CHAPTER 4
ANALYSIS AND DESIGN

4.1 Input
The input in the form of a few sentences
Example: budi memasak

4.2 Omit punctuation and spacing
Omit punctuation and spaces contained in the sentence as well as the changing capital letters into small letters.
Example: budimemasak

4.3 Form the hash value
Change the sentences into a hash value by using the ASCII
In accordance with the number of letters in a sentence
Example: $98*3^{(11-1)} + 117*3^{(11-2)} + 100*3^{(11-3)} + 105*3^{(11-4)} + 109*3^{(11-5)} + 101*3^{(11-6)}$
$+ 109*3^{(11-7)} + 97*3^{(11-8)} + 115*3^{(11-9)} + 97*3^{(11-10)} + 107*3^{(11-11)}$

4.4 Choose centroid
Forming a random value from a hash value that has developed for the centroid (a comparison)
Example: budi memancing (81831061)

4.5 Compare the value of centroid proximity value
Every hash value in compare with the centroid has formed with a limit value of proximity
Example: budimemasak (909233); 86723789-75612679

4.6 Clustering
Classify each hash value comparisons with the proximity corresponds to number of grouping.
Example: 3 grouping
C1=75612679-79316382
C2=79316382-83020085
Illustration 4.1: Flow Chart

1. **Start**
   - Input phrase in textual

2. **Process**
   - Omit punctuation and spacing using ASCII
   - Change capital letters into small letters using ASCII
   - The formation of the hash value of every sentence

3. **Result**
   - Grouping the hash value against the value of the centroid proximity is established
   - Determine the value of the proximity of the centroid
   - Take a centroid value of the hash value that has been formed at random

4. **End**