CHAPTER 4
ANALYSIS AND DESIGN

4.1 Analysis

This program will be read the keyword or sentences that inputted from user and inserted into an Array data structure. But before the keyword is inserting to an Array, the keywords must be splitted first using the string-splitting function on the PHP itself. After the keyword splitted into some words, then the program will do the matching process with the keyword or pattern that contained in AIML which is also converted into an Array form. By using the pattern-matching algorithm, the array words from the user keyword will be matched with the database array on the program.

After the all of the user keyword is matched with the database keyword, the next process is the answer-searching process based on the result of the pattern-matching process. This function will be searching an answer that related to the keyword on the Linked List data structure. After the answer data has been found on Linked List, as the final step the program will be displaying the answers result.
4.2 Design

The flow chart above explained the data flow process on the ChatBot program. This ChatBot program will requested data from user first before execute the data. User must to inserting the keyword or sentences that contains with the keywords (ex. “ilmu komputer” or “fakultas ilmu komputer”) on the text fields.

After the keywords or sentence has been submitted with the user, string data on the user will be splitted into the words and placed into an Array data structures. The program will be making a comparation with an array from user keyword and an array from AIML pattern. If found matches between two data from the arrays, then the program will be returned the matched keyword to the result array. The result array will be matches again with the answers data on the LinkedList. And finally the chatbot will be outputing the right answers for the user.