ABSTRACT

DEVELOPMENT OF DISASTER MITIGATION APPLICATION INFORMATION SYSTEM BASED ON MARINE WEATHER FORECASTS FOR FISHERMEN USING EXTREME PROGRAMMING METHOD (CASE STUDY: KEJAWANAN ARCHIPELAGO FISHING BEACH)

By:

Muhammad Fariz Maulana

19104035

Indonesia is a maritime country where geographically the number of oceans surpasses that of land., consisting of 2.01 million km2 of land, 3.25 million km2 of ocean, and 2.55 million km2 Exclusive Economic Zone (EEZ). With this ocean area, Indonesia's economy in the maritime sector can be relied upon to improve the national economy. As part of an endeavor to enhance the well-being of fishermen and other sectors that contribute to the economy, it should be considered, especially those who work or live in the sea or coastal areas, unfortunately some people do not consider this. According to the National Disaster Management Agency or commonly called BNPB (Badan Nasional Penanggulan Bencana), 95% of natural disasters that occur in Indonesia are hydrometorological disasters. Hydrometorology is a natural disaster caused by changes in weather such as humidity, temperature rain and wind. Natural disaster mitigation should be done to avoid unwanted things. Natural disaster mitigation is a series of efforts to reduce disaster risk, either through physical development or awareness and capacity building in the face of disaster threats. With the advancement of technological developments all things can be done easily, the existence of an information system will be very helpful in no exception in terms of natural disaster mitigation. Therefore the purpose of this research is to create a weather forecast application information system for fishermen as an effort to mitigate natural disasters. The results of this study produced an Android-based maritime weather monitoring information system. Where the application created can display information about weather monitoring that contains today's weather forecasts, heavy rain forecasts, sea wave forecasts and also wind distribution forecasts. In the development process using the Extreme Programming method.

Keywords: *Application, Disaster Mitigation, Information System, Technology, Extreme Programming*