

# DESIGN AND IMPLEMENTATION OF AN ANDROID MOBILE LIBRARY MANAGEMENT SYSTEM FOR FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA, NIGERIA

By

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## ABSTRACT

*A mobile computerised system for handling the activities and services of the library provides a comprehensive way to lessen physical labour, reduce human error and grant access to information materials anywhere and anytime. This research work aimed to design and implement an Android Mobile Library Management System that university libraries can use to overcome the human and other challenges that prevent them from providing services on the go. The research work was guided by four objectives and four research questions. The Android Mobile Library Management System was designed and implemented using the Android Studio which contains XML (Extensible Mark-Up Language) and Java. At the back-end HTML (Hypertext Mark-Up Language), CSS (Cascading Style Sheet), PHP (PHP Hypertext Pre-Processor) and MySQL database were used. The system was tested after the development and found suitable to meet all the requirements specified. The system has capacity to add to the integrity of the library, ease the activities of the librarian and eliminate the stress related with the current process of searching for library books.*

*Keywords; Library Management System, Information System, Mobile Application, Android, MLMS.*

## INTRODUCTION

A library is an organised collection of information resources made available to the general population or a specific niche of professionals. It usually consists of information resources in physical or digital formats. In recent times, access to information was only from physical library buildings but as innovation progressed access was extended to the web (Dinesh et al., 2015).

A mobile library management system offers a complete solution for universities and organizations to introduce and integrate specialized functions and services to its community. Mobile library management systems are tools which help the information custodian to maintain and manage library processes through the deployment of computerised system that are powerful and capable of documenting and tracking library transactions such as loaning, accessioning, and registration of library users (Kumaret al., 2014).

The proposed project aims at developing an Android mobile library management system containing materials available in the library in an organised format and help users to access relevant study resources more easily and quickly also availing them the services provided by the library electronically.

### 1. Statement of the Problem

Many university libraries in Nigeria are not yet fully computerised and they continue to embrace the manual approach in handling transactions and completion of some library tasks. It can be concluded that these libraries carry out their activities utilizing paper-based documentation. Some of these library tasks include organisation of library materials for example, cataloguing, processing of books, accessioning, indexing and arrangement, circulation, etc are carried out manually which unavoidably is slow, tedious, prone to error, and information not being recorded accurately. In addition,