

Abstract

Music recommender system becomes one of emerging thing nowadays because the huge amount of music and users need new musics that match to their tastes in a short time. Music retrieval is research area about recommender that focusing on information retrieval of music.

Music recommender system usually used these techniques: content-based or collaborative filtering. These techniques have different characteristic that covering each weaknesses and strengthness. But for the music's case, collaborative filtering technique is more promising than content-based because its strengthness to interact with users. In collaborative filtering, there are two approaches: user-based and item-based. *User-based* focus on finding relation for each users and item-based focus on finding relation for each items.

The main focus in this Final Project is to compare collaborative filtering recommender system performance by using differences similiarity algorithms in item-based approach. These algorithms are pearson, cosine, and adjusted cosine. MAE and precision is used to evaluate the performance's system. These experiments result that cosine has lowest MAE compared to pearson and adjusted cosine, but MAE value will increase if total rating per item is increased. It's different with pearson and adjusted cosine, they have high value of MAE compared to cosine but their MAE will decrease if total rating per item is increased. For the precision value, adjusted cosine has highest value for experiment with users who input rating value to dataset and cosine also pearson have highest value for experiment with users who don't input rating value.

Keywords: *Music retrieval, recommender system, collaborative filtering, item-based*