

CHAPTER III

RESEARCH METHODOLOGY

The steps to complete this project are :

3.1. Collect References

The first step in this final project is search some references from many journals, books, and researches which is related with the problem in this project. There are three main problem in this project, there are about recommender system, how Naive Bayes algorithm works, and how to use YouTube API to get some video data from YouTube site.

3.2. Analysis

This step is to analyze YouTube site when play a video. The aim in this step is to determine the attribute of video that can be used as a common standard for measuring that the video has attributes like the user's criteria such as category, duration, YouTube account (channel), view count, and date upload. Then, explore about how to use YouTube API and how the Naive Bayes algorithm works.

3.3. Design The Program

The program is designed based on the data which was collected. Program design consist of input from the user which is shown in the video data set that has been seen. The data set is obtained from each video which is clicked by the user which then is saved in a text file. Then, the input will be processed with the Naive Bayes algorithm. The results of the processing can called as "recommended video" which will be shown in the interface which appears in the browser. The interface will display the videos which are obtained by using features from YouTube API.

3.4. Implementation and Testing

In this step, the concepts that have been learned and the design that has been planned will be implemented in PHP Language. The data which get from YouTube site by using YouTube API features will be processed with Naive Bayes algorithm. After the code of the program finished, the program needs to be tested.

There are two testing that needs to be done. The first testing is testing to fix the program from the error. The second testing is to compare the result of the program with the recommendation from YouTube manually. The result of the second testing is to find out the best combination of dataset of video which has been seen to get the best recommendation result.

3.5. Write The Report

The last step is write a project report. The report contains anything that can be used as an attribute, the process to get the data of videos by using YouTube API, the process to get recommendation of videos which will be shown to user by using Naive Bayes algorithm. The result is a set of videos which is predicted has attributes like the user's criteria.