





01



Problem Statement

- 
- An user Interactive Platform has to be built for booking rooms in Guest Houses available at Indian Institute of Technology Kharagpur.
 - The Platform Should provide all the major functionalities which will automate and ease the process of booking and managing the guest house for both customers and staff.

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- 
- Online booking software allows guest houses to take bookings 24/7, which increases revenue of the owner. Also guests can easily book their stay without having to call or email the guest house.
 - Guests can easily view availability, room types and prices this makes easier for them to make informed decisions about their stay
 - This will automate administrative tasks such as sending confirmation mails, cancellation mails and updating availability calendars.



02

Salient Features

What Admin can do?

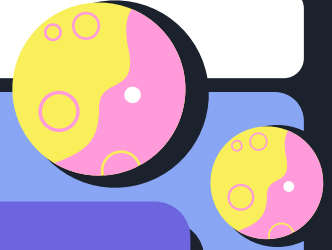
Authorize Users

Checking
Availability of
rooms

Admin

View all the Bookings

View Profile



What user can do?

Registration

User

Book a room
with food and
amenities

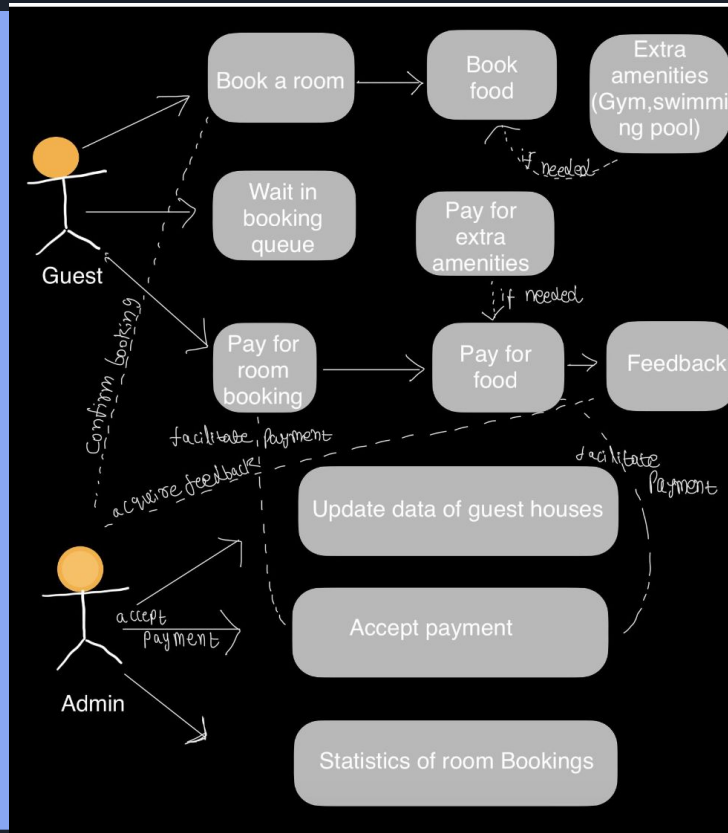
Payment

Feedback

Cancellation



Use case Diagram





- By entering correct username and password both guests and admins can have access to the website.

The screenshot displays a web browser window with the address bar showing '127.0.0.1:5000'. The website is titled 'Kharagpur Guest House Booking' and features a navigation menu with links for Home, About, Contact Us, Login, and Register. The main content area is divided into two sections: 'Sign in' and 'Welcome!'. The 'Sign in' section contains a form with fields for 'UserName' and 'Password', and a 'Sign In' button. The 'Welcome!' section includes the text 'Create an account and book your room !' and a 'SIGN UP' button.



Registration page

- Registration form where new user or admin need to enter the personal details

Ragpur Guest House Booking

Home About Login Register

Registration

Username

Password

Email

First Name Last Name

Age Select gender : Male

Address Line 1

Address Line 2

City State

your id (User/admin)

Upload your image

No file chosen

Select role : Admin

Otp Verification page

- OTP verification confirms the identity of the user and verifies the user email address for registration and payment



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to ▾

Enter the otp for verification
otp : 2437

Kharagpur Guest House Booking



[Home](#) [About](#) [Login](#) [Register](#)

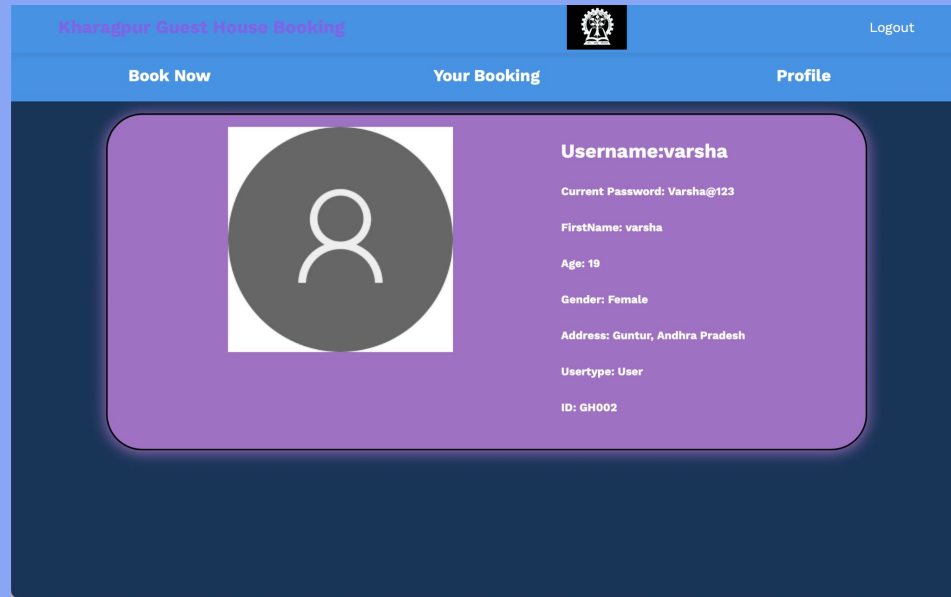
Registration

Submit



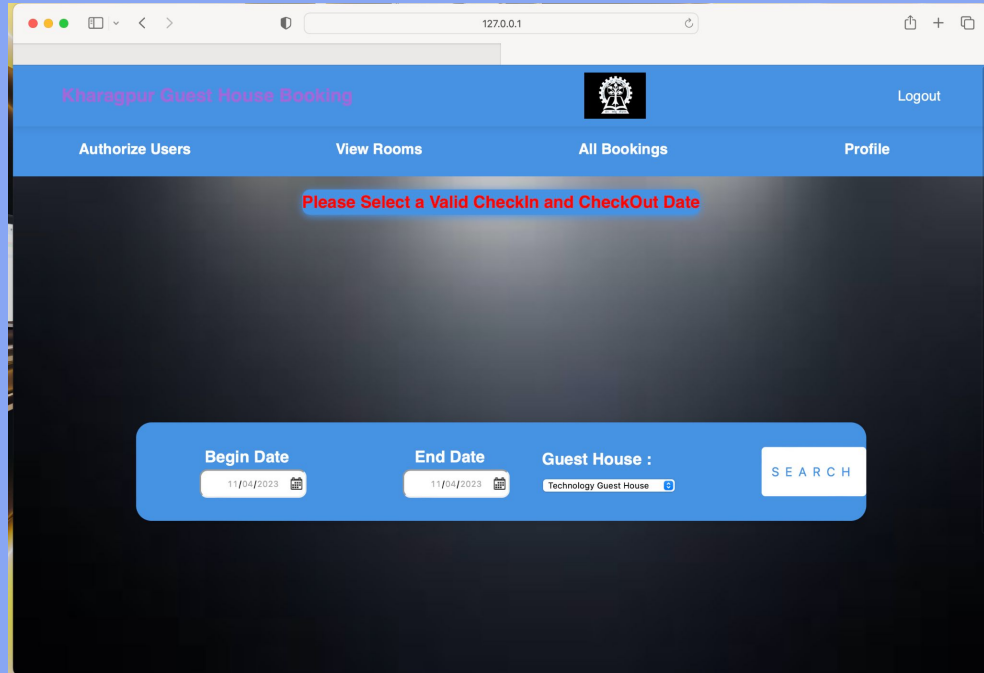
Profile page

- This Page Provides all user details.





- By selecting valid check-in date and checkout date , users can view the availability of rooms .



Room Availability Page

- Showing the availability of different types of rooms, food and amenities available in a particular guest house.

The screenshot displays the 'Kharagpur Guest House Booking' website. The header includes the site name and a logo, with 'Back' and 'Logout' links on the right. The main content is divided into three sections: 'Food Options', 'D/B AC Rooms', and 'D/B NON AC Rooms'. The 'Food Options' section lists five choices: 'None', 'NorthIndian-Veg->200/-', 'NorthIndian-Nonveg->300/-', 'SouthIndian-Veg->250/-', and 'SouthIndian-Nonveg->350/-', each with a radio button. The 'D/B AC Rooms' section shows a room image, the title 'D/B AC Rooms', 'Double Bed' type, and an availability calendar for dates 9 to 15. Below this, it specifies 'AC', '2' people, and a price of '1000/-', with a 'BOOK NOW' button. The 'D/B NON AC Rooms' section follows a similar layout with 'NON AC', '2' people, and a price of '800/-'. A third section for 'Suite Rooms' is partially visible at the bottom, showing 'Single Bed' and an availability calendar.

Kharagpur Guest House Booking

Back Logout

Food Options

☐ None

☐ NorthIndian-Veg->200/-

☐ NorthIndian-Nonveg->300/-

☐ SouthIndian-Veg->250/-

☐ SouthIndian-Nonveg->350/-

☐ Chinese->300/-

D/B AC Rooms

Double Bed

Availability: 9 10 11 12 13 14 15

AC 2 1000/- BOOK NOW

D/B NON AC Rooms

Double Bed

Availability: 9 10 11 12 13 14 15

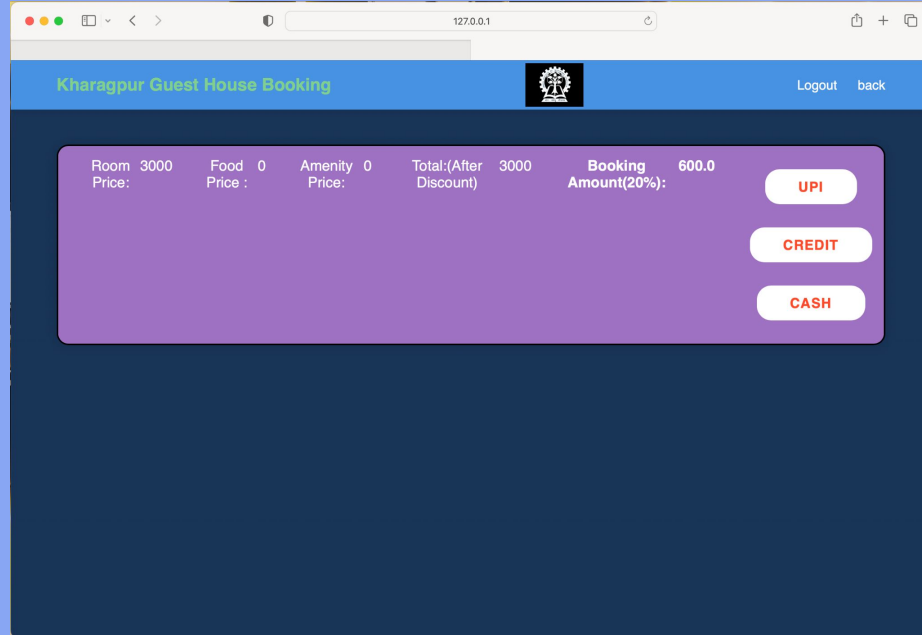
NON AC 2 800/- BOOK NOW

Suite Rooms

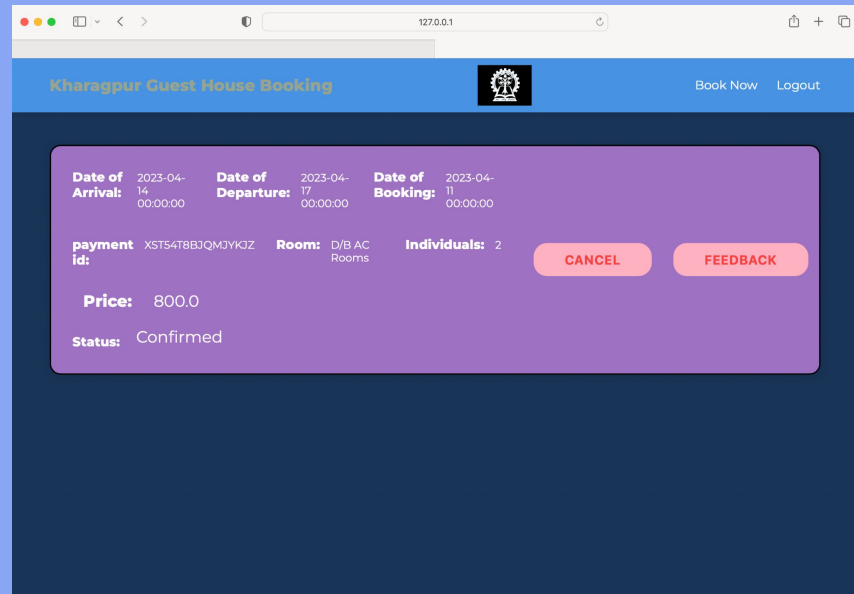
Single Bed

Availability: 9 10 11 12 13 14 15

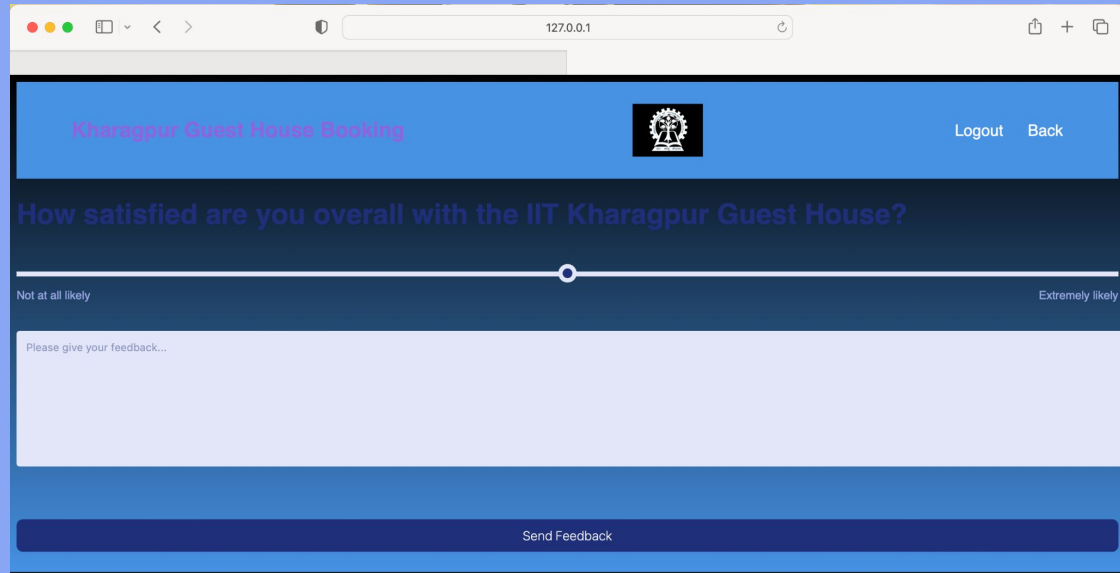
- This page displays the total individual costs the user need to pay for confirmation of Booking.



- Viewing all the bookings made by the user and their current status.They can cancel and provide feedback through this page.



- User can submit their feedback multiple times before 1 month after checkout date and this feedback will be updated to the admins of the guest house



The screenshot shows a web browser window displaying the 'Kharagpur Guest House Booking' page. The page has a blue header with the title 'Kharagpur Guest House Booking' on the left, a logo in the center, and 'Logout' and 'Back' links on the right. Below the header, the main content area has a dark blue background with the question 'How satisfied are you overall with the IIT Kharagpur Guest House?' in white. A horizontal slider is positioned below the question, with 'Not at all likely' on the left and 'Extremely likely' on the right. A white circle on the slider indicates the current satisfaction level. Below the slider is a large white text input field with the placeholder text 'Please give your feedback...'. At the bottom of the form is a dark blue button labeled 'Send Feedback'.



Confirmation, Cancellation and Status Update Mails



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to ▾



Your Booking Has been confirmed
Details of booking :
Payment id:2AHYQQZRPKP06VVS

Booking id:1
Status=In Queue
Guest House :Technology Guest House
Room:D/B AC Rooms
CheckIn:2023-04-13 00:00:00
CheckOut:2023-04-15 00:00:00

...



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to ▾



Your Booking Has been confirmed
Details of booking :
Booking id :1
Status :Confirmed



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to ▾



Your Booking Has been cancelled
Details of booking :
Payment id:6DYRM31SXVO7VBUV

...

Booking id:0
Amount refund:600.0
Status=Cancelled



03

Software Specifications

Our Approach

Flask

SQLAlchemy

smplib

Python Environment

Why did we choose flask ?

Easy to implement

It is a lightweight and flexible web framework for python. It provides only the core features required for web development.

Extensible

Flask is highly extensible, i.e.. It can add third party extensions to enhance its functionality. Eg..
Flask-SQLAlchemy
Flask-login

Modular , Great documentation

We can get started with it quickly and easily and it is designed to be modular, i.e.. can easily add or remove components as needed.



SQLAlchemy

It provides a powerful ORM layer that allows developers to interact with databases using python classes and objects.

smtplib

This module provides a simple and convenient way to create and send email messages using SMTP. Also supports authentication mechanisms such as LOGIN to securely send emails from authorized email accounts.

