1. INTRODUCTION

A social media application is a computer program that is made specifically to do the tasks of its users in interacting online. In addition to interacting, social applications are also used as entertainment media to have fun and relieve the boredom of users. One of the social media applications is Tiktok with its feature of making short videos between users which makes the Tiktok application popular. Currently, the number of active users of the TikTok application is 65.2 million downloads with 8.5 being users from Indonesia [1]. The TikTok application can be downloaded on Google Playstore for Android users, Google PlayStore provides a review feature to rate the services of an application, movie, ebook, and others. With the review feature, a very large amount of text data is available. The collection of texts is a great resource-rich in opinions, opinions, and sentiments. A large number of reviews makes it difficult to process sentiment analysis. Therefore we need a system that can perform sentiment analysis based on aspects of the review.

Sentiment analysis attracts interest from both research and industry. Aspect-based sentiment analysis is fundamental which aims to infer the polarity of a sentence's sentiment concerning a given aspect. For example, "The application is good, it can make money from advertisements, but many videos are bad." This opinion can be seen that about business is positive while content is negative. In this case, there are several aspects in a comment, aspect-based sentiment analysis is commonly called Aspect-based sentiment analysis (ABSA) [2]

In his research [3] proposed a deep learning model for Aspect-based Sentiment Analysis (ABSA). The study showed good results in the aspect classification using 5,387 data. From the comparison of deep learning methods, the researchers found that the accuracy values in each model were not too different. Attention BiLSTM got the lowest score with an accuracy value of 0.896, and the LSTM model had the best result with an accuracy score of 0.926.In his research.

Word embedding is used to get vector values in the deep learning method from Long Short-Term Memory (LSTM) for sentiment classification. The results showed that the combination of the PLSA + TF ICF 100% + Semantic Similarity method was superior, namely 0.840 in the categorization of the five hotel aspects, and the Word Embedding + LSTM method outperformed the sentiment classification at a value of 0.946 [4]

The Bidirectional GRU and Word Embedding methods are used in sentiment analysis because they have the advantage of being able to include the semantic meaning of words in a text. There are various types of word insertion models, such as the Glove, which focuses on words that appear together. Deep Learning Algorithm requires a scalar or matrix value to process the words. Words are converted to vectors while preserving semantic context. This representation is known as Word Embedding [5].

In the aspect-based sentiment analysis research using LSTM and fuzzy logic, the proposed fuzzy logic and LSTM models were tested on ACPR, AVGR, and CPAP data sets, and customer reviews grouped by geographic location. The proposed model is tested separately according to each country. The proposed model for aspect-based sentiment analysis adopts the ClausIE feature to divide long sentences into small ones, the result is that word embedding is suitable for use for aspect-based analysis. three publicly available data sets with 96.93% accuracy on ACPR, 83.82% accuracy on AVGR, and 90.92% accuracy on the CRAP data set [6].

In J. Wang et all's research in 2018, the Word&Clause-Level ATT model impressively outperformed the LSTM to get the highest accuracy of 0.809 in the restaurant data set and 0.816 in the laptop data set, the researcher proposes an attention-based LSTM that explores the potential aspect correlation and sentiment polarity in classification of sentiment aspects to get better accuracy [7]. This study contributes to the Tiktok application, which is very popular at this time, because of the interest of many users, so there is a data collection for Aspect-Based Sentiment analysis, the author will use the deep learning method Recurrent Neural Network with the Long Short-Term Memory (RNN – LSTM) model and the addition of word embedding BERT in sentiment analysis. The expected result is the performance of sentiment classification accuracy in every aspect consisting of Features, Business, and Content.