

CHAPTER I

INTRODUCTION

1.1. Background

YouTube is an American video sharing site which is built in February 2005. On YouTube, users can upload, watch, or share videos. Registered users can upload their videos, while unregistered users only can watch the videos. Until 2016, YouTube has been having more than one billion registered users. With that number of users, of course the number of videos which spreads in Youtube more than that number.

In watching the videos, of course every user has their own criteria. There are users who open YouTube site to watch some specific category of videos like music, sports, education, and etc. There are users who open YouTube site to watch some videos which shared by specific users. Other users may open the YouTube site because of many specific reasons.

With so many categories and active registered users on YouTube, then there will be many possibilities that can indicate that a video can be recommended for the user or not. Suppose there are three categories on YouTube and ten active registered users, it will generate at least 60 chances of whether a video is liked or disliked by the user (3 categories X 10 active registered users X 2 class). Meanwhile, there are many categories and many active registered users. Based on fact above, a video recommender system is needed to help the users to choose video which is has an attribute like the user's criteria.

There are many ways to build video recommender system, one of them is by using Bayesian Theorem especially Naive Bayes Algorithm. The Naive Bayes algorithm is an algorithm that works based on the principle of probability. By using the Naive Bayes algorithm, the system only needs a few of sample data. System only need video data that has been seen and some of video data that has never been as a sample data which is usually called as training data while the data will be collected by using YouTube API.

1.2. Scope

There are the scope of this project :

1. System can show all videos which have been watched by the user.
2. System gives a recommendation based on video which has been watched and never watched by the user.
3. System gives a recommendation of a video which is perhaps has an attribut like the user's criteria and that video never watched by the user.
4. If the user doesn't have a video which has been watched, system will give popular video as a recommendation.

1.3. Objective

The purpose of this final project is to build a system which can give a recommendation of the videos which is having an attribute like most user criteria by using the Naive Bayes algorithm and YouTube API.