

UNIVERSITI TEKNOLOGI MARA

**I-KOMPLEN: CARTOGRAPHIC
INTERACTION APPS FOR
DISABLED FACILITY AT FSKM**

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JANUARY 2021

ACKNOWLEDGMENT

Alhamdulillah, all praises to Allah SWT and His blessing for the all the trials, strengths and opportunities that has been given to me since the beginning until I finally complete the proposal for my final year project in time.

First of all, I would like to express my gratitude to my supervisor Mrs. Zatul Amilah Binti Shaffiei for guiding and providing me with necessary information that was very helpful for me to complete the proposal for my final year project. It has been a great honour and pleasure to have her as my supervisor for this project. Furthermore, I wish to extend my sincere thanks to my Final Year Project lecturer, Dr. Emma Nuraihan Binti Mior Ibrahim for her patience and determination in teaching this course to me and my classmates. Her continuous guidance, consistent support and positive encouragement has enabled me to successfully overcome many difficulties and challenges in finishing my work. I am always inspired by her determination and effort to make sure me and my classmates understand and complete our proposal.

Apart from that, I am also thankful to my examiner, Dr. Rozianawaty Osman for her valuable comments and suggestion on this project. Her positive response has given me more insight on the things that can be improved for this project. In addition, my deepest gratitude goes also to my family members who have given me a lot of endless support and prayers throughout this project. Last but not least, I would like to give my special appreciation to my classmates who were with me and support me through thick and thin. Their advice and support have aid me in shaping my project Thank you for the support and the help that has been given. May Allah SWT bless us with peace and happiness. Amin.

ABSTRACT

There are a lot of disabled facilities that have been provided in a public building to ease the disabled people in doing their daily routines such as disabled toilets, disabled parking, and wheelchair ramps. Disabled facilities play an important role for disabled people to help them with daily activities. However, there are many disabled facilities did not follow the standard measurement which is the universal design. These facilities cause disabled people to have trouble using them. Therefore, this project is intended to help disabled people to get their rights by making a complaint against disabled facilities. i-Komplen is a mobile app that allows users to make a complaint through a map with the implementation of interactive mapping. The objectives of this project are to identify the requirements for the i-Komplen mobile application., design the i-Komplen mobile application and develop and demonstrate the i-Komplen mobile application. This project is developed on the android platform. The target user of this project is public user as user and staff of facilities unit as admin. Mobile Application Development Lifecycle (MADLC) is the approach employed to develop this application. The interactive mapping technique utilized in this project is the marker clickable. Users can make a complaint by selecting the disabled facility by clicking the marker on the map. In the future, this project is recommended to include audio features so the user can explain details about the complaints. In a nutshell, this project can help disabled people to make a complaint about the disabled facilities that did not follow the universal design.

Keywords: Person with Disabilities, Disabled facilities, Universal design, Interactive mapping, Mobile Application Development Lifecycle, Marker clickable

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CHAPTER 1

INTRODUCTION

This chapter describes the project background as well as the problem statement for the development of i-Komplen: Cartographic Interaction Apps for Disabled Facility at FSKM. Apart from that, this chapter also discusses the project aim, project objectives, project scope and limitation, and project significance.

1.1 Project Background

People with disabilities (PWDs) include all individuals with neurological, emotional, behavioral, or long-term physical impairments that may impede their full and successful involvement in society on an equal footing with those in touch with different barriers under the United Nations Convention on the Rights of Persons with Disabilities (Cuevas, 2014). Physical barriers in the built environment can obstruct the movement of PWDs. Therefore, facilities for disabled persons should be provided to ensure that PWDs participate effectively in society.

Disabled facilities are accessible to the usability and future benefit of any program or individual, and to the extent that a commodity such as service, computer, and surroundings is applicable for all people, particularly disabled people ("Disabled World", 2016). To confirm the disabled facilities are accessible by PWDs, a universal design of the products should be considered. Universal design is the design of goods and technologies for all people to use, to the fullest degree possible, without the need for modification or special design ("National Disability Authority", 2020). However, some facilities did not follow the universal design and the PWDs are having trouble in using the facilities ("Health and Places Initiative", 2015).

PWDs in Malaysia has shown that the application of the procedure against the acts and regulations is still lacking. Many of the access and services offered