

**ONLINE HOSTEL IDENTIFICATION AND BOOKING SYSTEM
CASE STUDY: BUSITEMA UNIVERSITY NAGONGERA CAMPUS**

BY

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**A project Report submitted to DEPARTMENT COMPUTER STUDIES for study Leading
to a project in partial fulfillment of the requirements for the Degree of Bachelor of Science
Education at Busitema University**

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DECLARATION

I declare that the information presented in this project report is my own work and it has never been submitted in this or any institution of higher learning for a degree or any other academic award.

STUDENT

Signature:

Date:

WAFULA PAUL

APPROVAL

This project has never been submitted to any Higher Learning Institution for the award of a Degree and it is an original study submitted for the award of a Bachelor's Degree in Science Education with the approval of the Research Project Supervisor.

Supervisor

Mr. OBOOTH ANDREW

Signature.....

Date:

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DEDICATION

This piece of work is dedicated to those who have extended their helping hands to make me achieve this today and worked so hard and tirelessly to ensure that I attain this level of education. Among all include my beloved parents and guardians, my cooperative supervisor Mr. Oboth Andrew and other lecturers who have given me knowledge through my academic period, beloved friends from whom I have always consulted and shared productive ideas and above all to the Almighty God who has always blessed and given me wisdom.

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LIST OF ABBREVIATIONS

CSS	- Cascading Style Sheet
DFD	- Data Flow Diagram
ERD	- Entity Relationship Diagram
GB	- Giga Byte
GH	- Giga Hertz
HTML	-Hypertext Markup Language
MB	- Mega Byte
PHP	- Hypertext Processor
RAM	- Random Access Memory
ROM	- Read Only Memory
SQL	- Structured Query Language

ABSTRACT

An Online Hostel Identification and Booking System is a software application developed for managing various hostel activities such as room allocation, tracking the number of students who book for hostels displaying room information. In this project, the main object was to develop an online Hostel Identification and booking System. this system was developed to address high transport cost, over competition for rooms and time-wasting process of identifying and make booking for hostels. The method used in the development of the project was a waterfall methodology that ensured systematic and sequential flow of the system stages. The system development tools used were Dataflow Diagram, Context Diagram Entity Relationship Diagrams and a Flow Chart and the technologies used in implementation of the objectives of this study included MYSQL server database, PHP for server connections, and HTML for user interfaces. The result of the project was an Online Identification and Booking System capable of allowing students to view, select and book hostel, allow hostel administrators to register students and allocate them the hostels depending on their preferences. The application was finally run on the computer and was verified to be running sufficiently well and produced the expected results. Basing on the results produced by an Online Hostel Identification and Booking System, the researcher is very sure that once the system is adopted and put into practice, the problems that students and hostel owners are currently facing would eventually be diminished.

CHAPTER ONE

1.0 Introduction

A Hostel is a shared room accommodation that accepts individual travelers or groups of short-term stays such as students, workers and that provides common area and communal facilities (Lexico, 2022).

“It is hypothesized that there should be a more efficient way to help students find hostels more easily with the exact attributes they want. Khozaei, Ayub, Hassan Zahra (2010)

A number of years, many joining and continuing students from various regions in Uganda, and outside countries rely more on hostels as their places of residence while studying at different universities. However, students who wish to join hostels find it hard when it comes to identifying and booking a hostel/hostel room of their own preference. It is always hard and takes a lot of time for students to attain information about the various hostels such as, distance of hostels from the university facilities, the available conditions around the hostels, hostel security, room size, and safety etc.

Hostel owners on the other hand take a lot of time and find hardships when it comes to identifying the number of students to occupy their hostels.

The aim of this project therefore, is to design and develop an online Identification and Booking System that will help students easily identify hostels of their own preferences.

1.1 Background

Nagongera Campus, Faculty of Science and Education (FSE) is one of the 6 Faculties of Busitema University.

The Faculty is located at Nagongera within Nagongera Township in Tororo District. The influence of the environment and accommodation on the satisfaction level of all students has been a popular area of study and of compelling interest to Busitema University in general.

REFERENCES

- https://www.b.academia.edu/26791483/online_hostel_management_system
- <https://www.bookingninja.com/hostel-management>
- <https://smyceforge.net/projects/hostelmanagementsystemproject>.
- Segun O. Olatinwo and et al. 2014. "Development of an Automated Hostel Facility Management System". *Journal of Science and Engineering*. 5 (1): 1-10
- Bentley, W. &. (2007). *System Analysis and Design Methods*. Mexico: Boston: McGraw-Hill Irwin, ©2007.
- Kola Ayanlowo, O. S. (2014). Development of an Automated Hostel Facility Management System. *Journal of Science and Engineering*, 2-10.
- Mugisha, T. (2015, 8 2). Top ten hostels in Busitema university kikoni. Retrieved from campus eye: <https://www.campuseye.ug/top-10-hostels-in-busitema-kikoni/#>
- Muhammed Shaheer.K. A, M. S. (2009). *HOSTEL MANAGEMENT SYSTEM*.Mumbai: MUHAMMED SHAHEER.K. A, MUHAMMED SHIRAS.A, VINOD RAJ.R, PRASOBH.G.V.
- Nadia Ayub, A. S. (2010, July 2). *Asian Culture and History*. The Factors Predicting Students' Satisfaction with University Hostels, 148-158.
- Prasad, S. (2017, September 16). Student Projects. Retrieved from Student Projects Web site: <http://www.studentprojectguide.com>