

CHAPTER IV ANALYSIS AND DESIGN

4.1. Analysis

4.1.1. Use Case Diagram

Use case diagram contains information about system feature and user privileges. System will only have one user group. User will be able to select fingerprint image and process it. After that, user can choose to identify or register the fingerprint.

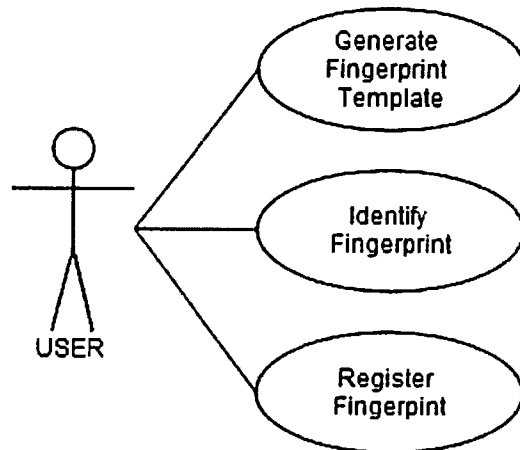


Figure 4.1. Use Case Diagram

4.1.2. Flowchart

Flowchart shows the process flow when system run. The process input is fingerprint image. The process divided into three major processes; pre-processing, feature extraction, and hashing. The output will be fingerprint template (minutia hash).

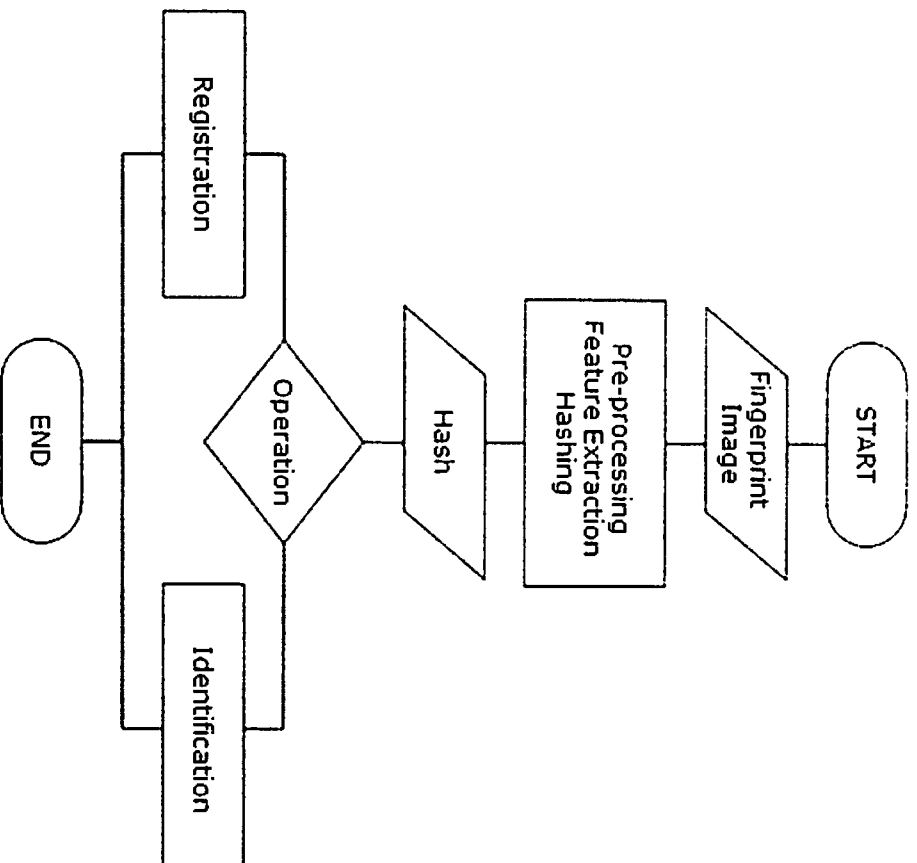


Figure 4.2. Flowchart

4.2. Design

4.2.1. Graphical User Interface

Graphical user interface contains mock ups of system. There are four user interface; launcher, template generator, registration form, and identification.

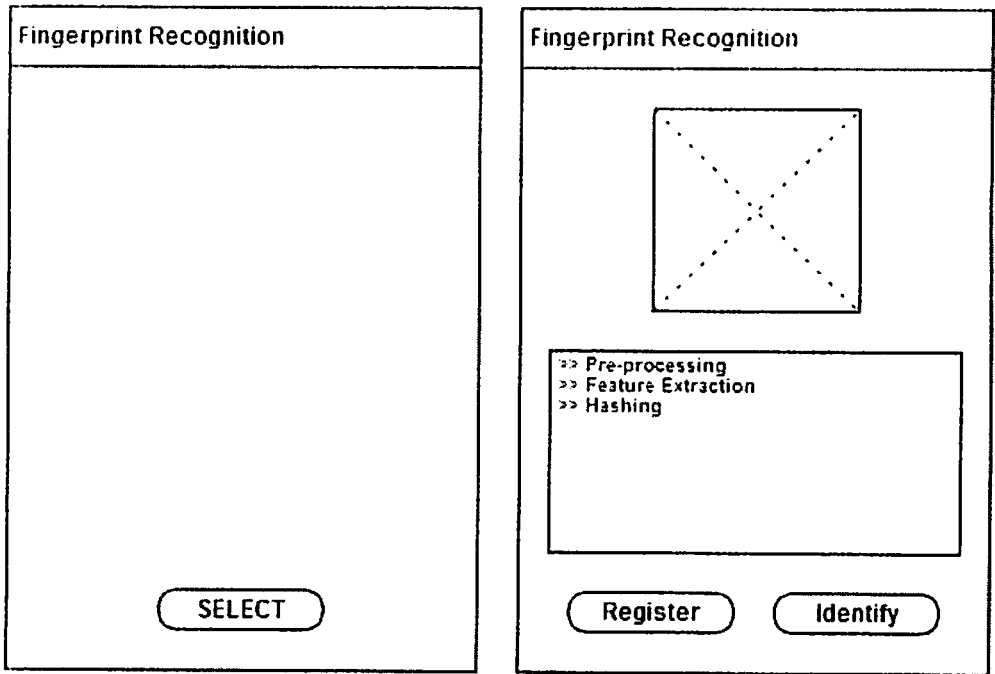


Figure 4.3. Graphical User Interface designs

4.2.2. Class Diagram

System will be developed on Java programming language, so it is object oriented. Below are the classes which will be coded on Java.



Figure 4.4. Class Diagram

