



AFRICA NAZARENE
UNIVERSITY

IS Project Manual

GROUP 7 – THE DIVISION

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LECTURE -KENDI MUCHUNGI

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: -

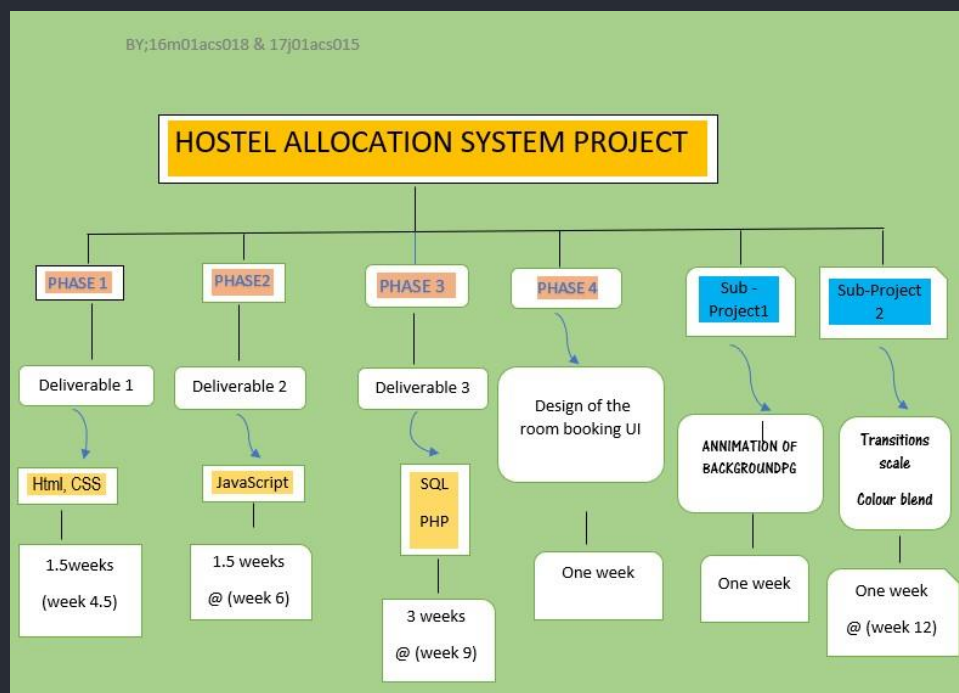
- After room booking the email should be sent within a latency of no lesser than 2 hours based on response time.
- The system must be compatible with browsers

- 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.

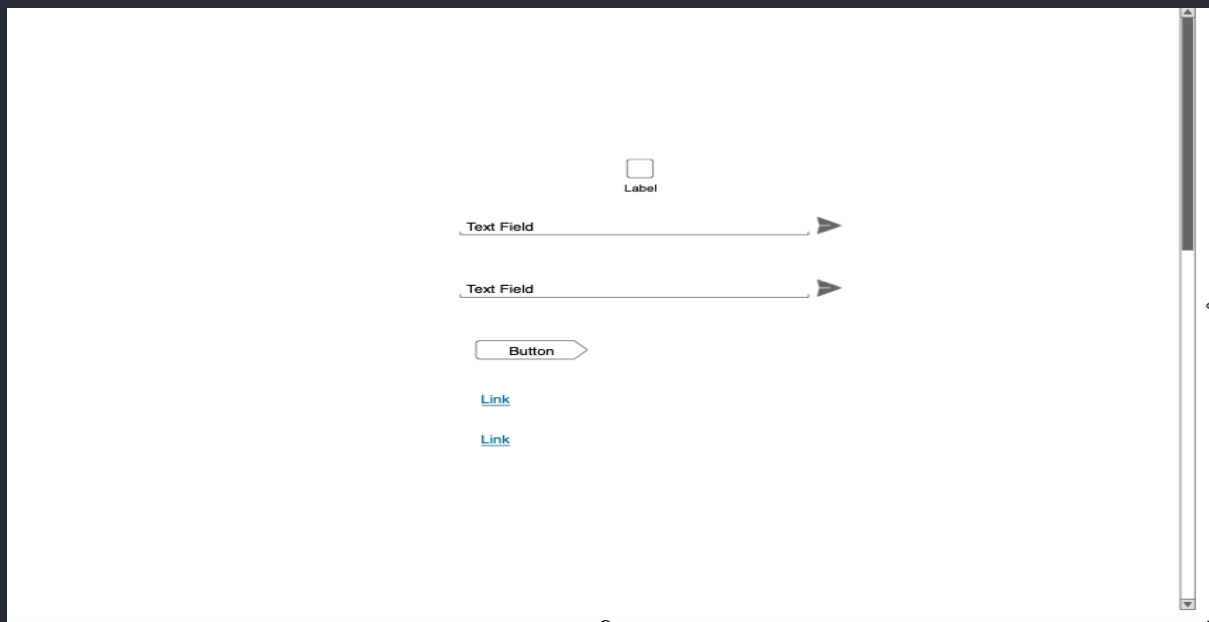
PHRASE – 2: - VALIDATION FOR THE LOGIN/REGISTER PAGE (E.G., CAN'T LEAVE NAME BLANK, PASSWORD DOESN'T MATCH).

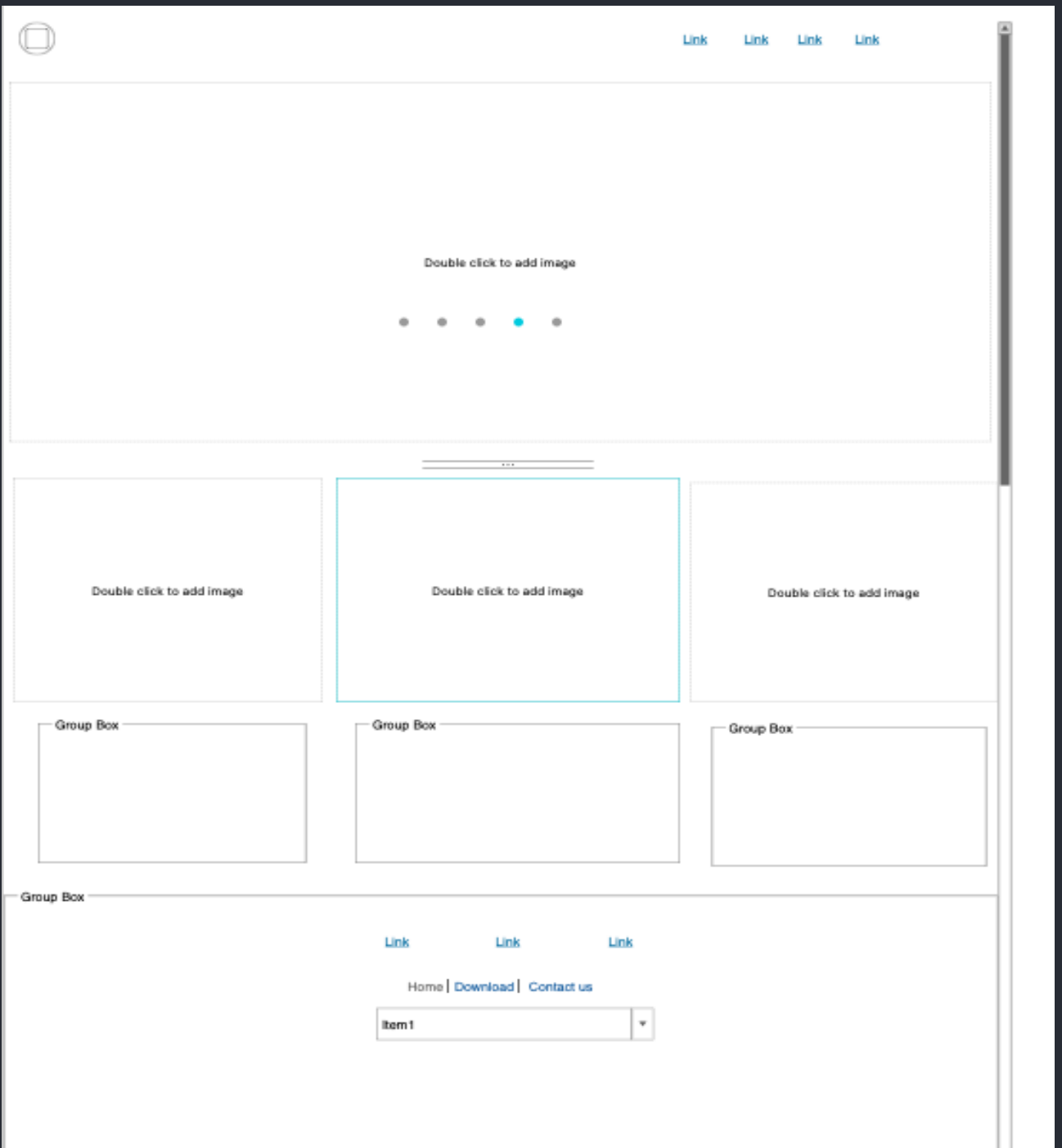
PHRASE – 3: - MAKING THE DATABASE AND MANAGING TABLES

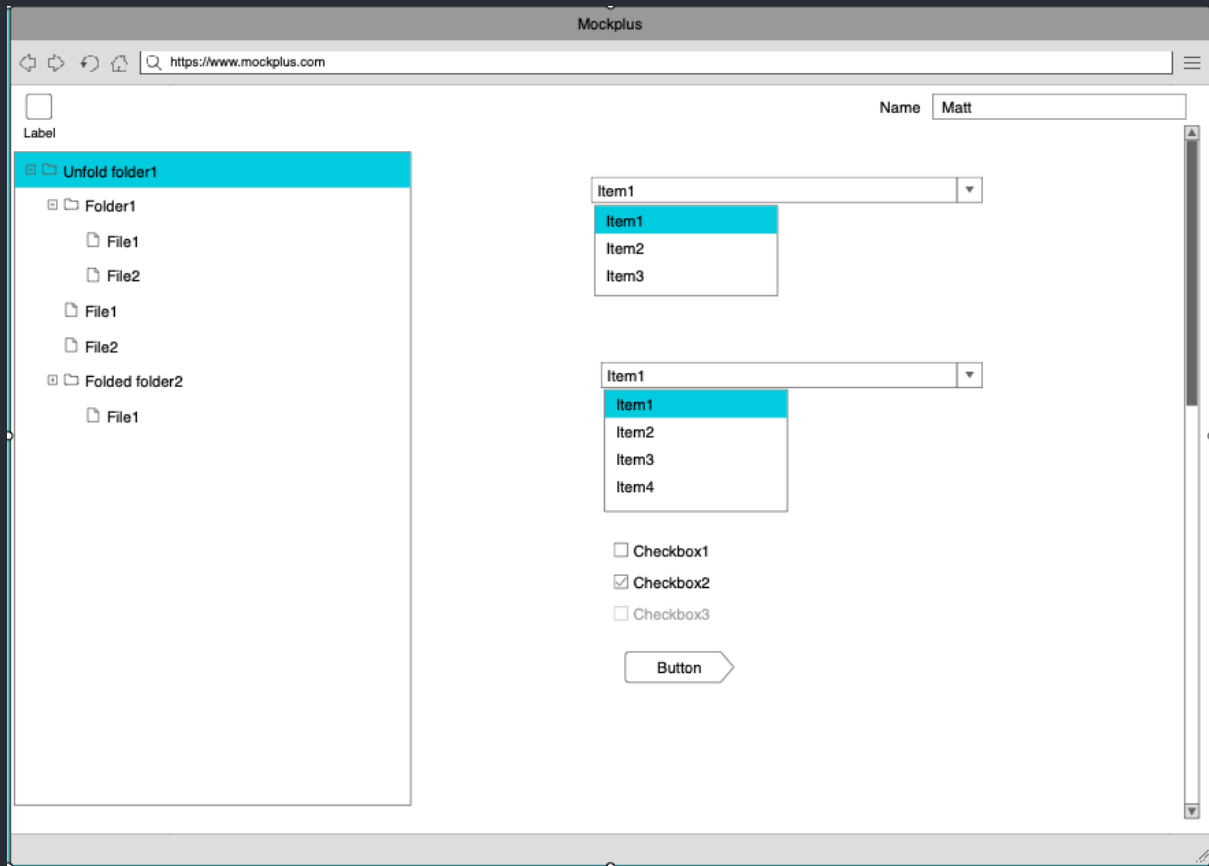
PHRASE – 4, SUBPROJECT 1 & 2: - DESIGNING AND MAINTAINING THE UI OF THE HOSTEL MANAGEMENT SYSTEM.

5. MOCKUPS/WIREFRAMES

The sketches of the intended final products are attached below

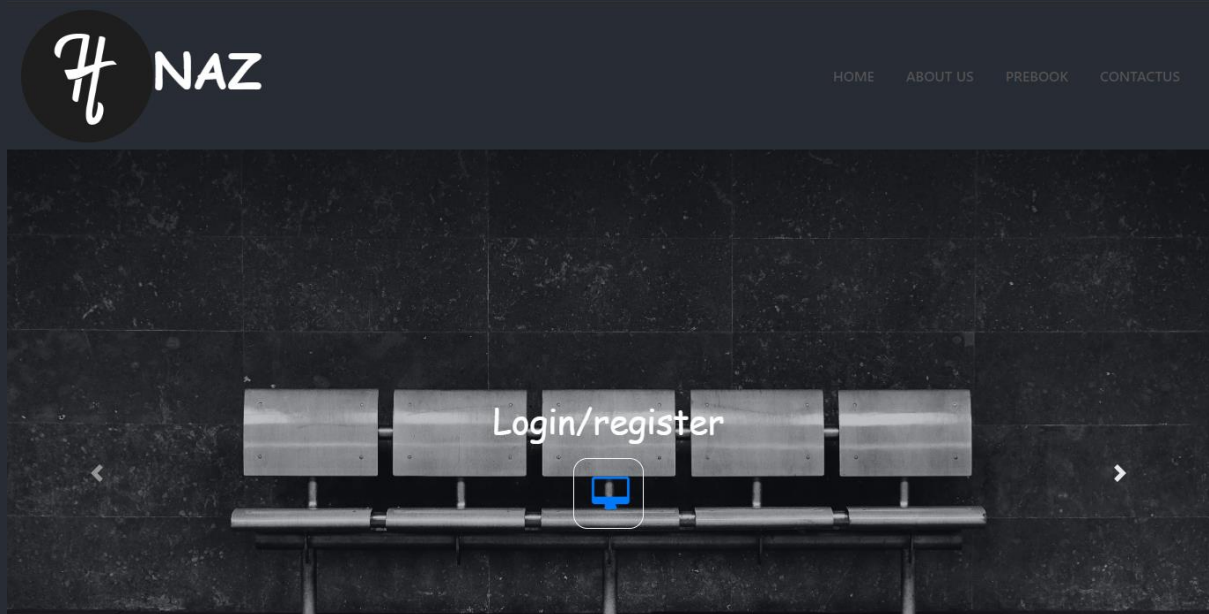






6. SYSTEM IMPLEMENTATION

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.

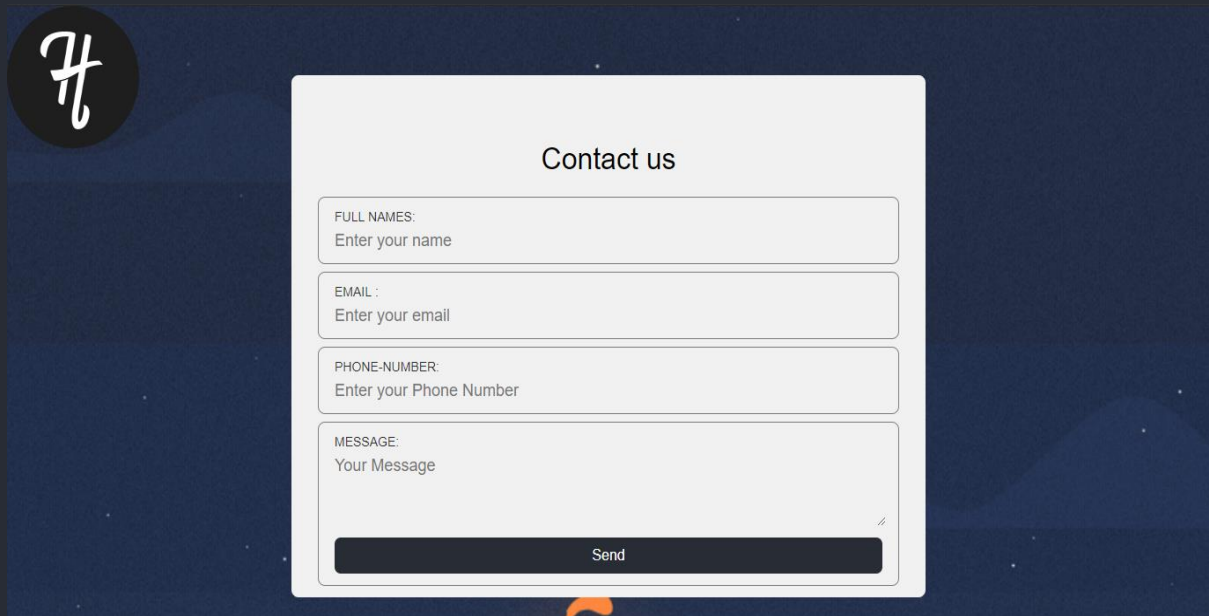
Johnson

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



The contact form is centered on a dark blue background with a subtle pattern of stars and a stylized orange shape at the bottom. In the top left corner, there is a circular logo with a white stylized 'H' on a black background. The form itself is a white rounded rectangle with a title 'Contact us' in a bold, sans-serif font. Below the title are four input fields, each with a label and a placeholder text: 'FULL NAMES: Enter your name', 'EMAIL: Enter your email', 'PHONE-NUMBER: Enter your Phone Number', and 'MESSAGE: Your Message'. At the bottom of the form is a dark grey 'Send' button.

Contact us

FULL NAMES:
Enter your name

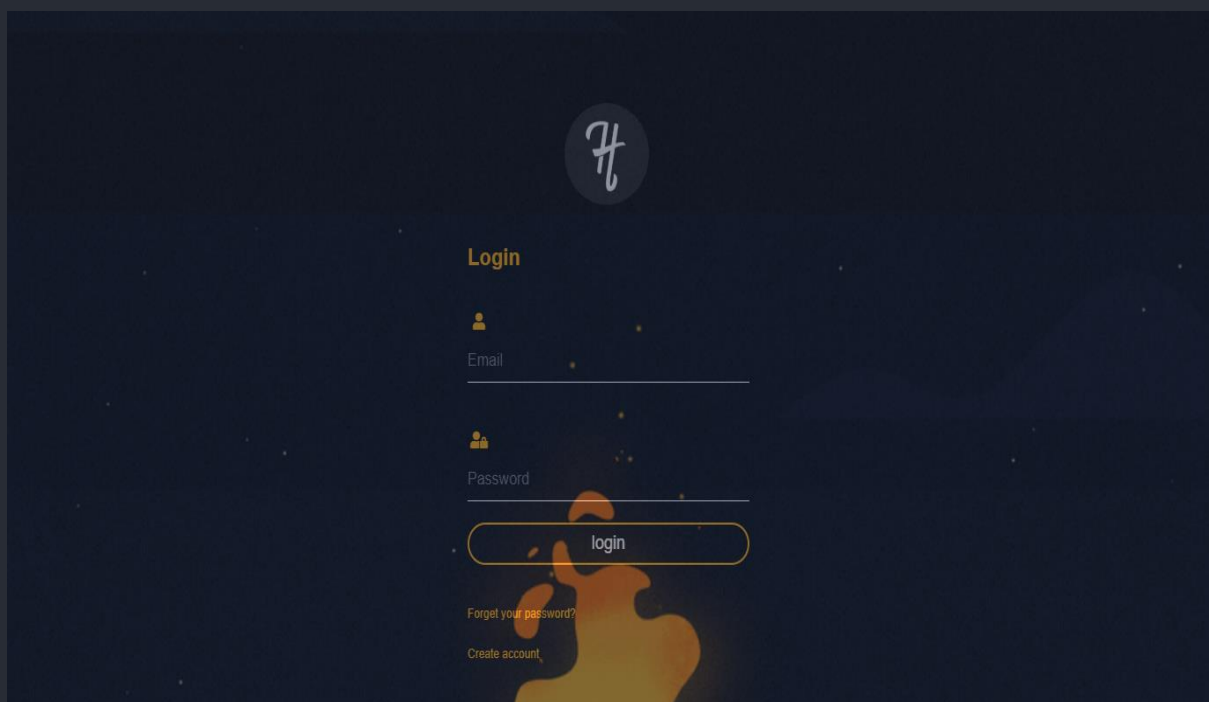
EMAIL :
Enter your email

PHONE-NUMBER:
Enter your Phone Number

MESSAGE:
Your Message

Send

LOGIN PAGE



The login page features a dark blue background with a subtle pattern of stars and a stylized orange shape at the bottom. In the top center, there is a circular logo with a white stylized 'H' on a black background. Below the logo, the word 'Login' is written in a bold, sans-serif font. Underneath 'Login' are two input fields, each with a label and a placeholder text: 'Email' and 'Password'. Below the password field is a rounded 'login' button. At the bottom of the form are two links: 'Forget your password?' and 'Create account'.

Login

Email

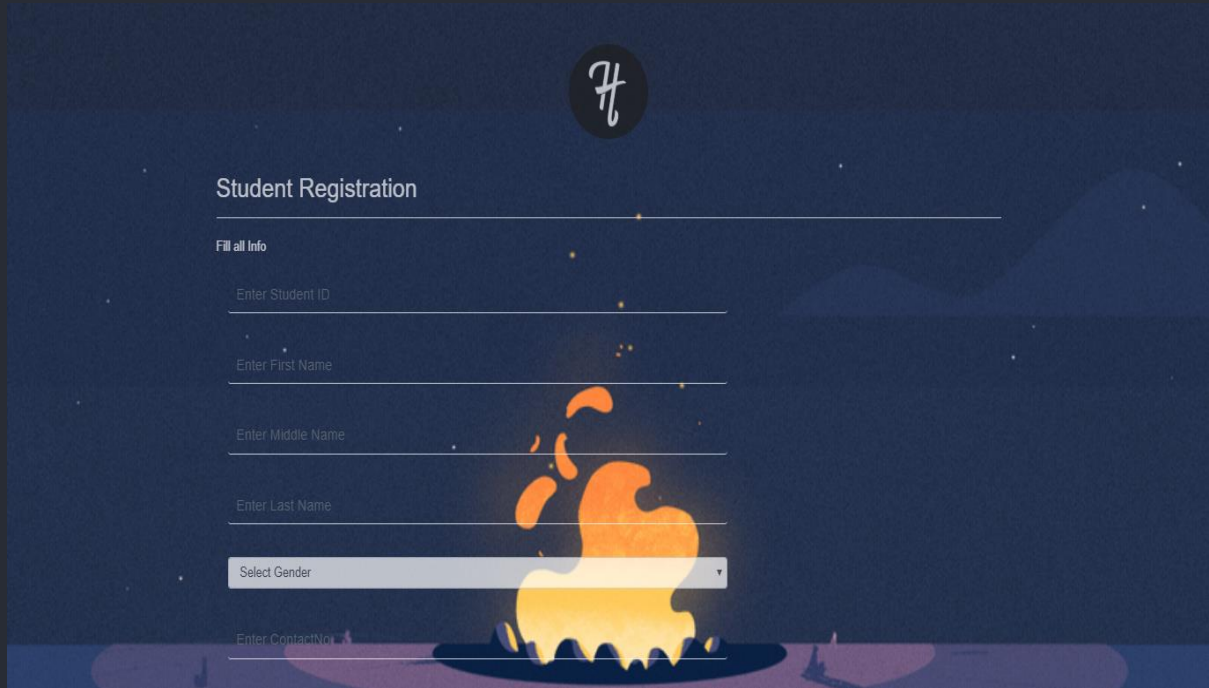
Password

login

[Forget your password?](#)

[Create account](#)

REGISTRATION PAGE



The registration form is set against a dark blue background with a subtle illustration of a campfire and mountains. At the top center is a circular logo with a stylized 'H'.

Student Registration

Fill all Info

Enter Student ID

Enter First Name


Enter Middle Name

Enter Last Name

Select Gender

Enter Contact No

DASHBOARD

 NAZ

Account ▾

MAIN

Dashboard

My Profile

Full Detail →

My Room

See All →

Design by The Division

Dashboard

My Profile

Change Password

Book Hostel

Room Details

Access log

MY PROFILE PAGE

NAZ

Account

MAIN

Dashboard

My Profile

Change Password

Book Hostel

Room Details

Access log

William's Profile

Student No :

17j01acs015

First Name :

William

Middle Name :

Juma

Last Name :

Lurare

Gender :

male

Contact No :

798674874

Email :

17j01acs015@anu.ac.ke

Update Profile

CHANGE PASSWORD

NAZ

Account

MAIN

Dashboard

My Profile

Change Password

Book Hostel

Room Details

Access log

Change Password

Last Updation Date:

old Password

New Password

Confirm Password

Cancel

Change Password

Registration

Fill all info

Room Related info

Select Hostel
1 - Zannar
2 - Johnson
3 - Cashman


Room:

J3

Fees:

11000

Personal info

 NAZ

Account

MAIN

- Dashboard
- My Profile
- Change Password
- Book Hostel
- Room Details
- Access log

Personal info

Student ID :

17j01acs015

First Name :

William

Middle Name :

Juma

Last Name :

Lurare

Gender :

male

Contact No :

798674874

Email id :

17j01acs015@anu.ac.ke

ROOM DETAILS/RECIPE PAGE

NAZ

Account

MAIN

Dashboard

My Profile

Change Password

Book Hostel

Room Details

Access log

Rooms Details

All Room Details

Room Realtd Info				Print Data	
Student no. :					
Hostel :	3	Room No :	2	Fees :	19000
Personal Info Info					
Student No. :	17j01acs015	Full Name :	WilliamJumaLurare	Email :	17j01acs015@anu.acke
Contact No. :	798674874	Gender :	male		

ADMIN PROFILE PAGE

NAZ

Account

MAIN

Dashboard

Hostel/Rooms

Student Registration

Manage Students

User Access logs

Admin Profile

ADMIN PROFILE DETAILS

Username

admin

Username can't be changed.

Email

noble8team@gmail.com

Reg Date

2019-05-31 23:31:45

Cancel

Update Profile

CHANGE PASSWORD

old Password

New Password

Confirm Password

Cancel

Change Password

ADDING/EDITING HOSTEL PAGE

NAZ

Account

MAIN

Dashboard

Hostel/Rooms

Student Registration

Manage Students

User Access logs

Add a Hostel/Room

ADD A HOSTEL/ROOM

Hostel:

2 - Johnson

Room No:

J5

RoomType:

TYPE IV

Fees:

11000

Create Room

ADDING/EDITING/DELETING/MANANGING HOSTEL PAGE

NAZ

Account

MAIN

Dashboard

Hostel/Rooms

Student Registration

Manage Students

User Access logs

ALL ROOM DETAILS

Show 10 entries Search:

Sno.	Room No.	Hostel	Fees	Posting Date	Action
11	J4	2	11000	2019-07-29 17:18:27	Edit Delete
12	J5	2	11000	2019-07-29 17:18:27	Edit Delete
13	Z1	1	16000	2019-07-29 17:18:27	Edit Delete
14	Z2	1	16000	2019-07-29 17:18:27	Edit Delete
15	Z3	1	16000	2019-07-29 17:18:27	Edit Delete
16	Z4	1	16000	2019-07-29 17:18:27	Edit Delete
Sno.	Room No.	Hostel	Fees	Posting Date	Action

Showing 11 to 16 of 16 entries

PREVIOUS

1

2

NEXT

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 than 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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