CHAPTER I

INTRODUCTION

1.1 Project Background

Indonesia is an archipelagic country located between the confluence of four tectonic plates, namely the Asian continental plate, the Australian continental plate, the Indian Ocean plate, and the Pacific Ocean plate. Indonesia also has volcanic arc that extends from the islands of Sumatra, Java, Nusa Tenggara, Sulawesi, the sides of which are old volcanic mountains and lowlands which are partly dominated by swamps. These conditions have the potential and are prone to disasters such as volcanic eruptions, earthquakes, tsunamis, floods and landslides. Data shows that Indonesia is one of the countries that has the highest seismicity rate in the world, more than 10 times the level of seismicity in the United States (Arnold, 1986).

In Indonesia, every time a natural disaster occurs, it will be spread through television, social media and other platforms that explain the details of the disaster, starting from the location of the natural disaster, the development of the number of victims, and the assistance needed by the victims. Sometimes the news that is spread is not always accurate, especially the news that is spread through social media where they only repost the news they see without confirming the truth.

1.2 Problem Statement

In Indonesia, there is an institution called the disaster management agency which immediately goes to the location of natural disaster points to help save victims and provide their basic needs. Assistance from this institution comes from the government budget and for the community who wants to provide assistance in the form of materials and basic needs for victims, usually through a place to accommodate aid distributed through television, social media or other platforms. This situation makes the distribution of aid to victims uneven because it only provides assistance based on the total assistance collected so that this problem can result in many victims being late in getting assistance or not getting it at all. This happens because of the lack of information obtained which makes the management of needs for victims not distributed properly and efficiently. For families of victims who want to find family members who disappeared during the disaster, they have difficulty where they have to report to the office or post that is available directly which makes the flow of data collection for victims slow because the information goes slowly.

From the problems above, an Earthquake Relief Management System for Victims and Donors in Indonesia application was designed based on a website application that helps in dealing with disasters. This application will display details of natural disasters that occurred starting from the location of the disaster, detailed data of disaster victims, and other information in the field. In every natural disaster data, there will be information on where to collect aid for donors. In this application, officers who are at the disaster site can also exchange information with other application users.

1.3 Project Aim

Earthquake Relief Management System for Victims and Donors in Indonesia will help all parties involved in disaster management starting from donors, officers, and victims in terms of recording the need for logistical assistance, distribution of aid, registering all victims and other information needed during the disaster.

1.4 Project Objectives

This project aims to facilitate disaster management in terms of obtaining information during disaster management. The objective of this project is:

1. To evaluate collecting and searching for information during disaster management such as disaster locations, data on the number of victims, and helping post in term of effectiveness,
2. To classify information for victims who have lost family members,
3. To design and develop a platform for donors and officers at disaster locations to manage logistics assistance,
4. To explore the purposes other information such as emergency contact numbers and tips when a disaster occurs.

1.5 Project Scope

System scope:

1. The project base on website,
2. The application has only login features when user can add only by admin,

3. Gathering relief will stop when all needs have been met and can be open again when it needed,
4. For users with a volunteer certificate are the high priority when purpose as volunteer.
5. All activity and changed data at the system will record to minimize corruption

Admin scope:

1. Admin can add, edit and delete information during the disaster such as disaster locations, data on the number of victims, additional information, and help post information,
2. Admin can CRUD user profile,
3. Admin can view activity history from the system

Coordinator scope:

1. Coordinator can view the earthquake detail, post, victims, needs, and refugee data,
2. Coordinator can only CRUD data only from post where coordinator assigned
3. Coordinator can CRUD victim data

1.6 Chapter Summary

Disaster management in this tt system is used to assist and facilitate data and information centers in carrying out disaster management processes for victims of natural disasters. With the application of this system that will connect all groups involved during natural disasters. This system is intended so that the public can get news or information services in the form of a website

and then be able to make transactions in the form of donations to victims of natural disasters through the available donation services. Do not forget that the existence of this system will make the development of regional disaster management information more developed.