with hurdle** | **P** | **C** | **D** | **HD (80)** | **HD (90)** | **HD**  **(100)** |
| Private (70%) and Public (30%) RMSE score for regression | No attempt | 10.5  -  5.6 | 5.6  -  5.2 | 5.2  -  4.8 | 4.8  -  4.6 | 4.6  -  4.2 | 4.2  -  3.8 | 3.8  -  Best from Kaggle | Best from Kaggle |
| % Mark | 0 | 0-40 | 40-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100 |

Mark will be converted using a linear scheme, e.g., if you get 4.7 as your final RMSE from both the public and the private leaderboard (and verified by us), your percentage of mark would be 65/100.

**CLASSIFICATION TASK**

Kaggle competition score for the classification task will also be given based on the public private leaderboard ranking (after being verified by us). Below are the marks with the corresponding model performance. **Please note that just because your score on the public leaderboard falls into the ranges, it does not mean that you will get the scores between these ranges as your scores will also be influenced by the private leaderboard and our verification on your model running on the full dataset.**

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| **Grade level the student is working at** | **N** | **N** | **N with hurdle** | **P** | **C** | **D** | **HD (80)** | **HD (90)** | **HD**  **(100)** |
| Private (70%) and Public (30%) macro-f1 score for classification | No attempt | 0.25  - 0.35 | 0.35 - 0.37 | 0.37 - 0.39 | 0.39 - 0.45 | 0.45 - 0.47 | 0.47 - 0.50 | 0.50 - Best from Kaggle | Best from Kaggle |
| % Mark | 0 | 0-40 | 40-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100 |

Mark will be converted using a linear scheme, e.g., if you get 0.460 as your final macro-f1 from both the public and the private leaderboard (and verified by us), your percentage of mark would be 75/100.

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| **The documentation of model building is critical to demonstrate your understanding. It doesn’t need to be long, but you should sufficiently interpret what you have done. This is similar to the idea of providing working out for math questions. You also don’t need to submit code for all the models you considered, only the best model.** | | |
|  | The worst case | The best case |
| Predictor/Feature analysis | * No or limited explanation of the predictor variables to assess if they are useful for prediction of the target variable | * The predictor analysis process and reasoning behind the predictor variables selected for classification is well explained and justified by empirical analysis. * The explanation is easy to read for both machine learning experts and those who do not have the machine learning knowledge. |
| Development of the predictor (i.e. regression or classification system) | * No, or limited explanation of how the regressor/classifier was developed with no evidence or proper justification. | * Critically assess the performance (RMSE for regression and f1 for classification) of the models with comprehensive analysis. * The discussion of experiments and comparison of models leading to the final model is logical with an appropriate level of detail. |
| Code and Readability | * The R code is incomplete/does not work and the code readability is poor. * There is no clear structure in the description of the thought process involved in building the model and the readability of the description is poor. | * R code runs properly, is logically structured and easy to read. * Concise but precise code comments clearly explain how the code is intended to work. * The redundant or unnecessary code is excluded from the final submission. * The description of the thought process in reaching the final model is well structured and highly readable. |