

**Universiti Teknologi MARA**

**Parcel Tracking Management System  
for Cellarium Centre Melati Using  
Barcode Reader**

**Nur Afiqah Solehah Binti Mazlan**

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## ABSTRACT

Nowadays, many organizations were using web-based applications as preferred technologies to improve the process of managing data and records. This was because web-based applications were able to fully automate the process of recording, reporting, and others. Therefore, this studied focuses on the development of a web-based parcel tracking management system. The current procedure in managing the parcel was time-consuming. To solve the problems existing in the current system, the study will apply a few phases as a methodology that consists of requirement feasibility studied, design, development, and testing. The parcel tracking management system was built using web-based applications such as PHP framework (CodeIgniter), Html, MySQL, and apache to satisfy the managing, recording, and reporting of the parcel picked up and arrived. Moreover, the implementation of barcode technology was to reduce the time in recording the parcel arrived and the time is taken for students to picked up the parcel. The student had to register their parcel tracking number into the system. When the parcel had arrived, they received an email notification from the Cellarium Centre Melati. The staff searched the user's information and track the user's parcel by scanning the student's matric card using barcode reader. The student could pick up their parcel after made a payment. After that, the staff approves the parcels that had been picked up and completed the payment. In addition, the staff had to generate a report on the parcels they receive on a monthly basis. Upon completion of parcel tracking management system, device compatibility testing conducted more potential end users can use this system, including the students and also cellarium's staffs. In conclusion, the result of this web application is for making eased their (staff) work in managing the arrival parcel, save time and paperless.

Keywords:

Web-based application, CodeIgniter Framework, HTML, MySQL, Apache, XAMPP, phpMyAdmin, Barcode Scanner

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# **CHAPTER 1**

## **INTRODUCTION**

This chapter provides the background and rationale for the study. It also gives details of the significance of the issues and problems faced by the students and Cellarium's staff that led to this proposed project, parcel tracking management system for Cellarium Centre Melati using a barcode reader.

### **1.1 Background of Study**

The General Post Office (GPO) was officially established in England in 1660 by Charles II and it eventually grew to combine the functions of state postal system and telecommunications carrier (Marshall & Allan, 2003). Parcel tracking or parcel logging is the process of localizing shipping containers, mail and parcel post at different points of time during sorting, warehousing, and package delivery to verify their provenance and to predict and aid delivery. It developed historically because it provided customers information about the route of a package and the anticipated date and time of delivery (Beat, 2011). This was important because parcel delivery often included multiple carriers in varying environmental circumstances, which made it possible for a parcel to get lost. Tracking numbers are numbers given to parcels when they are shipped. Tracking numbers are useful for knowing the location of time-sensitive deliveries.