GHANA COMMUNICATION
TECHNOLOGY UNIVERSITY

INSTITUTE OF CONTINUING
AND DISTANCE EDUCATION (ICDE)

COURSE CODE	CIIS 152
COURSE TITLE	Introduction to Information Systems
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GROUP NAME	GROUP 13

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HOSTELLY –

A HOSTEL BOOKING

PLATFORM FOR STUDENTS

Hostelly is a simple, self-served, web-app information platform that allows students to easily discover, book, and pay for hostel rooms online.

Target Users

- **Students:** Able to search, book, and pay for hostel accommodation
- **Hostel Managers:** Able to list and manage hostel rooms
- **Admins:** Able to oversee the platform and resolve disputes.

Core Value

To save time, reduce double-bookings, and increase bookings for hostels by having a professional online presence.

System Purpose

The Hostelly System aims to solve the problem of time-consuming, manual, and stressful hostel searches. The current problems are:

- Students travel long distances to find a hostel to find a hostel
- Lack of reliable information about available rooms.
- Manual booking processes leading to double-bookings.

Solution

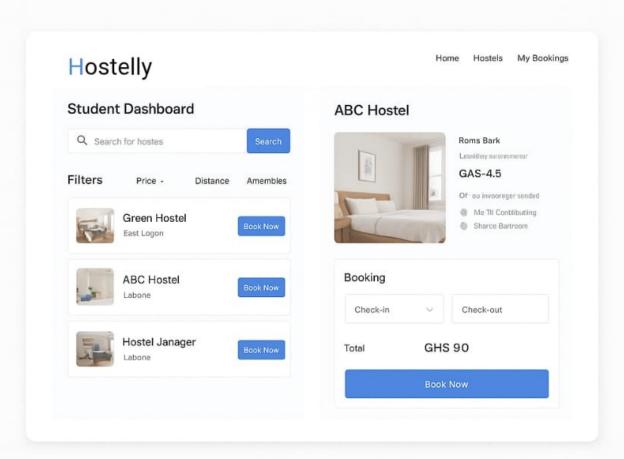A centralized easy-to-use platform where;

students will be able to:

- Search for hostels by location, price, and amenities.
- View photos and details of available rooms
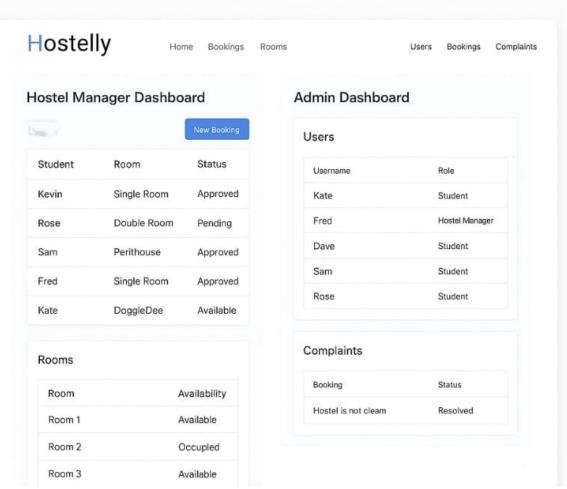- Reserve and pay for rooms online.

Hostel managers will be able to:

- Easily list and update room availability.
- Track bookings and payments.

UI Mock-Ups

Student Dashboard	Hostel Detail Page	Manager Dashboard	Admin Dashboard
Search bar for hostels	Photos of rooms	View all their bookings	Manage users (students and hostel managers)
Filter by price, distance, amenities	Room descriptions	Update room availability	View system analytics
Ability to manage their bookings plus a return policy.	Room prize, size, amenities	Approve or decline bookings	Handle complaints
	Booking form with available dates.	Ability to mark a room as "Under maintenance"	

Hostelly

Student Dashboard

🔍 Search for hostes   [Search]

Filters   Price -   Distance   Amembles

| | Green Hostel | [Book Now] |
| East Logon | |

| ABC Hostel | [Book Now] |
| Labone | |

| Hostel Janager | [Book Now] |
| Labone | |

ABC Hostel

Roms Bark

Leonlthey asroresmertor

GAS-4.5

Of· ou invooreger sended

○ Me Tll Contilbutiing
○ Sharce Bartroom

Booking

| Check-in ⌄ | Check-out |

Total   **GHS 90**

[Book Now]

Hostelly

Hostel Manager Dashboard

[New Booking]

Student	Room	Status
Kevin	Single Room	Approved
Rose	Double Room	Pending
Sam	Perithouse	Approved
Fred	Single Room	Approved
Kate	DoggleDee	Available

Rooms

Room	Availability
Room 1	Available
Room 2	Occupled
Room 3	Available

Admin Dashboard

Users

Username	Role
Kate	Student
Fred	Hostel Manager
Dave	Student
Sam	Student
Rose	Student

Complaints

Booking	Status
Hostel is not cleam	Resolved

Data Flow Description

Student Registrations

Student enters their details => Data saved in the database =>
Confirmation email sent.

Hostel Search

Student searches by filters => System retrieves matching
hostels form database => Displays results.

Booking Process

Student selects a hostel => Fills booking form => Payment
processed => Booking saved.

Hostel Manager Update

Manager updates room availability => System updates database
=> Students see real-time availability.

Admin Oversight

Admin monitor bookings and complaints => Can take corrective
actions.

Technologies

Component	Technology
Frontend	SvelteKit, HTML5, CSS, Javascript
Backend	Node.js (Hono), TypeScript
Database	PostgreSQL, SQLite, Drizzle ORM
Authentication and Authorization	BetterAuth, JWT,
UI Design	Figma
Deployment	Cloudflare (Workers and Pages)
Payment	Paystack Ghana

Development Approach: Agile

This ensures features can be delivered in sprints, starting with a basic booking system and later adding advanced features like payments and analytics. And also, the project will benefit from iterative development since requirements may evolve based on feedback from students and hostel managers.

Experience Building the System

Challenges:

- Integrating a smooth payment gateway

- Managing real-time room availability

- Designing an intuitive and simple UI

Lessons Learned:

- Importance of clear communication between team members.

- Agile methodology helped us adapt quickly when requirements changed.

- Planning database and structure schema early saved a lot of rework later.

Team Collaboration:

- Used GitHub for version control and CI/CD pipelines.

- Held weekly stand-up meetings to track progress.