1.   Introduction

In this digital era, industrial development is increasingly advanced and rapid, for example, in the movie and technology industry [1]. Based on data from IMDb, the average movie production in 2005 reached 4,584 and increased to 9,387 in 2015 [1]. With the increasingly sophisticated technology, watching movies can be easier through online streaming services such as Netflix that can be enjoyed anywhere and anytime [2]. Netflix is the world's largest online streaming service provider and has more than 148 million subscribers [3]. The more movies produced, the more different tastes of each user. Therefore, users often use social media, such as Twitter, to post reviews about what movies they have watched and what movies they like or dislike [4]. With the spread of many reviews on Twitter, users are often confused about finding the next movie they will watch based on the movie they have watched. One way to get what movies we might like is with a recommendation system.

The recommendation system is a method that allows users to find items that are suitable for that user [5]. Generally, there are four recommendation systems types: Collaborative Filtering, Content-Based, Knowledge-Based, and Hybrid-Based [6]. Ifada et al. [7], revealed that the Collaborative Filtering method could be superior to Hybrid-Based. Weighted Slope One is an algorithm of Collaborative Filtering based on linear regression and uses deviation to calculate the predicted rating of the item [6]. The Weighted Slope One algorithm has several advantages, such as easy maintenance, efficient query time, and accuracy [8].

Hu et al. [9], conducted research on Weighted Slope One using similarity, based on ratings and attributes with the tourist attractions dataset obtained from 'www.ilvping.com.' This study compares the best MAE values from several methods such as Weighted Slope One with the best MAE 0.779, Item-Similarity Slope One with the best MAE 0.767, and Item-Based Collaborative Filtering with the best MAE 0.782. Based on the results obtained, they concluded that the Item-Similarity Slope One matched the tourist attractions dataset.

Wang et al. [6], also conducted research on Weighted Slope One with the Movielens dataset. This study compares the MAE results of several methods such as User-Based Collaborative Filtering with the best MAE of 0.771, Weighted Slope One with the best MAE of 0.739, and Improved Weighted Slope One with the best MAE of 0.729. They concluded that their Improved Weighted Slope One algorithm was better than other methods.

Based on several previous studies that have been mentioned [6], [9], and as far as the author knows, no research has made a Netflix movie recommendation system using Collaborative Filtering with Weighted Slope One algorithm, whose dataset was obtained from Twitter. Tweet data obtained generally contains reviews in the form of text. Then tweet data is converted into numbers or ratings (0-5) using the Polarity method. Polarity measures the positivity, negativity, and neutrality of a tweet [10].

The purpose of this study was to implement a recommendation system using Collaborative Filtering with the Weighted Slope One algorithm, which was tested with the Netflix movie dataset, and to find out how accurate the recommendation system was using a text dataset obtained from Twitter.

The organizational structure of this research paper is as follows: section 2 describes the methods used in this research, section 3 describes the results and discussion, and section 4 contains conclusions.