## CHAPTER I INTRODUCTION

## 1.1 Background

A song is contains of wide range of tones. Every tones there are high and some are low. The tones sometimes wrote in paper shaped number notation. The number notation is symbol of the tones from do, re, mi, fa, sol, la, and si which number shaped. Number 1 is symbol of tone Do, number 2 is symbol of tone re, number 3 is symbol of tone mi, number 4 is symbol of tone fa, number 5 is symbol of tone sol, number 6 is symbol of tone la, number 7 is symbol of tone si.

The number notations is the most simple symbol of tones. Many people can read that number but don't know how sounds of that numbers. This project is purpose helping people to know how sounds of number notations. So people can know how is sound of the song by hearing that number notations sounds.

## 1.2 Scope

This project will be created with the Java language programming, using the *PCINNS* algorithm. The project can reading the pixel of image and convert to the sound of number notation image using wav format sound. And the Number Handwriting Reader is using PCINNS algorithm too. It will reading users handwriting number by drawing in the space that has been provided in this program. After this program read the pixel of image, it will voiced in accordance with the number that has written by user and accordance with symbol of number notation.

## 1.3 Objective

The project was created with the Java Language Programming. The algorithm used PCINNS algorithm as pixel reader and image matching algorithm. The purpose of this application is.

- 1. Able to reading pixel of image.
- 2. Counting the number of pixel in every row or column.
- 3. Converting the number of pixel to sound.
- 4. Able to play a song which have the form number notation.
- 5. Able to reading handwriting number from number 1 until number 7 which are number notation.