UNIVERSITI TEKNOLOGI MARA

ENCRYPTED MOBILE MESSAGING APPLICATION USING AES BLOCK CIPHER CRYPTOGRAPHY ALGORITHM

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ABSTRACT

This project focuses on securing the messages from the intruders. Nowadays, people mostly use mobile application to communicate with each other. Therefore, maintaining privacy and confidentiality becomes reasonably challenging. At present, there are no mobile applications that have an encryption and decryption text method before sending and receiving the messages. The project requires the sender and the receiver to have a special key to decode the encrypted text messages. The only way to read the messages is to know the method and the algorithm used in this project, which only the sender and the receiver will have the special key. Advanced Encryption Standard algorithm is being used to encrypt the text messaging. The programming language that is used to write the program is Java Language that will run on android phones. As the result, this project was tested on the functionality of the mobile messaging application. The object that have been tested on were the encryption and decryption button, where the text will be unreadable on screen, the encrypted character stored in the database, the successful input special key to encrypt and decrypt the text. It proved that the messages are firmly secured by using encrypt and decrypt technique which the unauthorized person cannot read the messages if they do not have the key. The significance is to protect personal information and provide future robust security on mobile messaging application. Messaging encryption system needs to overcome this intermediate subjects and deliver instructions or messages instantaneously and securely. With this only the sender and recipient will be able to send and receive private information.

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CHAPTER 1

INTRODUCTION

1.0 Introduction

This chapter provides the background and problem statement for the study. It also gives details on the objective, scope and significance of Encrypted Mobile Messaging Application Using AES Block Cipher Cryptography Algorithm in this chapter regarding the development of this project.

1.1 Background of Study

Communication has continuously been a crucial factor in development of human's standard of living and the technology innovations additional improved and created communication a lot of powerful (Riaz & Ikram, 2018). Through mobile phone, people can access to various mobile messaging application which are mostly free to download and use.

However, these advantages come with their own challenges. There are adversaries with modified intension can eavesdrop the communications sent between user A and user B. So as to unravel this drawback encryption techniques are use to disguise the intruder in the network (Olaleye & Ojha, 2017). Encryption has become an extremely important way to secure messages (data) sent through communication networks. (Azmi, Zulhuda, & jarot, 2012).