AFRICA NAZARENE UNIVERSITY

IS Project Manual

GROUP 7 – THE DIVISION

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LECTURE -KENDI MUCHUNGI

REQUIREMENTS FOR THE IS MANUAL

1. Problem statement

2. Description of your project

3. Objectives of the project

4. Functional Requirements

5. Non-functional Requirements

6. Work Breakdown Structure (Specify when each aspect will be worked on - because we are handing in unique pages each week, please indicate the week a specific aspect of this work will be done)

7.System Implementation (Screenshots of the project)

8. Mockups/Wireframes

9. Viable Budget

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INTRODUCTION

1A. PROBLEM STATEMENT

Africa Nazarene University doesn't have a Hostel Allocation system, they book students into their system (Cashman, Zannar) manually. This is costly because they have to print papers to write the student name, Student ID and their room, and the student's signature to confirm they took their key. Its time consuming for both the student and the student service admin because the student can get the key to his/her room if they paid half the school fees, so the student service admin has to confirm with finance if the student paid half the school fees. The student should get a slip from finance confirming he/she paid half the school fees to get his/her room, which is time-consuming. And a mistake can be common because of human errors (I.e. writing the wrong room number for a student or misplacing the sheets for the hostels).

Other problems associated with hostel records when manually handled by hostel staffs in Africa Nazarene University include:

- Records are manually written and stored in various register
- Human errors.
- Loss or damage of any of the registers leads to damage of lots of important files at a time
- Lack of data security.
- Difficulty in maintaining or updating the records, hence, retrieval of a certain dataset from a bunch of registers is almost impossible.
- The use of numerous registers for hostel allocation can be very cumbersome, hence tracing records become tedious.

1B. THE OBJECTIVE OF STUDY (THE SOLUTION)

Our solution is to develop a system that will ease the stress associated with the existing manual system as earlier stated while focusing on Africa Nazarene University.

Our study aims to achieve the following:

- To create a database management system (DBMS) which allocates storage to student data and also provides security for the stored data.
- To provide quick and efficient means for gathering the student information along with their room, fees, etc. (I.e. The system will block the student from booking if he/she

didn't pay half a school fees, when he/she paid half or above half the school fees, the system will unblock the student).

- To find out the possible benefits that will be obtained from the new system.
- At the completion of this work, this system will improve the management of student hostel in Africa Nazarene University.

DESCRIPTION OF YOUR PROJECT

- The idea we have in mind is to develop a hostel management system more like the "Imax Century seat allocation" for Campuses, Africa Nazarene University.
- We will use tools like HTML, JavaScript, PHP, SQL, and Java.

OBJECTIVES OF THE PROJECT

- We want to achieve: - To create a database management system (DBMS) which allocates storage to student data and also provide security for the stored data and to provide quick and efficient means for gathering the student information along with their room, fees, etc. (I.e. The system will block the student from booking if he/she didn't pay half a school fees, when he/she paid half or above half the school fees, the system will unblock the student).

2. FUNCTIONAL REQUIREMENTS

In software engineering, a functional requirement defines a system or its component. It describes the functions a software must perform. A function is nothing but inputs, its behavior, and outputs. It can be a calculation, data manipulation, business process, user interaction, or any other specific functionality which defines what function a system is likely to perform.

Functional software requirements help you to capture the intended behavior of the system. This behavior may be expressed as functions, services or tasks or which system is required to perform.

EXAMPLES OF FUNCTIONAL REQUIREMENTS -

- Our system must have authorization levels.
- Transaction, corrections, adjustments, and cancellations must be easy to partake.
- The software must be prone to data manipulation.

- Data processing ought to be fast I.e. must be stable.
- The System must have an administrative level.
- The client will be served and contacted using a unique identifier I.e. Their student no. (17j01acs015). An email should be generated and sent whenever a certain condition is met e.g. A room has been booked.

HERE, ARE THE PROS/ADVANTAGES OF CREATING A TYPICAL FUNCTIONAL REQUIREMENT DOCUMENT-

- Helps you to check whether the application is providing all the functionalities that were mentioned in the functional requirement of that application
- A functional requirement document helps you to define the functionality of a system or one of its subsystems.
- Functional requirements along with requirement analysis help identify missing requirements. They help clearly define the expected system service and behavior.
- Errors caught in the Functional requirement gathering stage are the cheapest to fix.
- Support user goals, tasks, or activities for easy project management
- The functional requirement can be expressed in Use Case form or user story as they exhibit externally visible functional behavior.

3. NON-FUNCTIONAL REQUIREMENT

A non-functional requirement defines the quality attribute of a software system. They represent a set of standards used to judge the specific operation of a system. For example, how fast does the website load?

A non-functional requirement is essential to ensure the usability and effectiveness of the entire software system. Failing to meet non-functional requirements can result in systems that fail to satisfy user needs.

Non-functional Requirements allows you to impose constraints or restrictions on the design of the system across the various agile backlogs. For example, the site should load in 3 seconds when the number of simultaneous users is > 10000. The description of non-functional requirements is just as critical as a functional requirement.

EXAMPLES OF NON-FUNCTIONAL REQUIREMENT: -

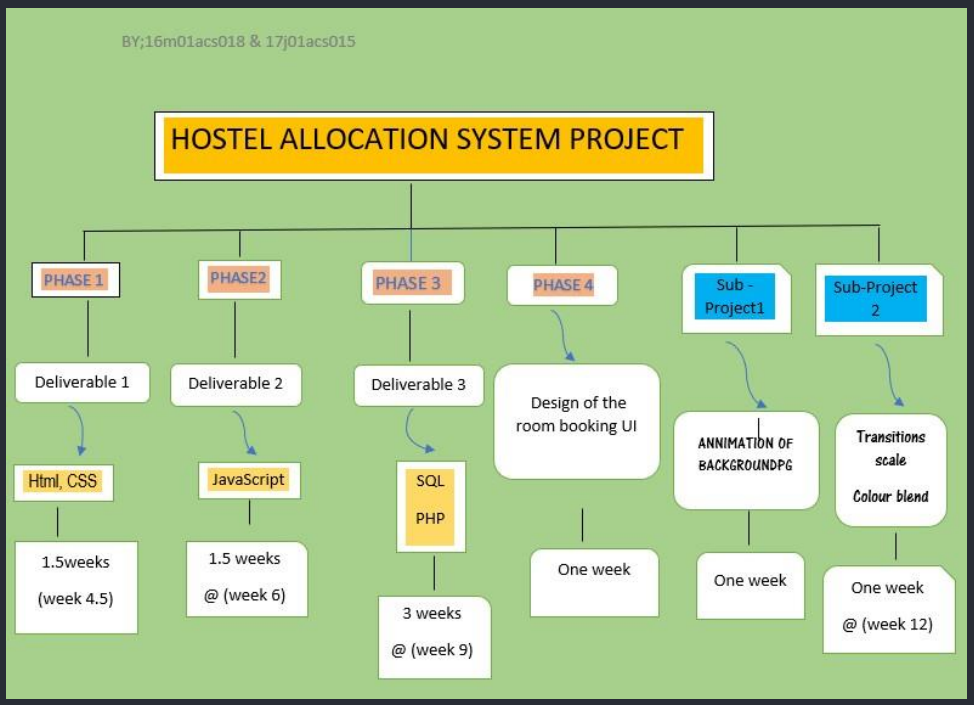
- After room booking the email should be sent within a latency of no lesser than 2 hours based on response time.
- The system must be compatible with browsers

- The software must be easy to use and be effective entirely
- Security must be reliable and top-notch.

BENEFITS/PROS OF NON-FUNCTIONAL TESTING ARE:

- The nonfunctional requirements ensure the software system follows legal and compliance rules.
- They ensure the reliability, availability, and performance of the software system
- They ensure good user experience and ease of operating the software.
- They help in formulating security policy of the software system.

4. WORK BREAKDOWN STRUCTURE



PHRASE – 1: - MAKING THE HOMEPAGE, AND THE LOGIN/REGISTER.

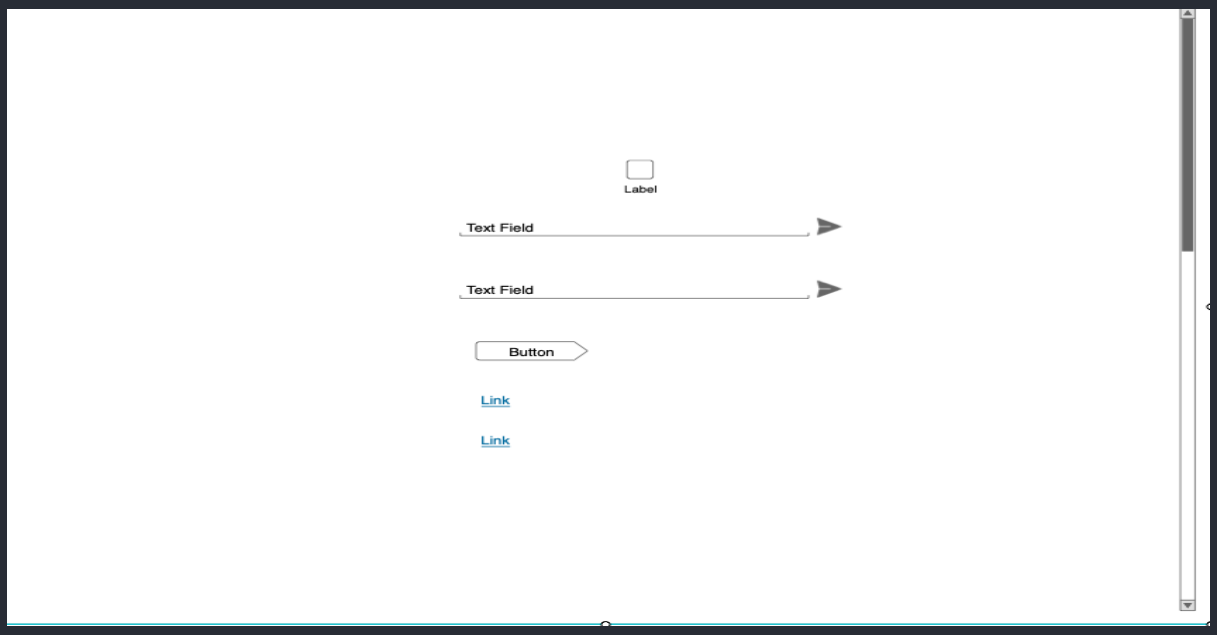
PHRASE – 2: - VALIDATION FOR THE LOGIN/REGISTER PAGE (E.G., CAN'T LEAVE NAME BLANK, PASSWORD DOESN'T MATCH).

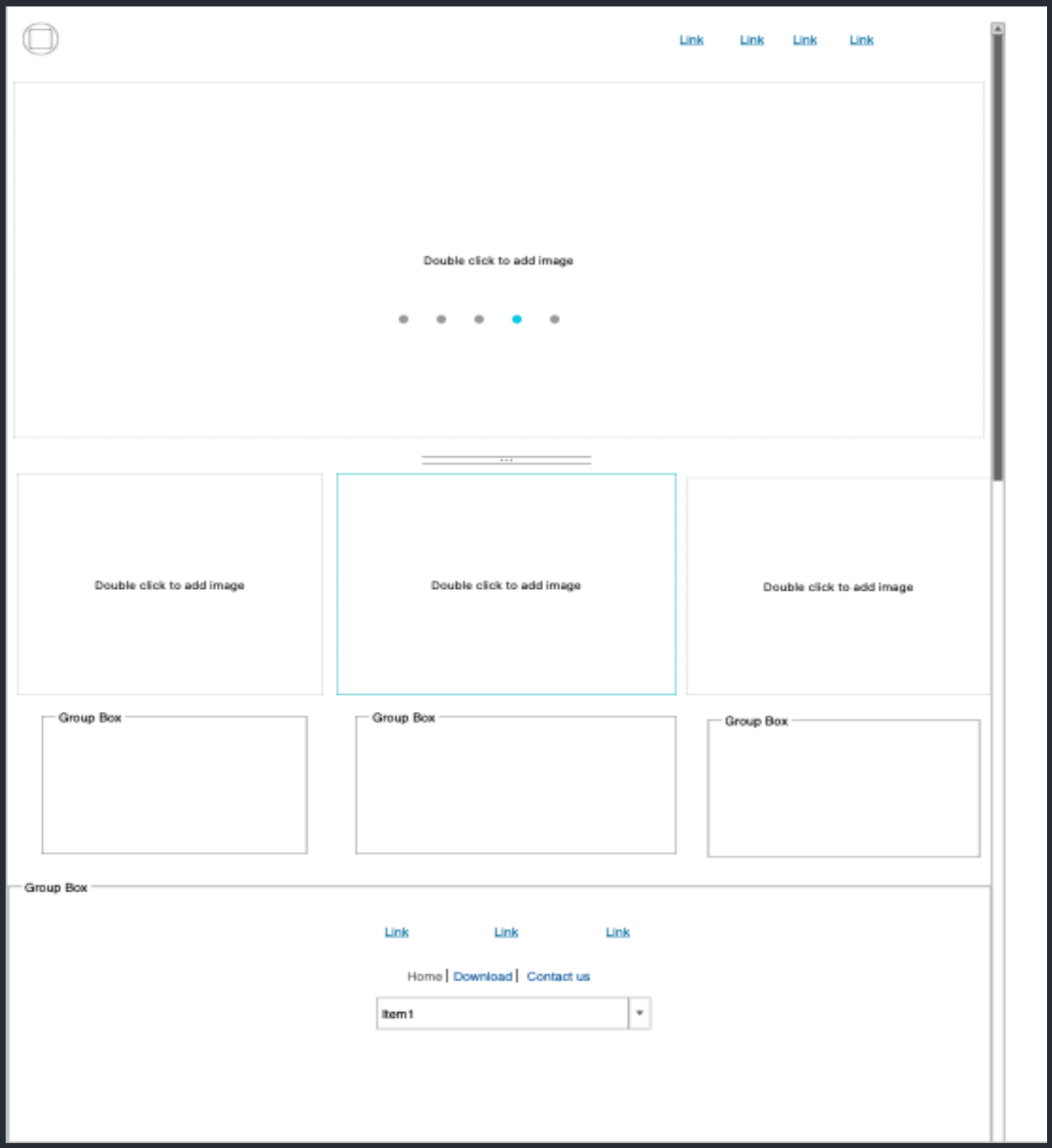
PHRASE – 3: - MAKING THE DATABASE AND MANAGING TABLES

PHRASE – 4, SUBPROJECT 1 & 2: - DESIGNING AND MAINTAING THE UI OF THE HOSTEL MANAGEMENT SYSTEM.

5. MOCKUPS/WIREFRAMES

The sketches of the intended final products are attached below

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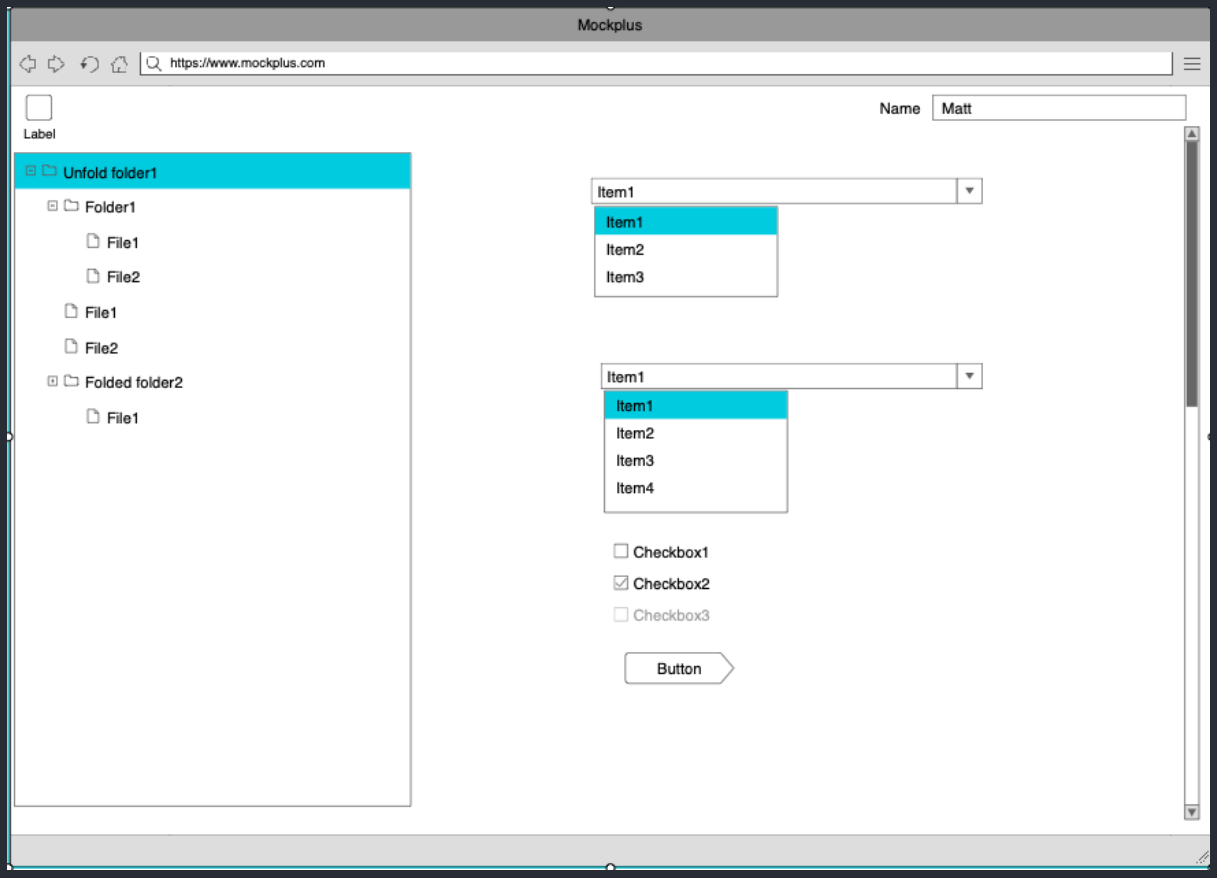
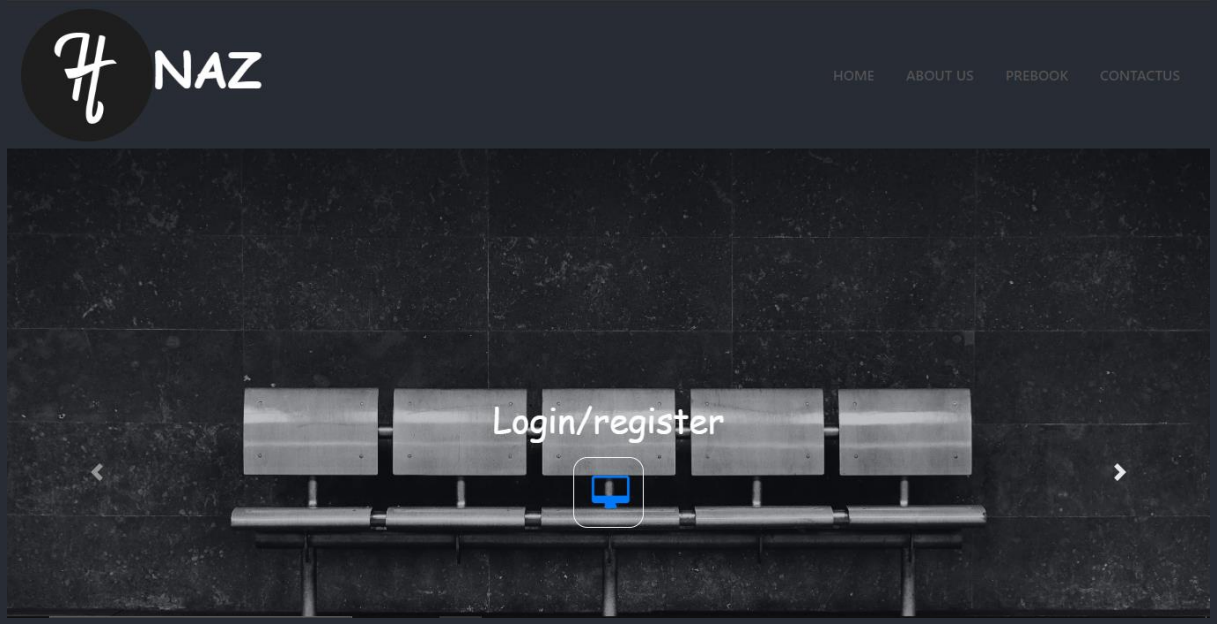
Home | Download | Contact us
Item1



6. SYSTEM IMPLEMENTATION

HOME PAGE



ACCOMODATION

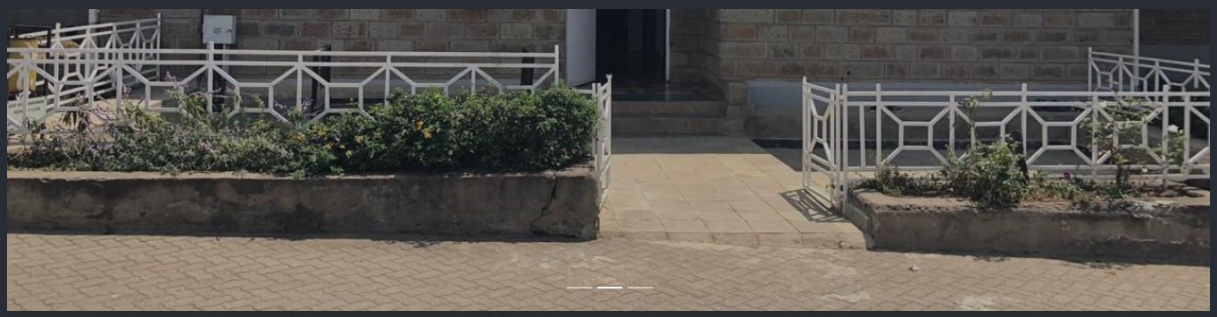
We have on campus accommodation for both men and women at the ANU Main Campus in Ongata Rongai which is located 20 KM away from the City Center in a quiet, serene setting adjacent to the Nairobi National Park. We do not discriminate against prospective and current students by reason of religion, age, gender, disability, nationality, race, color, or any other characteristic as established by the Laws of Kenya. While the default mode is shared accommodation, we have ensured that the atmosphere within the halls of residence provide a setting that facilitates, rest, study, networking and bonding.

Read more

OUR COMMUNITY



PRE-BOOKING DETAILS



PRE-BOOK DETAILS

Zannar

Room Type: III (2-3 students per room).
Fees: 16,000 KES (Special Rooms (R7 & R12) 40,000 KES).
Capacity: 17 Rooms.

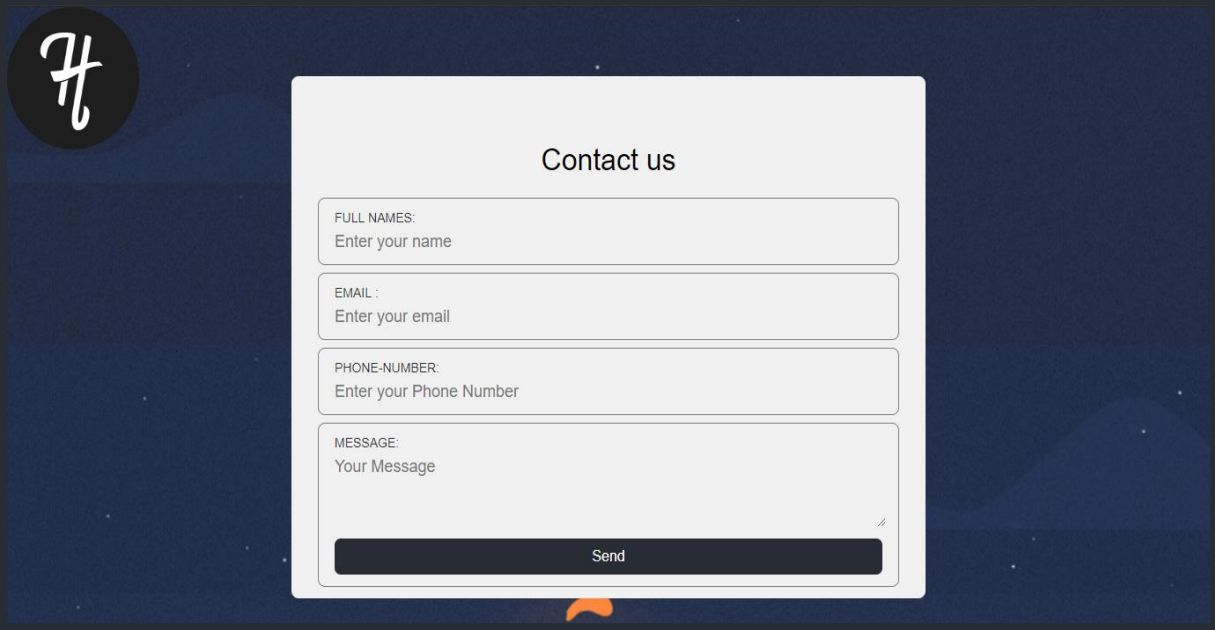
Johnson

Room Type: IV (4 students per room).
Fees: 11,000 KES.
Capacity: 17 Rooms.

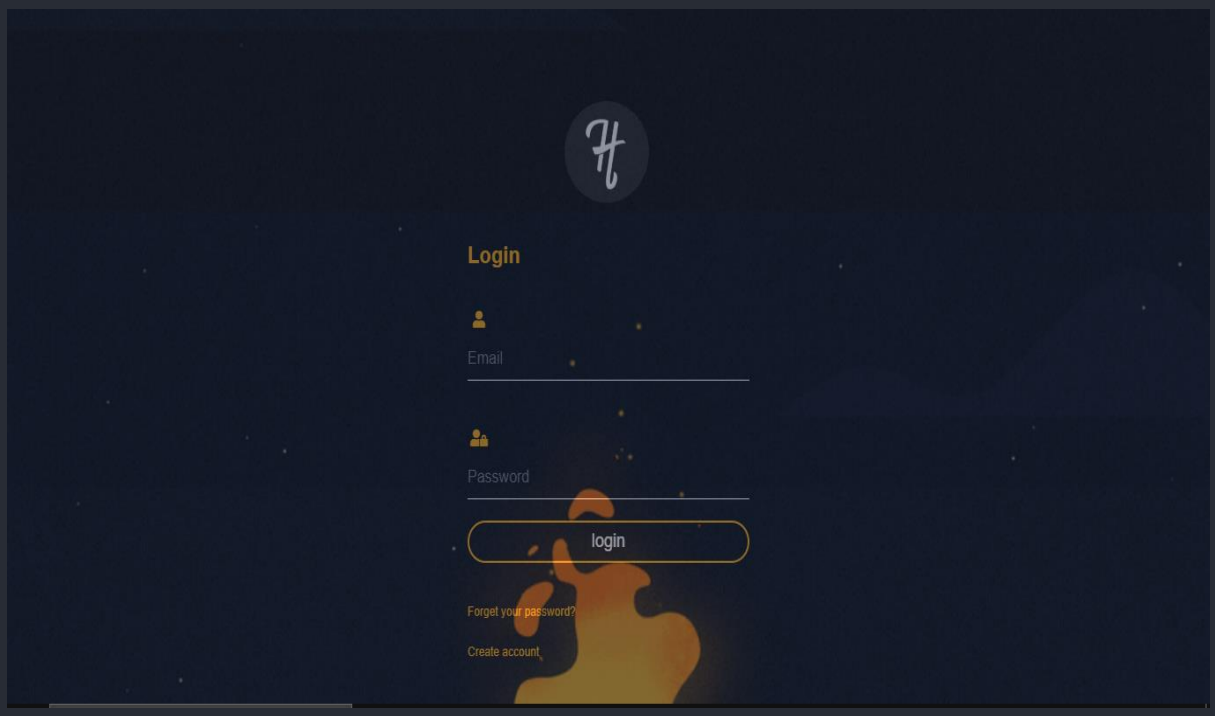
Cashman

Room Type: II(2 students per room).
Fees: 19,000 KES (Special Rooms (R5) 40,000 KES).
Capacity: 17 Rooms.

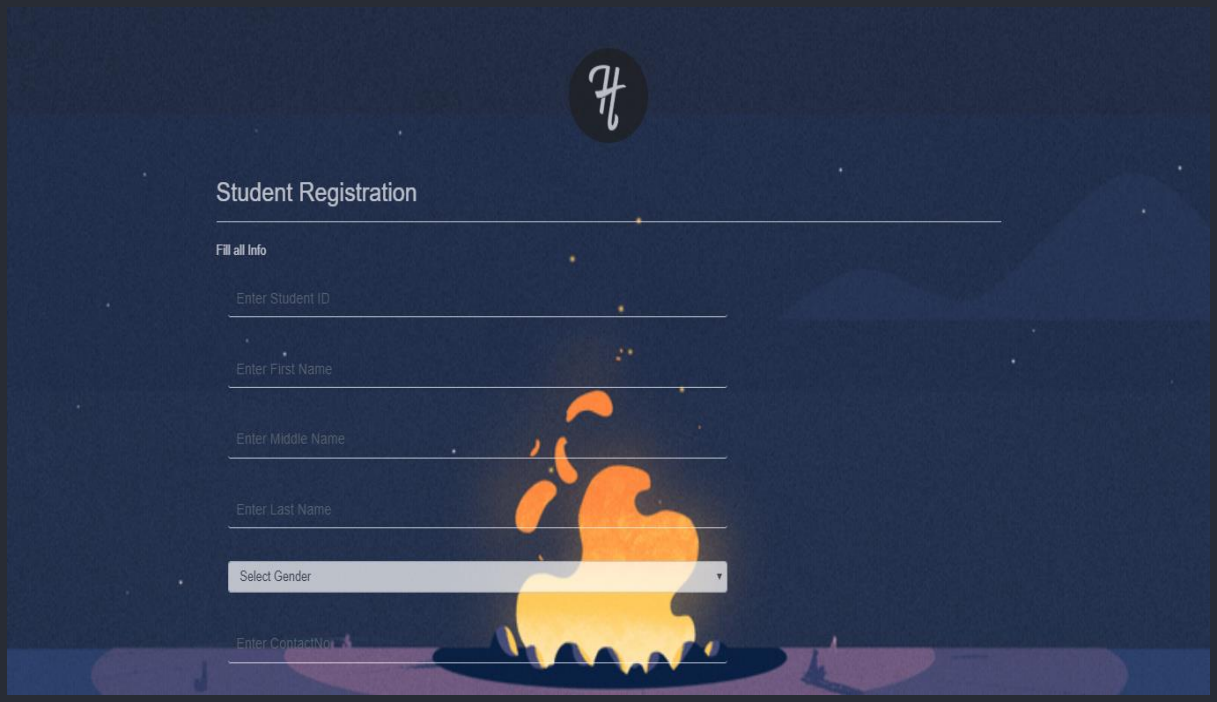
CONTACT US



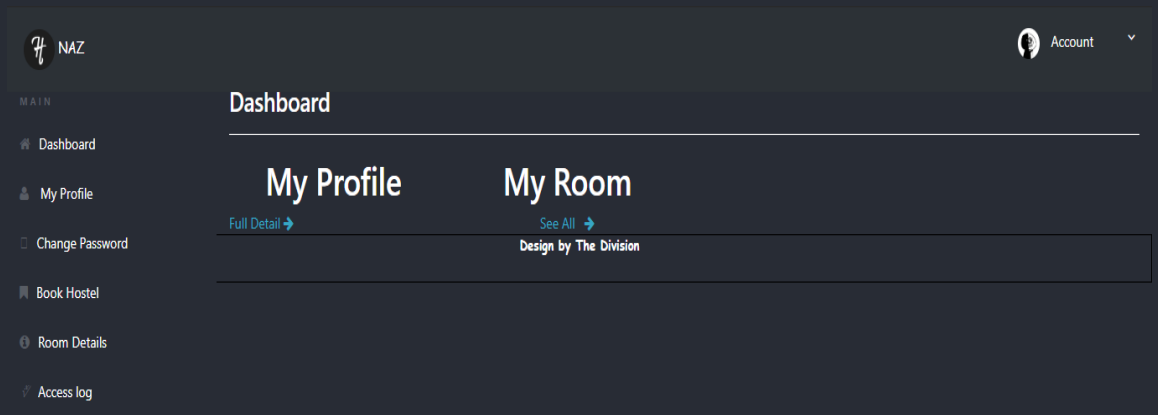
LOGIN PAGE



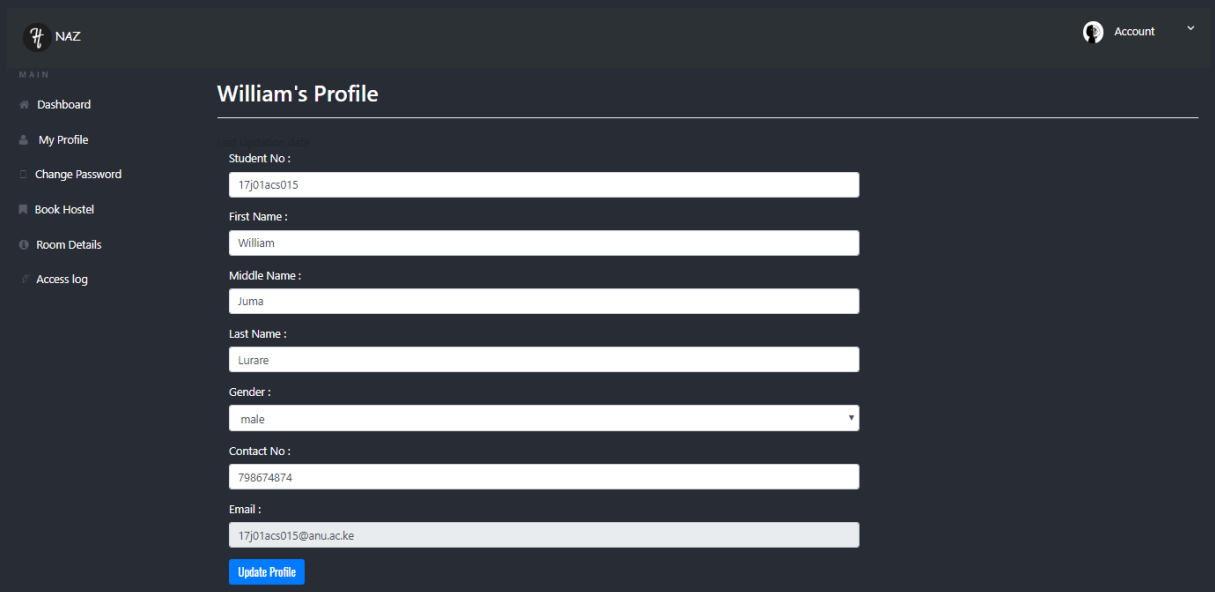
REGISTRATION PAGE



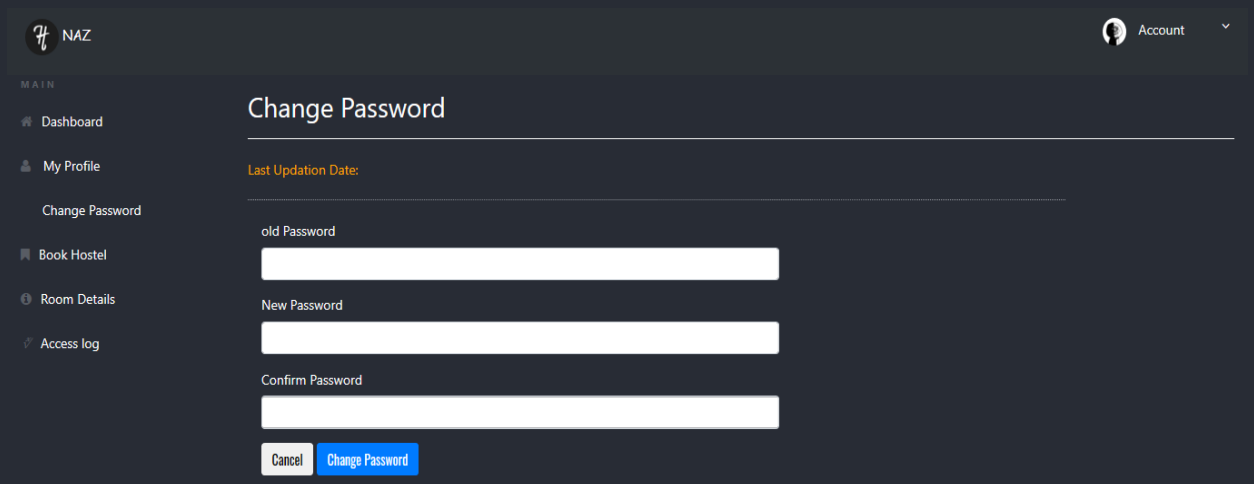
DASHBOARD



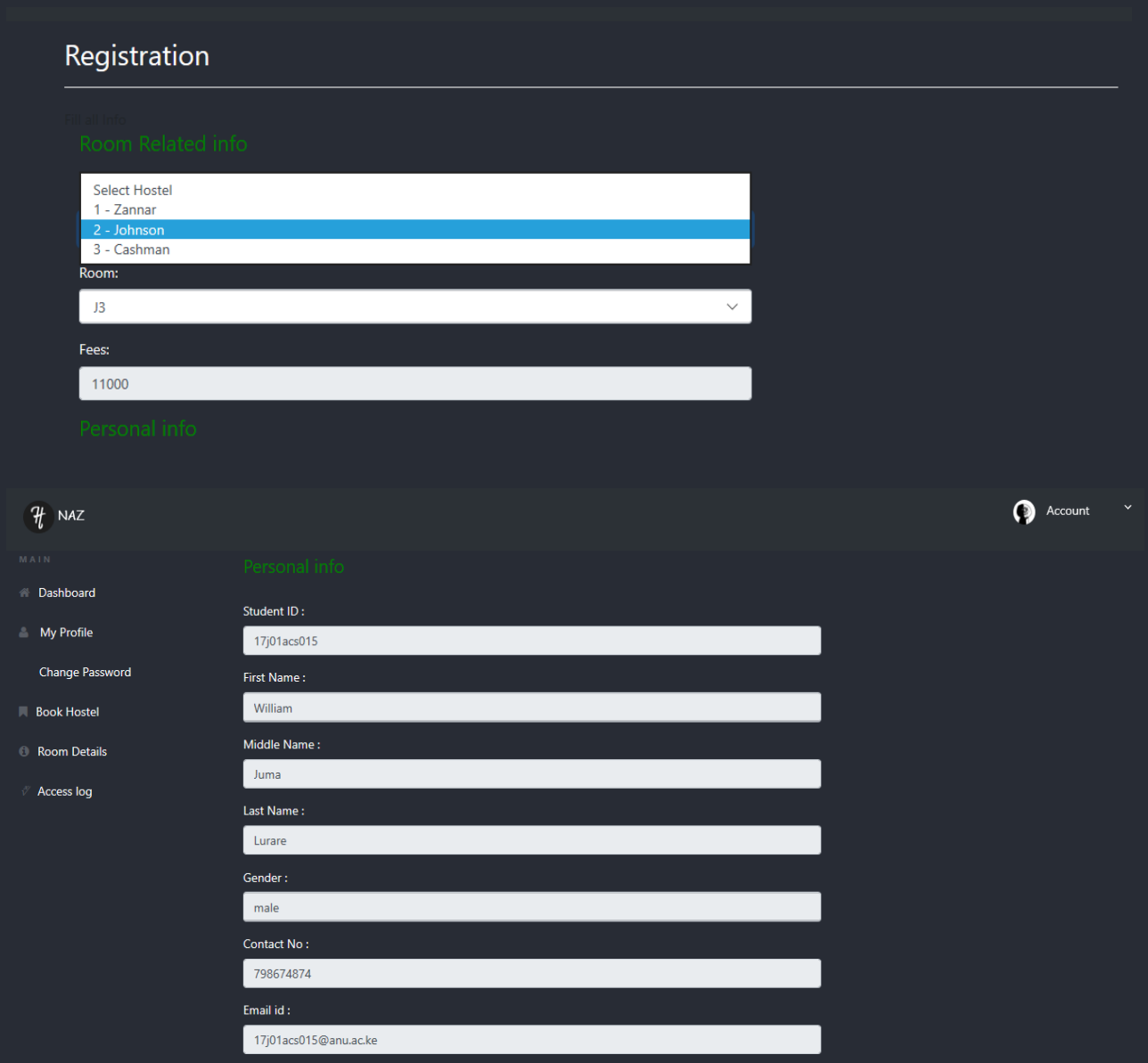
MY PROFILE PAGE



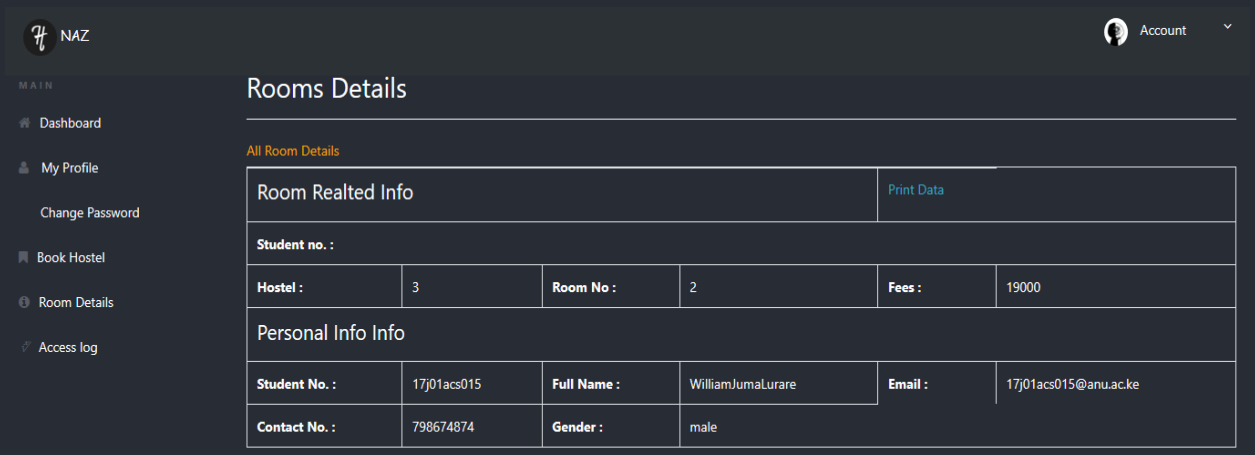
CHANGE PASSWORD



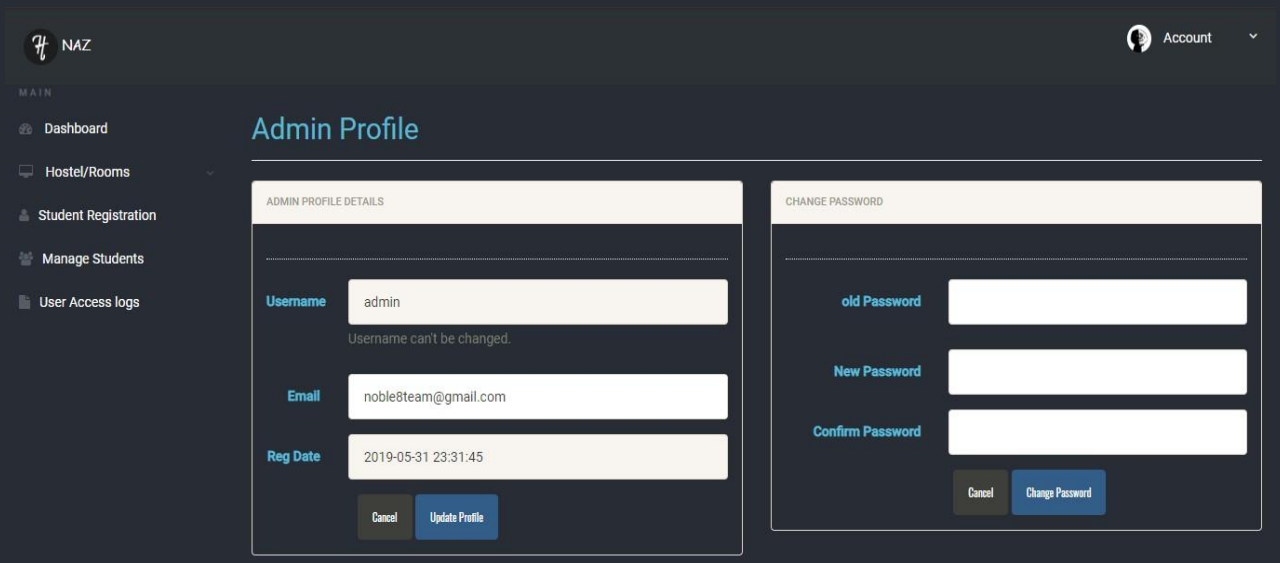
BOOKING PAGE



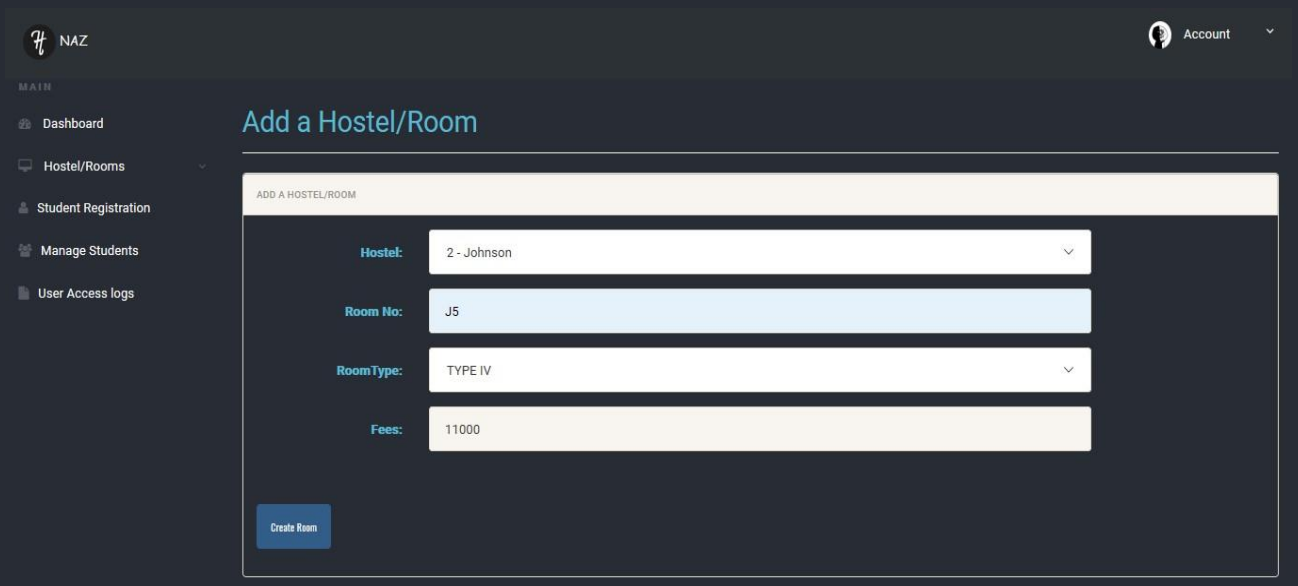
ROOM DETAILS/RECIPE PAGE



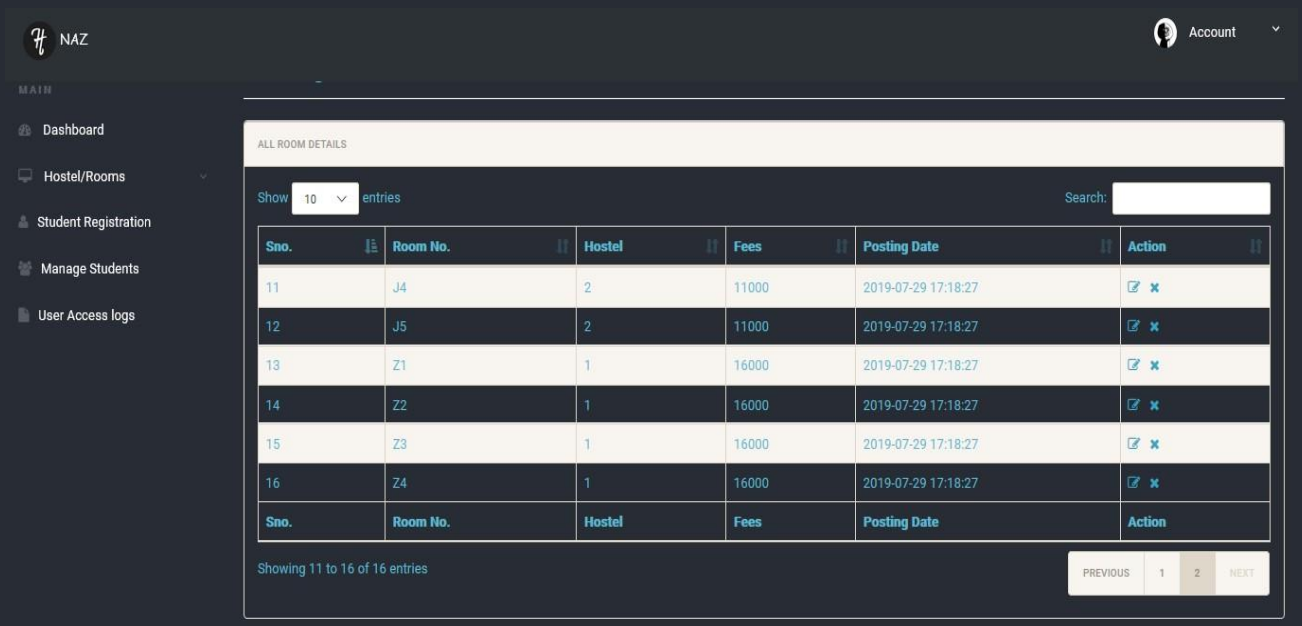
ADMIN PROFILE PAGE



ADDING/EDITING HOSTEL PAGE



ADDING/EDITING/DELETING/MANANGING HOSTEL PAGE



7. CHALLENGES AND RECOMMENDATIONS

CHALLENGES

We are very excited because we're going to share our personal experience of streamlining our IS project and what are the main Problems Faced by us in this project and how to fix them.

The challenges we faced were: -

Hostel Managing System – We found this section challenging because we want the student to have their freedom to book their hostel, and we needed more knowledge in PHP then we expected. We needed a better understanding in proper Normalisation (up to 3NF) and SQL.

Designing the UI of the Hostel Managing System & Admin System – Designing the interface of the HNAZ management system was quite challenging because we needed to learn more of the HTMLS layout (div, nav, header, footer, etc) and get a better understanding of inline and external CSS.

RECOMMENDATIONS

Our recommendations are to find out how efficient the HNAZ management will be and how it can benefit the students and the administration.

8. VIABLE BUDGET

HOSTEL ALLOCATION SYSTEM BUDGET PRICE.

This being a small sized project and based on the phases it has, the

range of total installation cost stands at **KES 30,000.**

By: -

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Josh Kamau - 16m01acs018