Faculty of Electrical and Electronic Engineering Technology

DEVELOPMENT OF TEMPORARY ACCOMMODATION CENTER SYSTEM (TACS) FOR FLOOD VICTIMS USING PHP MYSQL DATABASE.

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Bachelor of Computer Engineering Technology (Computer Systems) with Honours

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SITI NUR AISSYAH BINTI ABDULLAH

A project report submitted
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Date : 5/2/2023

DEDICATION

I dedicate this project to my creator Allah S.W.T, my strong pillar, my source of inspiration, wisdom, knowledge and understanding. He has been the source of my strength throughout this project and on his wings only have I soared. I also dedicate this work to all of my family members, my friends and each person who am I ever encountered in my whole life which who brings along the inspiration that came all the ways, who has encouraged me during the chapter of my studies, and whose encouragement has made sure that I give it all it takes to finish this chapter path which i have started. This project I also dedicate to my supervisor, TS. DR Rostam Affendi Bin Hamzah for his guidance in assisting me through the journey of completion for my degree project. Thank you for all of your existing in my life. My love and appreciation for all of you can never be measured. May allah bless all of you.

ABSTRACT

In Malaysia, natural disasters that often occur are floods that will hit several states throughout Malaysia due to changes in monsoon winds and the country are also threatened by continuous flash floods due to the unplanned development, neglect of environmental conservation aspects, and an uneven distribution of rainfall in the country over the past five years. Every time a flood disaster strikes, the country panics as the affected areas become more and more widespread and occur in areas that are not expected at all and each time a flood disaster strikes, the victims of the disaster will be placed at a temporary accommodation centre. The management of this centre are mostly depending on a 'logbook' as it will record all the information of flood victims to total up the number of floods victim to giving any assistance needed as well as relevant individuals who came for the donation and volunteering purposes. With this research paper, the information and data collected will be systematic, more accurate and comprehensive where these data can be used for the purpose of official documentation on certain agencies and stakeholders. The more complete and organized data can be shared more quickly to other relevant and interested agencies for the purpose of documenting for their part as well as formulating a more comprehensive action plan by referring to the data stored in the database in the future to estimate the rate of flood victims who will be involved in the event of another flood disaster. Then, more thorough preparations can be done to help flood victims and relevant agencies can take swift action.

ABSTRAK

Di Malaysia, bencana alam yang paling kerap berlaku ialah banjir yang akan melanda beberapa negeri di seluruh Malaysia akibat perubahan angin monsun dan negara ini turut diancam banjir kilat berterusan akibat pembangunan tidak terancang, pengabaian aspek pemuliharaan alam sekitar, dan pengagihan yang tidak sekata. Setiap kali bencana banjir melanda, negara menjadi panik kerana kawasan terjejas semakin berleluasa dan banjir boleh berlaku di kawasan tidak dijangka dan setiap kali bencana banjir melanda, mangsa bencana akan ditempatkan di pusat penempatan sementara. Pengurusan pusat ini kebanyakannya bergantung kepada 'buku log' kerana buku ini akan merekodkan segala maklumat mangsa banjir sehingga jumlah keseluruhan mangsa banjir untuk menghulurkan sebarang bantuan yang diperlukan serta individu berkaitan yang datang untuk menghulurkan sumbangan dan sukarelawan. Dengan adanya kertas penyelidikan ini, maklumat dan data yang di kumpul akan menjadi lebih sistematik, lebih tepat dan komprehensif di mana data ini boleh digunakan untuk tujuan dokumentasi kepada agensi dan pihak berkepentingan tertentu. Data yang lebih lengkap dan teratur boleh dikongsi dengan lebih cepat kepada agensi lain yang berkaitan dan agensi yang akan mendokumentasikan data-data ini bagi pihak mereka untuk merangka pelan tindakan yang lebih komprehensif dengan merujuk kepada data yang disimpan dalam pangkalan data pada masa hadapan untuk menganggarkan kadar mangsa banjir yang terlibat sekiranya berlaku bencana banjir lagi. Kemudian, persiapan yang lebih rapi boleh di buat bagi membantu mangsa banjir dan agensi berkaitan juga boleh mengambil tindakan pantas yang lebih pantas pada masa yang akan datang.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

CHAPTER 1

INTRODUCTION

1.1 Background

Every time a flood disaster strikes, the country panics as the affected areas become more and more widespread and occur in areas that are not expected at all, and each time a flood disaster strikes, the victims of the disaster will be placed at a temporary accommodation center. The management of this center mostly depends on a 'logbook' as it will record all the information of flood victims to total up the number of floods victim to give any assistance needed as well as relevant individuals who came for the donation and volunteering purposes.

With this research paper, the information and data collected will be systematic, more accurate, and comprehensive where these data can be used for the purpose of official documentation on certain agencies and stakeholders. The more complete and organized data can be shared more quickly with other relevant and interested agencies for the purpose of documenting their part as well as formulating a more comprehensive action plan by referring to the data stored in the database in the future to estimate the rate of flood victims who will be involved in the event of another flood disaster.

Then, more thorough preparations can be done to help flood victims and relevant agencies can take swift action. This study will be focusing on the aspect of data collection of flood victims as well as those involved in the settlement of the flood disaster whereby the collected data can be used for further research and observation in other aspects as well.

This study will apply the use of a database where the identification information of all flood victims, members of the agencies involved, volunteers, and any related individuals will be collected for documentation purposes. For the victims it will include all their related information in general, to facilitate the process of placement of flood victims and for the observation of some parties such as health workers.

1.2 Problem Statement

Figure 1-1: Example of 'Log book' used to enter the flood's victim and Temporary Accommodation Center visitors 's information.

Figure 1-2: Content of the 'Log book' used to input all the information needed.

In a temporary accommodation center for flood victims in Malaysia, the use of “logbooks” is still in use. Where all the information is recorded using the method of writing in the book which resulting the data number of floods victim are may not accurate. This method is inefficient because it requires and takes time to do the record for all the

necessary information and total up the number of victims in a temporary settlement center for floods disaster. This may cause a waste of time and inefficient work to the related government agencies involved in managing flood victims as they need go through one-by-one number of victims to obtain all the information needed.

1.3 Project Objective

The main aim of this project is to propose a systematic and effective methodology to design a system Development Of Temporary Accommodation Center System (TACS) For Flood Victims Using PHP MySQL Database. Specifically, the objectives are as follows:

a) To design the database system, build that can be used as to share the information needed to any related agencies before, during or after the flood disaster.

b) To develop a system that can help the temporary accommodation center managed and help the floods victim orderly.

c) To build a database system that stored all the important needed information of the floods victims.

1.4 Scope of Project

This system will be targeting the user for the government agencies, humanity agencies and rescue center development. The system will be developed in web based.

a) Administrator

i) Manage user account.

ii) Managing the system.

iii) Register and login account.

b) User (Rescuer and the Temporary Accommodation Center officer):

i) Register and login account.

ii) Review, input and update all related information for flood's victims, visitor and volunteer.

c) General User (victims)

i) The victims need to enter the related information to the system assisting by the officer on Duty (General user).

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

A study was conducted to acquire information pertaining to the system being developed, which is an important part of research. The concept for the system that will emerge can be identified after the study is completed. Furthermore, the notion in designing the system will be completely applied through theories and concepts linked to development initiatives. This study will investigate all the project's available information. All the information based on research are important to make comparison and new idea on the system to be develop. All the information obtained by process of reading, analyzing, evaluating, and summarizing on selected research paper that are related and corresponding to the project.

Based on the definition from the Oxford Languages, Flood is the overall picture of a large amount of water exceeding normal limits, especially on normally dry land (noun) [1]. Flood also means to cover or submerge (an area) with water in a flood (verb) [1]. Floods are a common occurrence in drainage systems, rivers, and streams. This occurs when drainage routes are clogged, and rivers and tributaries are unable to handle the additional water caused by severe weather. Water penetrates the surrounding area via drainage canals, which predate the natural or constructed cliffs, causing flooding. Furthermore, human activities that have a negative impact on the environment, such as mining and deforestation, have raised the risk of flooding.

2.2 Overview of Flood Disaster in Malaysia

Natural calamities strike Malaysia on a regular basis, with floods common during the north-eastern monsoon season. This is also owing to the constant rain that has blanketed a large section of the country. Just three months after severe flooding took hundreds of lives across the country, the city Kuala Lumpur and areas in Selangor state were struck by flash floods on March 7. Two measuring stations in the capital obtained the data that with 106.5mm and 155mm of rain falling where the heavy rain began falling at 2.30 pm in just two hours. The floods were caused by exceptionally heavy rainfall over a two-hour period, and the existing drainage system was unable to withstand the high flow of water. During the New Year season, the country was once again pummelling by severe rain, resulting in floods in six peninsular states and Sabah on January 2. Kelantan and Terengganu, both on Peninsular Malaysia's east coast, were recently hit by flash floods where at least two people have been killed, and 20,000 people have been displaced.

Floods in various states across the country killed many people and ruined a great deal of property. Rivers were flooded by heavy rainfall and floods, which flooded numerous urban areas and properties. Thousands of drivers were trapped because of the flooding. Thousands of people have been forced to flee their homes. Many people were left without food or water for days. In other sections of the country, more than 54,000 flood victims looked for shelter at 334 aid centres. With 29,108 flood victims, Pahang was the state with the most, followed by Selangor with 23,302 victims.

All flood victims will be assigned to the nearest temporary accommodation centre, which plays an important role in disaster response and recovery phase by providing optimum security, personal safety, climate protection, and improved resistance to ill health and diseases for victims who have lost their homes because of the disaster. Following the

recent floods in various parts of the country in March, about 300 individuals in Selangor were evacuated to relief centers, while at least 250 flood victims were evacuated in Kuala Lumpur. In a video circulating online, people can be seen climbing to the tops of submerged automobiles in Jalan Kuchai Lama. Water levels rose to as high as 2 metres because of the flood, and approximately 12 automobiles were stranded, with victims escape to their car roofs. All the victims have been rescued were sent to a safe location.

Floods and heavy rains knocked off electricity and communications. Water inundated cities and towns, inflicting extensive damage to houses and vegetation. Rain-induced landslides exacerbated the issue. Strong winds ripped the roofs off houses and uprooted trees, particularly on the peninsula's east coast states. Climate change, the indirect effects of tropical winds, growing urbanisation, the removal of green spaces, deforestation, and monsoon rains will all contribute to the country's future floods.

2.3 Overview of Flood Disaster Management in Malaysia.

Climate change may endanger the health and development of Malaysia's people. Communities along the coast, for example, are at risk of flooding as sea levels rise. Floods have wreaked damage in numerous places of Malaysia since 1971. As a result, the government created the Natural Disaster Management and Relief Committee (NDMRC) , which would have been given the task to coordinating flood disaster response at all levels of government, along with the national, state, and district levels, with the goal of decreasing flood damage and trying to prevent human death.

In Malaysia, flood disaster management is governed by the National Security Council (NSC) Directive No.20 and Fixed Operating Regulations (PTO). The Land Disaster and Relief Management Policy and Mechanism intended to reach this goal.

Disaster management in Malaysia is divided into three areas, each with its own range of responsibilities. In the country, a new disaster management organisation has recently established. The National Disaster Management Agency (NADMA) of the Prime Minister's Office was designated the primary disaster management agency for regional and international humanitarian efforts in 2015. The Malaysian Prime Minister will lead the plan at the federal level, with NADMA, the Department of Social Welfare Malaysia (SWM), and the Malaysian Civil Defence Force assisting and executing the plan at the state level (MCDF).

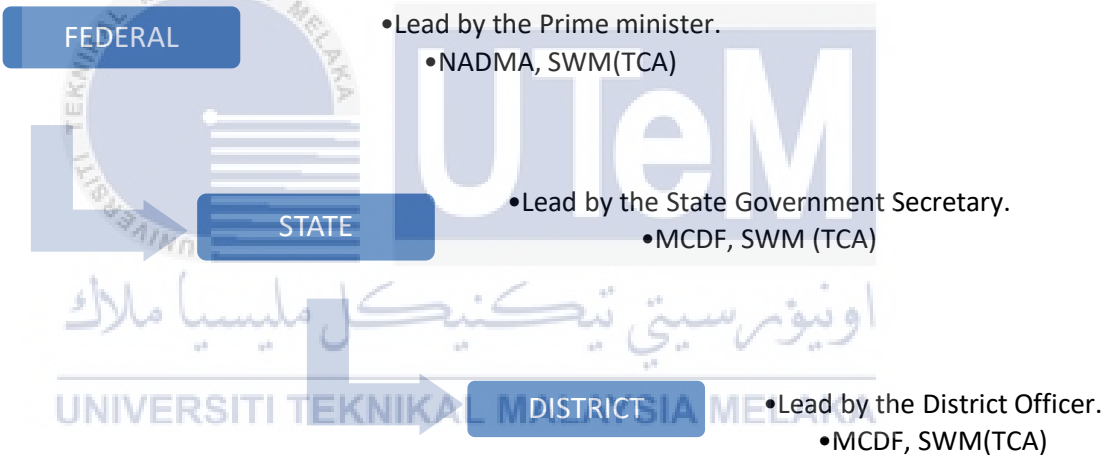

Figure 2-1 Federal, State and District levels of the flood disaster management

The temporary evacuation centers are provided and maintained by the Department of Social Welfare Malaysia (SWM). Food, clothing, and other basics will be provided and distributed by the SWM to flood victims. In addition, it will oversee disaster victim registration to provide rehabilitation, assistance, and counselling session recommendations to catastrophe victims. The MCDF will assist in the rescue of flood victims as well as the