

STUDENT ATTENDANCE SYSTEM
USING QR CODE

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SUPERVISOR'S DECLARATION

I hereby declare that I have checked this project and, in my opinion, this project is adequate in terms of scope and quality for the award of the degree of Bachelor of Computer Science (Computer Systems & Networking) with Honours.

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STUDENT'S DECLARATION

I hereby declare that the work in this thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Universiti Malaysia Pahang or any other institutions.

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Thesis submitted in fulfillment of the requirements
for the award of the
Bachelor Of Computer Science(Computer System & Networking)
With Honours

Faculty Of Computer Systems & Software Engineering

UNIVERSITI MALAYSIA PAHANG

JANUARY 2019

ACKNOWLEDGEMENTS

All praises to ALLAH S.W.T for His blessing that give me strength, patience, and knowledge to complete developing this final year project. Without His mercy that give me a good health, this project cannot be completed within the time.

I would like to express my gratitude to my project supervisor, Dr. Zalili Binti Musa for her guidance during the project run. I would also like to express my heartiest appreciation for her who gave me the chance to do this, which also helped me in doing a lot of research.

Finally, I owe my deepest thanks to my family, my friends for giving their full support in order to help myself to succeed the project. I would like to express my high to all lecturers and friends in Universiti Malaysia Pahang that have shared their knowledge with me throughout the completion of this project.

ABSTRAK

Telefon pintar adalah salah satu perkara paling penting yang hampir semua orang memiliki, terutamanya untuk pelajar universiti. Bilangan pelajar baru yang memasuki universiti semakin meningkat setiap tahun. Oleh itu, ia akan menjadi sukar bagi setiap pensyarah untuk mengendalikan kehadiran pelajar. Sistem Kehadiran Pelajar Menggunakan Kod QR (SASYS) dicadangkan untuk membantu pensyarah untuk mengumpul kehadiran pelajar dengan cara yang sistematik. Sistem ini dibangunkan kerana beberapa masalah yang dihadapi oleh pensyarah universiti seperti mereka perlu mengemaskini kehadiran pelajar mereka semasa sesi kelas. Pensyarah mempunyai dua pilihan sama ada memanggil nama pelajar mereka satu persatu atau hanya memberikan lembaran kehadiran. Selain itu, ini menyebabkan banyak pembaziran dan ia akan selalu memerlukan kos. Kadang-kadang, pelajar juga mengalami kehadiran mereka tidak masuk ke dalam sistem. Walau bagaimanapun, semua masalah di atas dapat menyelesaikannya kerana sistem ini dapat mengesan kod QR. Sistem ini juga boleh menyimpan data ke pangkalan data dan menghasilkan laporan. Hasil yang diharapkan ialah kerja pensyarah boleh dilakukan lebih mudah daripada membuat kesilapan.

ABSTRACT

Smartphones are one of most important item that almost everyone own, especially for university students. The number of new students that entering university are increasing every year. Thus, it will become difficult for every lecturer to handle the student attendances. Student Attendance System Using QR Code (SASYS) is proposed to help lecturer to collect the student's attendance in a systematic way. This system was developed due to the a few problems being encountered by the university lecturer such as they need update their student's attendance during the class session. Lecturer have two choices whether called their student's name one by one or just giving an attendance sheet. Apart from that, this causes a lot of waste and it always will be required some cost. Sometimes, students also experience that their attendance did not enter the system. However, all of the above problem since this system able to detect the QR codes. This system also can store data into the database and generate reports. The expected outcome is that the lecturer job can be done easier rather than making mistakes.

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LIST OF ABBREVIATIONS

SASYS	Student Attendance System
QR	Quick Response

CHAPTER 1

INTRODUCTION

1.1 Introduction

During this modern day, smartphone is a device that is no longer a foreign device to the most of people since it has gradually become an important gadget in everyday life. Smartphones are mobile phones that have an ability like a mini computer that capability to process any data which the only difference in size and its portability.

Smartphone do have many functions. It can become a communication tool, a search engine, a source of entertainment, a record device and so much more. This is why smartphone is chosen as a main topic for this project.

The Android Operating System (OS) is widely used for smartphones. The Android OS is an open source software, so most smartphones that running on it is affordable by students.

Most students nowadays have preferred to use smartphones as all in one tool. Usage of smartphones can reduce the time of taking attendance by lecturer and save time.

Quick Respond Code (QR Code) is one the smartphones function. Smartphones can generate and scan the QR code. This QR Code will be the main key in this project. The QR Code can be used to record attendance and provide an easy way to track attendance university. The study shows that 42% of smartphone users have an average age of 26 years old. (Anh, 2016)

The proposed solution offers a QR code for the students to scan it to take attendant. The code will take student identity and confirm the students' attendance while verifies student identity to eliminate false registration.

1.2 Problem Statement

Nowadays, total of university students in each university can up to 10 thousand. To handle a large amount of student can be problematical to get their attendance. (Masalha & Hirzallah, 2014)

In the current situation, the process to get attendance in majority universities still use the traditional process. The manual process means that when the start of the class, the lecturer will give a piece of attendance sheet and students will sign for it. This is not a systematic way to collect an attendance.

The attendance sheet takes too much time to sign by all students. Students that forget to sign their attendance and they will be assuming not coming for that class.

The problem also happens when the lecturer missi

ng the attendance sheet. Students have to write names on a new piece of paper and sometimes a student can cheat attendance for their absent friends.

Then, it is time consuming for the lecturers to key in their students' attendance in IMS System. Some lectures need to handle multiple classes and students that they tend to make mistakes during the key in.

Lastly, the current system does not generate a report for students. There is some case for several students that they a given a warning letter for absent three times even they never skipped classes. If there is a report, they can check whether their attendance in the system or not.

1.3 Objectives

The aim of this project is to develop an attendance system for student in University Malaysia Pahang (UMP), which will be name Student's Attendance System (SASYS). To achieve the aim of the project, all the three objectives must be meets. The objectives of the project are:

- i. To study the QR Code in SASYS
- ii. To design and develop the SASYS
- iii. To test the functionality of QR Code in SASYS

1.4 Scope

In the way to ensure that the objectives will be achieved, there are few scopes that will be defined which is:

- i. The target user of this system is at students from FSKKP.
- ii. The location is in FSKKP Lab.

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