**ABSTRACT**

Natural Language Processing is one part of Artificial Intelligence and Machine Learning to make an understanding of the interactions between computers and human (natural) languages. Sentiment analysis is one part of Natural Language Processing, that often used to analyze words based on the patterns of people in writing to find positive, negative, or neutral sentiments. Sentiment analysis is useful for knowing how users like something or not. Zomato is an application for rating restaurants. The rating has a review of the restaurant which can be used for sentiment analysis. Based on this, writers want to discuss the sentiment of the review to be predicted. The method used for preprocessing the review is to make all words lowercase, tokenization, remove numbers and punctuation, stop words, and lemmatization. Then after that, we create word to vector with the term frequency-inverse document frequency (TF-IDF).

The data that we process are 150,000 reviews. After that make positive with reviews that have a rating of 3 and above, negative with reviews that have a rating of 3 and below, and neutral who have a rating of 3. The author uses Split Test, 80% Data Training and 20% Data Testing. The metrics used to determine random forest classifiers are precision, recall, and accuracy. The accuracy of this research is 92%. The precision of positive, negative, and neutral sentiment are 92%, 93%, 96%. The recall of positive, negative, and neutral sentiment are 99%, 89%, 73%. Average precision and recall are 93% and 87%. The 10 words that affect the results are: “bad”, “good”, “average”, “best”, “place”, “love”, “order”, “food”, “try”, and “nice”.