

CHAPTER 1.

INTRODUCTION

1.1 Background

Technology is developing rapidly in this digital era. Technology helps people to increase their productivity in many ways. It has been implemented into a software that has a huge impact to community. The most popular technology developed in Indonesia is based on mobile application. A smartphone become more popular in Indonesia is a good target to develop fast in right pace. Smartphone has been proven that help people to be more productive such as send an email, digital banking, purchasing online product, manage activities schedule, etc.

Internet is one the most important part in people's life in this era, especially Indonesia. Indonesia as developed country has connected into internet more than 50% from 262 million people throughout 2017 based on *Asosiasi Penyelenggara Jasa Internet Indonesia* (APJII). Which means, connection between smartphone and internet will be a powerful tool increasing productivity.

Statistic by "We Are Social Singapore" a global agency show that the first rank mobile operating system is android. Android hold on 77% to do web requests, iOS hold on 18.9% to do web requests, and 4.1% from another mobile operating system. This means that Android mobile operating system is still the most well-known in the community.

Commonly, each business has their technology to develop their business process. Its same as PT. Enseval Putera Megatrading does. This company using the latest technology to improve the important activities needed to bolster the business process. Furthermore, mobile application is one thing that is focusing on this company to expand their business wider range of customers. Enseval Mobile Order System (EMOS) is one of the real products of Enseval which customer could buy the products on their smartphone anywhere and anytime. This is one of mobile application that focus on external purposes.

One of external purposes to expand Enseval's business has been fulfilled. The other hand, productivity in internal sight hasn't been developed maximal. Enseval is enthusiastic in developing innovation. Innovation event is an important part that has been developed to let the company grow faster and could adapt with any changing

environment. It's been developed since the idea to give an opportunity to employees deliver their idea that could help company's growth. Enseval realized that innovation event will give the idea of next business development based on Enseval vision and mission.

Creating an event in specified time range is one action Enseval does to improve innovation through their business. An event has several projects that assigned by a presenter to present their idea or important information to the other employee. Audience in this event could give a feedback to the presenter and give a poll. Usually, feedback from audiences just talked verbally not in write and polling's taken from audience is manual based by paper to give performance score. Frequently, to examine the audience about the project to get better about the event is by doing a mini-quiz paper based. All of it will be collected and recorded manually into the system. So, all of the data recorded will be an evaluation to the presenter and help them to improve the idea become a greater impact to the company.

1.2 Problem Identification

Problem identification to be discussed in this thesis are:

1. How the application will store and record all data about detail project and feedback from audience?
2. How to develop an application that easy to use whenever and wherever to manage questionnaire?
3. How the application behaves to manage all of data for creating reporting event's result?
4. How to increase interaction between user and application that user?
5. How to simplify the web-based application to be more interactive to the user?

1.3 Scope

Application will be created as mobile application which helps company to ease manages all event system on progress. This mobile application is based on on-progress website. Mobile application makes user simplify things to do anywhere and anytime where event is on progress.

Application scope for developing mobile application included:

1. This application will be created on Android device.

2. This mobile application developed using software Android Studio.
3. Minimum Android API level 17 and more.
4. Functionality of this mobile application is based on website.
5. Database System used together mobile and website.
6. Connecting database to android using Web API.
7. User could manage project (see, give feedback, poll a project, see photo contest). which the data is connected to company's database.
8. Admin has ability to see polling result by its category.

1.4 Aims and Benefits

1.4.1 Aims

This application has aim to:

1. Creating interactive mobile application for user to use.
2. Speed up the process for record important data such as: feedback and polling.
3. Make user easier to look at detail current project.
4. Reporting results will be displayed and easily evaluated.
5. Employee's assessment recorded faster.

1.4.2 Benefits

Benefits of this application are:

1. Facilitate for user to interact easier with mobile application.
2. Make reporting process is easier than before by digitalizing polling by user.
3. Manage the important data to central database is easier.

1.5 Research Methodology

1.5.1 Data Requirement Methodology

The methods that used to gathering theory, information, and needed data as theoretical basis are doing research literature review, interviewing and discussing related people to develop an application, do an observation or analysis on interview results, and finding comparison of similar application.

1.5.2 Application Development

Research method that is used for creating mobile application in PT. Enseval Putera Megatrading using spiral model that introduced by Pressman have several concepts to describe. There are 4 main steps to describe about spiral model: communication, modelling, construction, deployment. These steps will be described in detail belows.

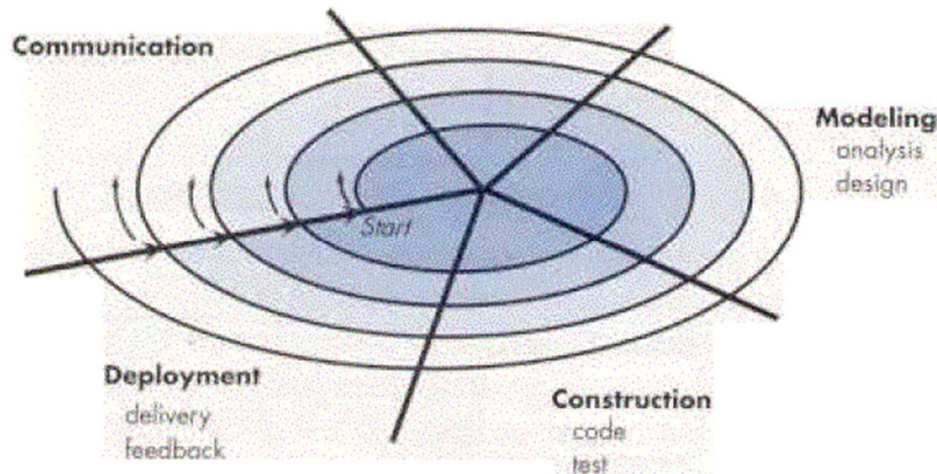


Figure 1.1 Spiral Model

(Source: Software Engineering, Pressman & Maxim, 2015, p.47)

1. Communication

The first step to require all of user's requirement system. By doing an interview is an example to require user's requirement. Communication will be the most important for the first step to develop a program / application. The result will be implemented into the next step.

2. Modeling

This step explains all things about analysis and design. Analysis the idea or information that has been gathered in communication step, considering things from risk to determine alternative better solution. Design the basic idea to aim the purpose of the application by designing UML or prototype.

3. Construction

This step is describing all things that related to implementation of modeling step. It contains code and test. Code in certain program language to create the

application work well based on the model before. Test the code to make sure the code is working properly without error or minimalizing error occurrence.

4. Deployment

This step will be executed after construction step. It contains delivery and feedback. Delivery means that the application that has been modeled and constructed before is deliver to the user. Feedback will be given by user to help future development for better application/program.

Spiral model is working in cyclic process. Each cyclic spiral model process will be increased by time which means the process is growing greater than before.

1.6 Structures

Structures of this thesis will be explained below:

CHAPTER 1: INTRODUCTION

This chapter provide brief explanation based on the background of the company's problem and how the author overcome due to the problem. Introduction also contains identification problem, scope of research, aims and benefits, and research method.

CHAPTER 2: LITERATURE REVIEW

This chapter describing all of theories foundation that related to the thesis topic and as a base to support current research.

CHAPTER 3: GENERAL DESCRIPTION

This chapter give a general information about company's background, current condition of a company, problem that has been faced, and giving a solution to the problem.

CHAPTER 4: RESULTS AND DISCUSSION

This chapter contains results of comprehensive planning system start with analyzing requirement system, comprehensive UML diagram, storyboard of an application, and an implementation.

CHAPTER 5: CONCLUSION AND RECOMMENDATION

This chapter contains a conclusion, recommendation, and discussion from the research which has been conducted. So, the recommendation will be a future improvement solution to the problem.