# PROJECT REPORT
# Submission date: Apr_2021
# 001044060: Junayid Kabir Chowdhury

## Supervisor Feedback

### Overall assessment

The project is titled "Detecting Online abuse on Twitter using Machine learning and Lexicon approaches".

Good list of relevant literatures reviewed as part of the report. It shows a good understanding of the problem domain as well as the algorithms used. Overall, three approaches are used and the pros and cons of each are explored and decision justifications are provided.

The results on the original datasets and SVM prototype were used resulting in high accuracy but low F1-score, something that could be attributable to the imbalanced nature of the data. The work then reduces the overall training data and on route to the a more balanced dataset (using all the abusive tweets, along with large, yet smaller than complete records of non-abusive tweets), where the results are improved. Relevant hyperparameters are tuned as part of the experiments. AFINN lexicon and TFIDT are also explored and their results examined. A survey is also conducted evaluating the methods against human evaluation on a number of tweets.

Overall, an excellent project with scope for more improvements, including adjusting the input features for SVM (TFIDF-SVM) and by extension, extra pre-processing steps.

**Have you held a demonstration or viva for this project?** ✓
**Comments on the viva/demonstration**
Demo done, all questions answered and the repsones show a clear understanding of the topic.

**Has the report met presentation criteria?** ✓
The report follows the expected standard. References are used in an appropriate ways, however there might be instances which could be improved (e.g. "almost 6000 tweets a second Smith (2021)." instead of "almost 6000 tweets a second (Smith, 2021)." or "Pupale (2019) Defines" instead of "Pupale (2019) defines", etc).
**Report on Authenticity**
TurnItIn Percentage Match =15%
No issues.

## Second Marker Feedback

### Overall assessment

Overall, this is excellent work. The report is written very well which has a clear structure and provides a comprehensive literature review. Three models, SVM, TFIDF and AFINN are implemented and results are provided. A survey testing is conducted to collect human processed data labels on tweets to measure the success of the models. I would

suggest more details of hyperparameters tuning and references for models such as SVM should be provided.

**Have you held a demonstration or viva for this project?** ✓
**Comments on the viva/demonstration**
The students answered all the questions and understood the project well.

**Has the report met presentation criteria?** ✓
see comments above.