**Universiti Teknologi MARA**

# MINDWORKS: MOBILE APPLICATION FOR VIRTUAL STUDY

**MIMI MELISSA BINTI MAKHTAR**

**Thesis submitted in fulfilment of the requirement**

**for Bachelor of Information Technology (Hons.)**

**Faculty of Computer and Mathematical Sciences**

**FEBRUARY 2022**

# ACKNOWLEDGEMENT

Alhamdulillah, praises and thanks to Allah because of His Almighty and His utmost blessings, I was able to finish this research within the time duration given. Firstly, my special thanks go to my supervisor Dr Nurulhuda Noordin for her encouragement, guidance, suggestions, critics throughout the project completion. It has been a great pleasure and honour to have her as my supervisor.

Next, I offer a special thanks to Dr. Emma Nuraihan Binti Mior Ibrahim, my CSP600 lecturer, for her guidance, understanding, patience and most importantly, she has provided positive encouragement and a warm spirit that helped me to complete this project.

My deepest gratitude goes to all of my family members. It would not be possible to write this thesis without the support from them. I also would sincerely like to thank all my beloved friends who were with me and support me through thick and thin.

# ABSTRACT

Many university students are experiencing difficulties in concentrating when studying or completing their work alone. This is because the materials they are studying are hard to understand, leading to a loss of interest and focus. This project is a mobile application called MindWorks: Mobile Application for Virtual Study, which is a virtual study space for the students to form small online communities and communicate with one another in real time, much like they would in a face to face group study. Besides that, the objectives of this project are to identify the requirements, to design and develop the MindWorks: Mobile Application for Virtual Study. The scope of this project focuses on university students who possesses an Android-based mobile device. This project used Mobile Application Development Life Cycle (MADLC) as the methodological approach up until testing phase only. This mobile application focuses on collaborative mode of learning using online platform where students can discuss a topic openly using the forum. Besides that, the chat box will allow the communication among the active students in the application. During the testing phase that involved eight users, they were given a series of tasks to complete while reviewing the application. As a result, they found that this application is easy to use and functional. The future recommendation for this mobile application is to develop MindWorks mobile application for iOS platform and adding the video call features, add friend function and push notification that will notify the users regarding the activity in their forum post.

# TABLE OF CONTENTS

# CHAPTER 1

# INTRODUCTION

## 1.1 Background of study

One way to transform a country into a developed one is by using technology, not only in agriculture, medicine, and industry but also in education. The Malaysian Education Blueprint 2013 – 2025 states that the information and communication technology (ICT) should improve educational quality in Malaysia, (Hamid, Peng, Shaharom, Ter, & Raman, 2018).

In the twenty-first century, the importance of information and communication technology (ICT) in daily life is undeniable, as illustrated by the expression "a borderless country." In line with the advancement of modern technology, the Malaysian Ministry of Education (MOE) has implemented ICT in education, which includes infrastructure, content, and teacher training. For example, the MOE had carried out several ICT projects that use the computer as the main activity, (as cited in Hamid, Peng, Shaharom, Ter, & Raman, 2018).

Mobile technology is a highly fast-growing field that is closely tied with our work and daily lives. Every day, innovations are added to its growth, with evolving new trends of consumption, which have both positive and negative implications. In education, these mobile devices provide people in academic or non-academic settings with various learning opportunities such as portability, social interactivity, context awareness, accessibility, individuality, and affordance (Crompton, 2013). As a result, these mobile technologies are beneficial for learners because they can participate in educational activities and learn without needing to be in the institution, (Jayatilleke, Ranawaka, Wijesekera, Kumarasinha, 2018).