CHAPTER I
INTRODUCTION

1.1 Background

Now these developments in the world of photography very rapidly, the image taken using a camera can be edited as desired, from rgb(color) images can be converted to grayscale image or a binary image. Not only the process two is used to edit the image, but there are still many processes that are combined in figure just on this project uses two processes part of image processing.

Implementation of grayscale thresholding and is able to display various images processing results of grayscale and binarization images, in additon to the binary image can test using the color channel red, green and blue. Implementation process grayscale thresholding and this is very interesting, can see the result of the difference image of one with the other, besides this project using a mix of colors so it can know the drawing results combined with rgb color.

In this project the author researched the comparison image with grayscale thresholding and a process that uses a color channel red, green and blue. The results are compared to the results of grayscale, grayscale two-bits and four-bits. A comparison of the process seen from the value image stored on the txt file, to tell the difference in image one with another. Comparison of image thresholding process is also done by changing an image into a binary value used was black and his color channel red of green or blue, then from the results of the comparison can be seen on the image output and the value of the image.

1.2 Scope

On the creation of this project using the java programming language, as well as making an application implementation results of grayscale and thresholding. This project provides information on grayscale, thresholding and refined process image into 2 bits and 4 bits of the processed results compared either in image output and value on every image. So that the results of comparisons can be distinguished, both of these processes, which provided the material for the project implementation of grayscale and thresholding.

1.3 Objective

This project is based on making with some of the objectives are :

1. Compare the results of grayscale made regular, 2 bit and 4 bits, and notice the difference in the value image convert to 2 bit and 4 bit.
2. Compare the results to convert rgb images to monochrome images, and monochrome which uses three channel color that is red, green, and blue. Each of the convert channel to the binary image.
3. Provide information results comparison image two-bits and four-bits.