



Faculty of Computer Science and Information Technology

***EBULI: A MOBILE APPLICATION TO REPORT BULLY***

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Bachelor of Computer Science with Honours  
(Software Engineering)

2019

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This project is submitted in partial fulfilment of the  
requirements for the degree of  
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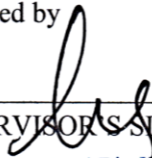
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I would also like to take this opportunity to express my apology for any mistake and shortcoming in carrying out this project. To end with, I am truly delighted to be able to carry out this project and hoping that this project would bring benefits to others.

# Abstract

*eBuli is a mobile application proposed to assist students and the management of Faculty of Computer Science and Information Technology (FCSIT) in Universiti Malaysia Sarawak (UNIMAS) with bullying activity that is silently occurring among students. This mobile application acts as a platform for students to voice out their worries and make a report to administrators that may be Dean or Deputy Deans of the faculty and provide an effective bully reporting management to the administrators. This mobile application is introduced to replace the manual and informal ways of students doing bully report that was done through various medium which makes most student unable to identify the correct way and to who they should make a report to and also making the administrator lost track of the reports. Other than that, this mobile application is also expected to be able to raise awareness about bullying among students and encourage students to feel free to speak out and stand up against bullying. This Final Year Project report discusses the background of this project, literature review of similar existing system, detailed discussion of methodology used in the development of the proposed mobile application, implementation and testing of the proposed application and finally the future works. This proposed mobile application is significant in providing a convenient and user-friendly platform for students of FCSIT to make bully reports and efficient bullying offences report management system for the administrator in conjunction to raising awareness about bullying culture among students in the faculty.*

# Abstrak

eBuli adalah aplikasi mudah alih yang diusulkan untuk membantu pelajar dan pengurusan Fakulti Sains Komputer dan Teknologi Maklumat (FSKTM) di Universiti Malaysia Sarawak (UNIMAS) dengan aktiviti membuli yang berlaku dalam diam di kalangan pelajar. Aplikasi mudah alih ini bertindak sebagai platform untuk pelajar menyuarakan kebimbangan mereka dan membuat laporan kepada pentadbir iaitu samada Dekan atau Timbalan Dekan fakulti dan menyediakan pengurusan pelaporan kes buli yang efektif kepada pentadbir. Aplikasi mudah alih ini diperkenalkan untuk menggantikan cara manual dan tidak formal di mana pelajar melakukan laporan buli yang dilakukan melalui pelbagai medium yang membuat kebanyakan pelajar tidak dapat mengenal pasti cara yang betul dan kepada siapa mereka harus membuat laporan dan juga membuat pentadbir hilang jejak laporan. Selain itu, aplikasi mudah alih ini juga dijangka dapat meningkatkan kesedaran tentang kes buli di kalangan pelajar dan menggalakkan pelajar berasa bebas untuk bersuara dan menentang buli. Laporan Projek Tahun Akhir 1 ini membincangkan latar belakang projek ini, kajian kesusasteraan terhadap sistem sedia ada yang serupa dan perbincangan terperinci mengenai metodologi yang digunakan dalam pembangunan aplikasi mudah alih yang diusulkan, pembangunan dan pengujian aplikasi serta penambahbaikan pada masa hadapan. Aplikasi mudah alih yang diusulkan adalah penting dalam menyediakan platform yang mudah dan mesra pengguna untuk pelajar FSKTM untuk membuat laporan kes buli dan sistem pengurusan laporan kesalahan buli yang efisien untuk pentadbir sekaligus meningkatkan kesedaran tentang budaya membuli di kalangan pelajar di fakulti.

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# CHAPTER 1 : INTRODUCTION

## 1.1 Introduction

Bullying is recognized as a serious matter that arises in any community especially among youth. In higher education environment, bullying may seem to occur at a very low intensity due to not many reports have been received. According to Perry & Blincoe (2015), in a survey of bullying in higher education, 63.35% witnessed bullying in some capacity since coming to college, and 27.15% reported being victims of bullying where verbal bullying was the most common subtype observed and experienced. This matter should not be overlooked because it might spread silently among students and affecting the victim mentally, emotionally and physically. Minimal reports might be received due to most victims or witnesses are afraid to make a report because they are afraid that the bullies will take actions to them for reporting. Besides, they might also unsure of how to make a report and who they should ask for help.

The main purpose of eBuli application is to receive and store reports about bullying offences occurring around the faculty community. It is made as mobile application so that it is portable and can be accessed anywhere and anytime using users' mobile devices. With this mobile application, bully victims and witnesses can feel free to make a report anonymously without being afraid of their identity being known by others. This mobile application can act as a platform for students to fight against bullying and become a more responsible human being by preventing bad culture of bullying from spreading among students. This application also acts as a medium for the faculty management to monitor and stay aware of the bullying offences that is occurring around the faculty so that they can take further actions to stop it.

---

## 1.2 Problem Statement

Reports regarding bully offences has been done manually and informally through various medium such as WhatsApp, Facebook and face-to-face conversation which makes most students have no idea how to actually make a report and who they should ask for help. Other than that, it also makes it difficult for the administrator to keep track of bullying offences occurred without having a record of the reports.

## 1.3 Aims and Objectives

The aim of this project is to provide a platform for effective and user-friendly bullying offences report management in order to create awareness and fight against bullying that is occurring among students. The objectives of this project are:

- 1. To develop a convenient and easily accessible application for students to make a report regarding bullies**

This proposed application provides straightforward functionalities for both user and administrator making in convenient for both parties. Having a mobile application to report bully makes it easy for user access anytime and anywhere through their mobile devices.

- 2. To keep a record of every bullying offences occurred**

A mobile application to report bully can cater the whole bully report management system in a better way. Administrators can have a systematic bullying offence record through this proposed application rather than receiving reports from various mediums and lost track of the report received.

---

## 1.4 Methodology

The methodology used for this mobile application development is Rapid Application Development (RAD) methodology. This methodology is chosen because it prioritizes rapid prototyping and iterative delivery which promotes faster application development and higher quality of end product. The best benefit of this methodology is that it enables the developer to receive frequent feedback from users who are interfacing with the application directly during development and prototyping. With frequent iterations and prototyping, progress on the overall project can be easily measured and assessed to stay in schedules and budgets. Figure 1.1 shows the life cycle of RAD methodology.

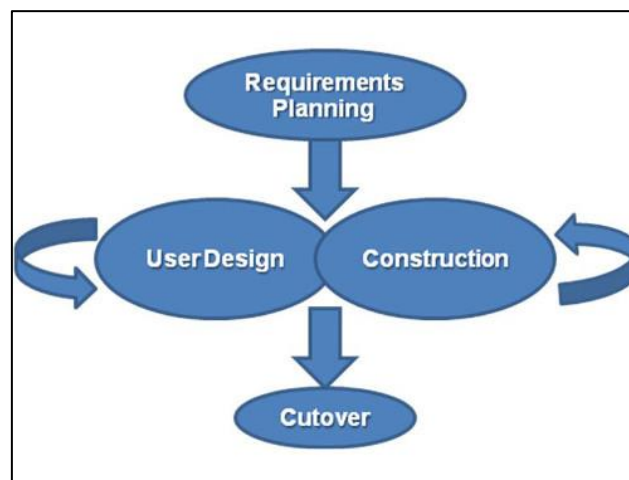


Figure 1.1: Rapid Application Development (RAD) Life Cycle  
(Reprinted from *10 Top Programming Methodologies.*, Cynthia Harvey, September 12, 2016, retrieved from <https://www.developer.com/mgmt/slideshows/10-top-programming-methodologies.html> Copyright © 2016 developer.com)

There are 4 distinct phases of RAD which are:

- 1. Requirements Planning phase**

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In this initial phase, discussions and agreement on business needs, scope, constraints and system requirements must be achieved so that prototyping can begin. Requirements gathering through interviews and surveys is carried out with a group of students in the faculty throughout this phase.

## **2. *User Design phase***

User Design is a continuous interactive process that allows users to understand, modify and eventually approve a working prototype of the system that meets their needs. Modelling of system flow and database design and prototyping of user interface are used to represent the processes, inputs and outputs of the system to the user.

## **3. *Construction phase***

This phase focuses on application development task with the continuous participation of users. Programming, integration, and system testing take place in this phase. This phase is repeated as often as needed along with User Design phase, as the users will work hand in hand with the developer to ensure their needs are being met at every step of the process.

## **4. *Cutover / Implementation and Maintenance phase***

This final phase is similar to implementation phase. The tasks include data conversion, testing, changeover to a new system as well as user training. All final changes are made and further maintenance of the application will continue as needed.

RAD methodology promotes fast project turnaround making it a favourable choice for developers who are working in a fast-paced environment. This approach is also flexible and adaptable for changes in conjunction of having greater efficiency, rapid development and effective communication.

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## **1.5 Scope**

The scope of this project is as follows:

1. The target of the system is bullying offences that occur among students in Faculty of Computer Science and Information Technology UNIMAS.
2. The administrators of this application are the Dean and Deputy Deans of the faculty.
3. This application will provide report records and dashboard to the administrators. The report authenticity will have to be validated upon submission.

However, there are few constraints of this project scope. This project focuses mainly on the reliability of the proposed mobile application. Hence, the application may not be able to provide dashboard of the data and do validation of report authenticity for the moment but they will be considered for future works.

## **1.6 Significance of Project**

This project is significant to act as a user friendly and easily accessible mobile application for students to make reports and for the administrator to keep track of the bullying offences that is happening around the faculty. This mobile application is expected to be able to create awareness about bullying among students and helps in preventing bullying culture from spreading in the faculty community.

## **1.7 Project Schedule**

The project schedule and Gantt Chart of this project can be viewed in Appendix A.

## **1.8 Expected Outcome**

By the end of this project, this mobile application will enable administrators to receive and stay updated of the bullying offences that is happening around the faculty and take further actions.

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This application will also allow students to feel free to make reports and have higher sense of responsibility and awareness in preventing bullying from increasingly grown in the faculty community.

## **1.9 Project Report Outline**

### **1.9.1 Chapter 1: Introduction**

In Chapter 1, introduction and description of the proposed project is made to provide readers with a clearer overview about the proposed application to be developed. This includes brief introduction, problem statement, objectives, methodology, project scope, significance of project, project schedule, expected outcome and summary.

### **1.9.2 Chapter 2: Literature Review**

Chapter 2 discusses about the findings and researches done on the existing application or system that seems similar to the proposed application on the market, which can be referred through articles, journals and conference papers. Limitations and scope of the existing system is mentioned and discussed in this chapter in order to compare with the proposed application and find out the aspects that should be considered in this project.

### **1.9.3 Chapter 3: Requirement Analysis and Design**

Chapter 3 discusses more about the methodology to be used in this project. The methodology that will be applied is Rapid Application Development (RAD) Methodology. This chapter also discusses about obtaining and analysing user requirement. After the discussion of user requirement analysis, the design for the proposed application is represented in UML

---

Diagrams, Entity Relationship Diagram (ERD), Data Dictionary and along with providing prototype.

#### **1.9.4 Chapter 4: Implementation**

Chapter 4 is about the implementation of the developed application. This chapter will discuss the installation and configuration of the development tools involved and the development of the application in detail with screenshots of prototype interface.

#### **1.9.5 Chapter 5: Testing**

In Chapter 5, the testing scope, and testing approach will be defined. The execution of testing phase that is done in 4 levels also will be discussed along with the attachment of few high level and specific test cases.

#### **1.9.6 Chapter 6: Conclusion and Future Work**

Chapter 6 provides a conclusion about the project development and the outline of the future enhancement of the proposed application. This chapter discusses about whether the objectives of the project has been successfully achieved and the user requirements are met. The problems faced throughout the development of this project will also be discussed.