**DESIGN AND IMPLEMENTATION OF A WEB BASED AUTOMATED ASSETS MANAGEMENT SYSTEM**

BY

**OWOSAKIN, BABAJIDE ANTHONY**

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# **CHAPTER ONE**

# **INTRODUCTION**

* 1. **Background**

As most information and technology (IT) organizations grow and mature, it becomes more expedient to streamline the process of asset management in order to deliver business or economic value. IT organizations tend to acquire more tools, devices, software and other office equipment which are being shared by multiple people. IT teams are meant to keep track of their resources in terms of software licenses, services, computers and other devices. However, many IT firms continue to struggle with how to efficiently and effectively manage their assets. Assets that need to be replaced from time to time should as well be managed for quick decision making. Many IT organizations in Nigeria are still challenged with the problem of how they can possibly track the lifecycle physical and fiscal information of assets.

A research in 2013 indicates that 30% of the enterprise companies are still using spreadsheet to track their software usage and licenses, and one third of the companies are unhappy with their approach to software asset management.

Apart from tracking an IT organization’s assets, there is a need to control the access of users to those assets and also track the movement of devices from one place to another.

Being able to assess exactly what assets are worth at any given point can be helpful in determine today’s budget and asset management provides such forecast.

Another need for an asset management system arises as IT organizations need to automatically generate detailed assets status report on monthly, quarterly and yearly basis. This would help them to monitory their assets inventory and to make economic decisions.

* 1. **Statement of Problem**

It is a known fact that software asset management has become a major financial risk for some companies. Presently, most small and medium sized IT organizations in Nigeria do not have a means of managing their assets and this has led to problems such as: under deployment and over deployment of software, loss of office equipment, difficulty in budget planning, difficulty in determining business worth, misappropriation of office resources, financial crisis and some other management crisis.

* 1. **Scope of Study**

This project is concerned with design and implementation of a web based asset management system for small and medium sized IT firms. This system will help IT firms to track their assets, control access to assets and also monitor the movement of assets from one place to another which will in turn aid quality and detailed reporting and real-time decision making.

* 1. **Aim**

The aim of this study is to develop a scalable web based asset management system for small and medium sized IT firms that will promote efficient and effective management and control for company assets.

* 1. **Specific Objectives**

The objectives of this study are stated as follows:

1. study and analyze the management of assets by small and medium sized IT firms
2. design a model for capturing organizations’ assets
3. implement a web based system for the design in (b)
4. test the system developed.
   1. **Methodology Overview**

Extensive study on the asset management for IT firms using related works will be done. The design of the asset management system will be carried out using the Unified Modelling Language (UML) tools. The implementation of the system will be done using Hypertext Pre-processor (PHP) programming language, JavaScript, cascading style sheet (CSS) and My Structured Query Language (MySQL) and finally, the system will be tested using alpha and beta testing technique.

* 1. **Justification**

Study has shown that the web platform is the most widely used platform. It is expected that most IT firms can easily access web applications using their web browsers. Existing asset management systems do not have the ability to control user access to assets, track the movement of assets and also generate real-time reports.

* 1. **Organization of Thesis**

Chapter one introduces the study by explaining the key topical concepts addressed by the project. It discusses the aim of the project, the statement of problem, the objectives, and the employed methodology, the scope of the study and the justification of the project. Chapter two provides the literature review of technologies and related works to the current study exposing their features, pros and cons.

In chapter three the methodology employed in the implementation of the system is discussed. This follows the software development lifecycle (SDLC) which entails planning, analysis, design and implementation. Chapter four provides in detail, the implementation of the system in terms of the design stated in chapter three. In chapter five, the conclusion and recommendation that were noticed after the implementation of the study was discussed.