

# CHAPTER I

## INTRODUCTION

### A. Background

Students need education facilities to support their academic activities and efficiently, using an advanced technology that can process information. The precision, accuracy, and speed is something that is needed for students to manage their studies. Therefore, this needs to be balanced with the availability of increasingly innovative technology.

Android technology has recorded as the fastest growing operating system in the mobile world. Many mobile users have switched to android recently. Indirectly, almost all students are smartphone users with android operating system. Therefore, the authors chose Android as the subject of this study. This android smartphone will allow students to obtain an application, by downloading it for mostly free. In addition, this application can also be easily removed or deleted.

In reality, students need a digital assistant application that can help them plan courses, keep track of class or exam schedules, field course, course value store, and print the value of the results of the study. Therefore, students need an alternative media, which is an android application that can be used. It is considered more effective and efficient than the use of the application manually. For example you can save time,

materials, compare to the usage of paper. Based on this background, the researchers raised the title "Student Digital Assistant using Android Platform."

### **B. Research Problem**

The formulation of the problem based on the background is "How to build and apply the Student Digital Assistant using the Android platform on Informatics Engineering student of Universitas Muhammadiyah Surakarta?"

### **C. Boundary Problem**

To avoid any deviation or widening of the main problems in the preparation of this study, the researchers gave the extent of the problem, namely:

1. Applications built an application to handle student lectures. So that the application is designed specifically for students personal application, with functions:
  - a. Saving subjects of lecturing which are or have been taken in each semester.
  - b. Storing of saving class schedule and exam schedule.
  - c. Keep records coursework deadlines are equipped with record collection task.

- d. Inputting, storing, and printing the courses that have been taken along with the value of the results of the study.
2. This application is used by students; the data source used is the data classes Informatics Engineering Department Universitas Muhammadiyah Surakarta.

#### **D. Research Objective**

The purpose of this study is to develop and apply the Student Digital Assistant using the Android platform on a student majoring in Informatics Engineering student University of Muhammadiyah Surakarta.

#### **E. Research Benefits**

The benefits derived from this study are:

1. For students
  - a. Student Application Digital Assistant facilitate students to plan their studies, effectively and efficient.
  - b. As one of the alternative media that is fast, precise and accurate in keeping records and important documents digitally.
2. For researcher

This study has great benefits for the researcher is able to apply the theory of knowledge during college, specifically researchers can build applications using the Java programming language primarily.

## **F. Writing Systematics**

Systematic writing is made to facilitate the preparation of this paper, it can determine a good systematic writing. Systematic writing of this study are as follows:

### **CHAPTER I INTRODUCTION**

Introduction chapter describes background of the study, problem statement, limitation of the study, objective of the study, and writing systematical.

### **CHAPTER II OBSERVATION**

Chapter II contains theories that used in research, design, and manufacturing system.

### **CHAPTER III RESEARCH METHOD**

Chapter III analysis point of research object, all problem, and system design in general or specific.

### **CHAPTER IV RESULTS AND DISCUSSION**

Chapter IV exposes conclusion of the stage research result, starting from design, analysis, testing, and implementation result.

### **CHAPTER V CONCLUSSION AND FURTHER WORD**

Chapter V describes the conclusion of research and suggestion for considering in the future research.