

PROJECT REPORT ON
“KU Hostel(Online Hostel Management System)”

Submitted by:

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[Roll No.: - 90/MCA/190001; Registration No.: - 100131 of 2019-2020]

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Under the guidance of

Dr. Priya Ranjan Sinha Mahapatra

Professor

Dept. of Computer Science & Engineering



University of Kalyani

Kalyani, Nadia

Hostels

University of Kalyani



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Department Of Computer Science &
Engineering, University of Kalyani
Kalyani, Nadia, West Bengal

Certificate

This is to certify that the project report entitled "KU Hostel (ONLINE Hostel Management SYSTEM)", submitted to Department of C.S.E, University of Kalyani, in partial fulfillment of the requirement for the award of the degree of "Masters of Computer Applications" is an original work carried out by Anirban Ganguly & Sanket Auddya under the guidance of Dr. Priya Ranjan Sinha Mahapatra. The matter in this project is a genuine work done by the student and has not been submitted elsewhere of any course of study. I permit them to submit it.

I wish them every success in life.

Date: 27.06.2022

Place: Kalyani

Signature of the HOD

Dr. Anirban Mukhopadhyay

Professor

Department of Computer Science & Engineering
University of Kalyani
Kalyani, Nadia



University of Kalyani

Department of Computer Science &
Engineering Kalyani, Nadia

Certificate

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I wish them every success in life.

Date: 27.06.2022

Place: Kalyani

Signatures of Examiners

Signature of the Supervisor
Dr. Priya Ranjan Sinha Mahapatra
Professor

Department of Computer Science & Engineering
University of Kalyani
Kalyani, Nadia

DECLARATION

I declare that this written submission represents my ideas in my own words and where others' ideas or words have been included, I have adequately cited and other referenced the original sources.

I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea / data/ fact / source in my submission.

Signature of the student

Anirban Ganguly

Roll. No.: 90/MCA/190001

Registration No.: 100131 of 2019 20

Dept. of Computer Science & Eng.

University of Kalyani,

Kalyani, Nadia (W.B)

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Signature of the student

Sanket Auddya

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Kalyani, Nadia (W.B)

ACKNOWLEDGEMENT

A project work is not an obligation done by one person towards a predetermined and very specific goal. Rather, it is the coming together of many elements, some direct & some indirect, towards the planning & implementation of a long-drawn effort. A project work requires hard works, perseverance and dedication and above all a lot of support, as only teamwork can make good better and better best. So right at the onset we would like to express our apologies to those whose names we have missed out to mention. Thanks to our parents who always believed and supported us in every way possible. We sincerely appreciate all the love, support and trust, which made our work possible.

We are highly indebted to UNIVERSITY OF KALYANI and all our beloved teachers without whose moral help and extensive cooperation we would not be able to submit this report. We gratitude goes to our project supervisor Dr. Priya Ranjan Sinha Mahapatra, Professor of Computer Science and Engineering, Faculty of Engineering, Technology and Management, University of Kalyani, for his valuable advice, guidance and unending support right from the stage and suggestions during the difficult phases of the project.

Finally, yet important our sincere thanks goes to all who have directly and indirectly extended their valuable guidance and advice during the preparation of this report, which will give us the continuous flow of inspiration to complete this.

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INTRODUCTION

"KU Hostel" is a web application developed for managing various activities in a hostel or a mess. For a past few years and in the recent days the number of educational institutions is increasing rapidly. Thereby the number of hostels or messes are also increasing for the accommodation of the students studying in the institute. In our country all the Colleges and Universities have their own hostels or messes. Very few hostels or messes have an online system to handle all its operations. And hence there is a lot of strain on the persons who are running the hostel and a lot of paper works had to be done every day and software's are not being used in this context.

This particular project deals with the problems on managing a hostel and avoids the problems which occurs when carried manually. Identification of the drawbacks of the existing systems leads to the designing of the computerized system that will be compatible to the existing system with the system which is more user friendly and more GUI oriented and decrease the overhead of the existing of line system.

Scope of the Project

- This project helps in administrative work such as keep information of students and rooms. The project has a wide scope as it is not intended to a particular organization. This project is going to develop generic software, which can be applied by any hostel business organization. Moreover, it provides facility to its users. Also, the software is going to provide a huge amount of summary data.

Advantages

- There is always a need of a system that will perform management of hostel and student records with their fees.
- This system will reduce the manual operations required to maintain all records and also generates various reports for analysis.

Need of this application

The system is designed in favour of the hostel management which helps them to save the records of its current borders about their room numbers and other things. It helps them from the manual work from which it will be difficult to find the record of the students and the mess bills of the students and their other personal information and the information of ex-students who had left the hostel. All the hostels are managed manually by the hostel office. The registration form verification to the different data processing is done manually. Thus, there are a lot of repetitions which can be easily avoided. And hence there is a lot of strain on the person who are running the hostel and software's are not used in this context. This particular project deals with the problems on managing a hostel and avoids the problems which occur when carried manually identification of the drawbacks of the existing system leads to the designing of computerized system that will be compatible to the existing system with the system which is more user friendly. We can improve the efficiency of the system, thus overcome the drawbacks of the existing system. We design this system of the hostel management especially for the University hostels, through this they cannot require so efficient person to handle and calculate the things. This system automatically calculates all the bills and issued the notification for those students who are against some rule.

Comparison b/w Existing System & Proposed System

➤ Existing System

1. Requires a lot of time as well as manpower to manage register system. It is very difficult to maintain or update all the record and retrieve certain data.
2. In the existing system applying for the Hostels, there were many problems faced by the students like standing in the queues, waiting for longer hours because of manual entry.
3. The Existing system is a manually maintained system. So, the need for the automation is necessary.
4. All these details are entered and retrieved manually which is time consuming updating process inaccuracy of data.
5. Bills of all the expanses, meal charges, dues had to be recorded each day manually by a manager. Distribution of meal charges, room charge, electricity charges among the students is done manually.

➤ Proposed System

1. To replace the existing system which is much time consuming.
2. To provide quick and efficient means for gathering the student's information along with their rooms, fees of students and finally the check in and checkout time, every day's meal count etc.
3. The data has been organized according to the time and student details. Risk of losing data is minimal and easy to update the data. A backup can be easily generated.

Objective of the system

This web application is designed to improve the official works, and to reduce the manual work of the persons in the admin panel and the bundle of registers that were search when to find the information of a previous student become very hard. By this system we can retrieve the data of every present and previous students. The system will help you to check the mess bills of every student and the students hostel dues. The students of the hostel will be recognized from the ID number allocated at the room rental time. At last, this system will improve the management work in the hostel.

1. To automate each and every activity of the manual system, which increases its throughput.
2. To provide a quick response with very accurate information as and when required.
3. To make the present manual system more interactive, speedy and user friendly.
4. To avail any information whatever and whenever needed.

5. Reduce the paper works manually.

User wise Functionalities

❖ Admin

In administrator module admin manages the master data like server details and student details. Accept the application of the students, view the application forms, reject the fake applications, view the complaints and suggestions given by students, edit the notice board, manipulate from the database.

❖ Student

In student module they can submit their application form, change password, register themselves in the hostels, can check their monthly meal charges and other charges, pay their monthly charges. In Manager module, the manager can calculate the mess bill, edit every day's mess menu and also change the password.

❖ Manager

In Manager module, the manager can calculate the mess bill, edit every day's mess menu, view and modify notice board and also change the password.

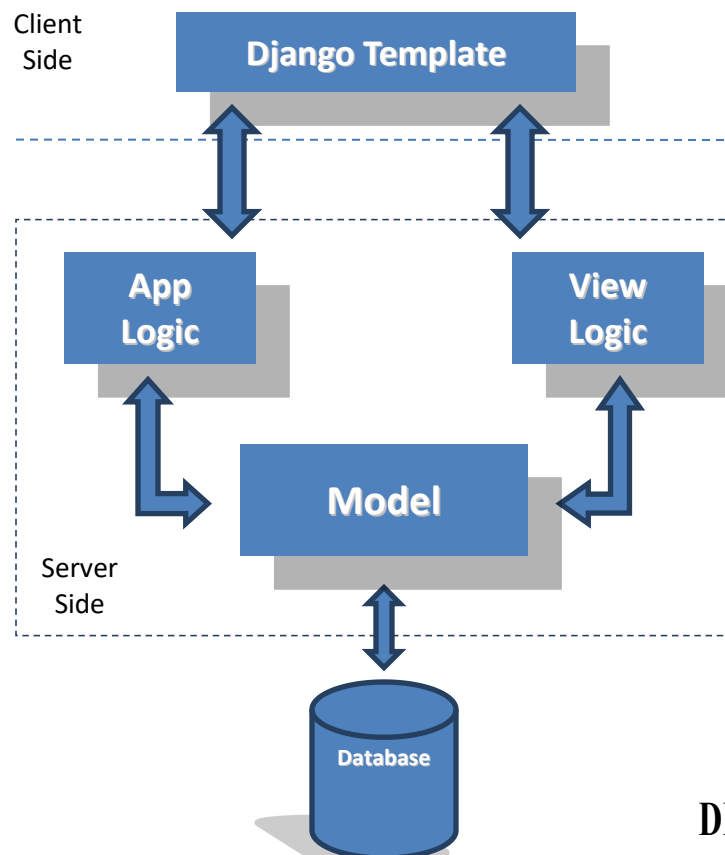
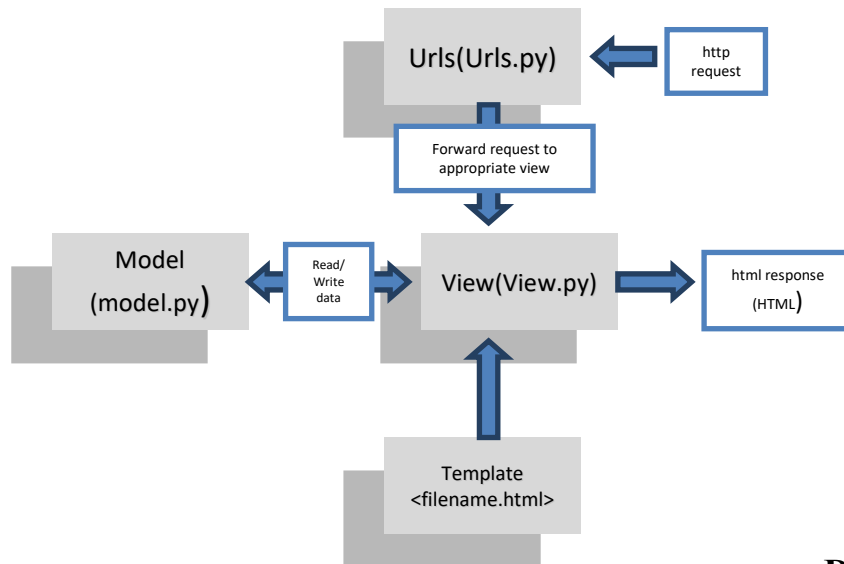
Software Requirement

- **Operating System** : Microsoft Windows
- **Application Software** : Visual Studio Code, Amazon AWS Django Instance, Git & GitHub
- **Programming Language** : HTML, CSS, PYTHON, JAVASCRIPT, Bootstrap 4, Tailwind CSS, SQL Lite3
- **Back End Database** : SQL, SQL Lite3, AWS EC2 Web Services
- **Web Browser** : Google Chrome, Mozilla Firefox etc.

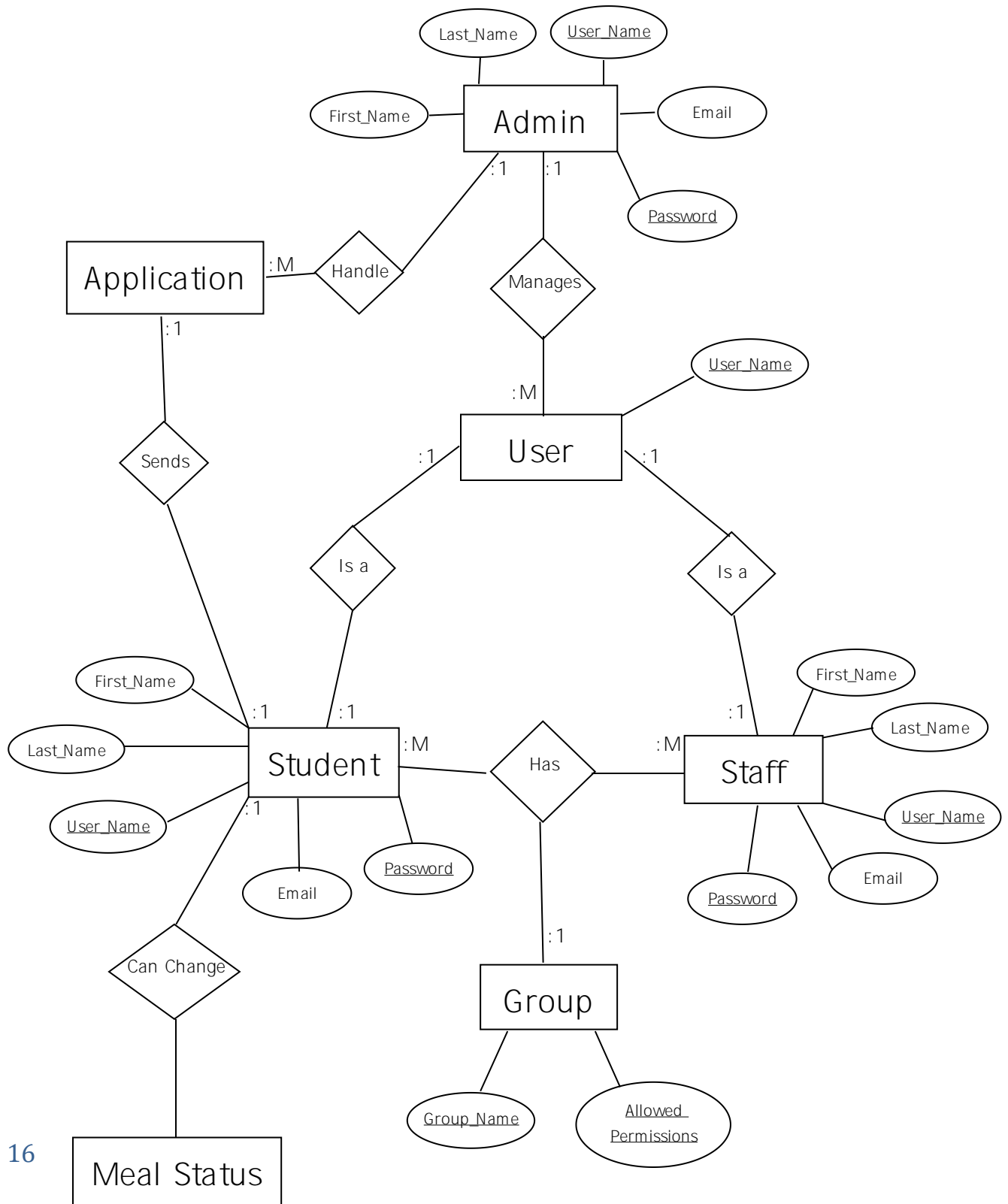
Hardware Requirement

- **Hard Disk** : Minimum 512 MB
- **RAM** : Minimum 512 MB
- **Processor** : Minimum Intel Dual Core Pentium

Data Flow Diagram (DFD)



Entity Relationship Diagram (ERD)

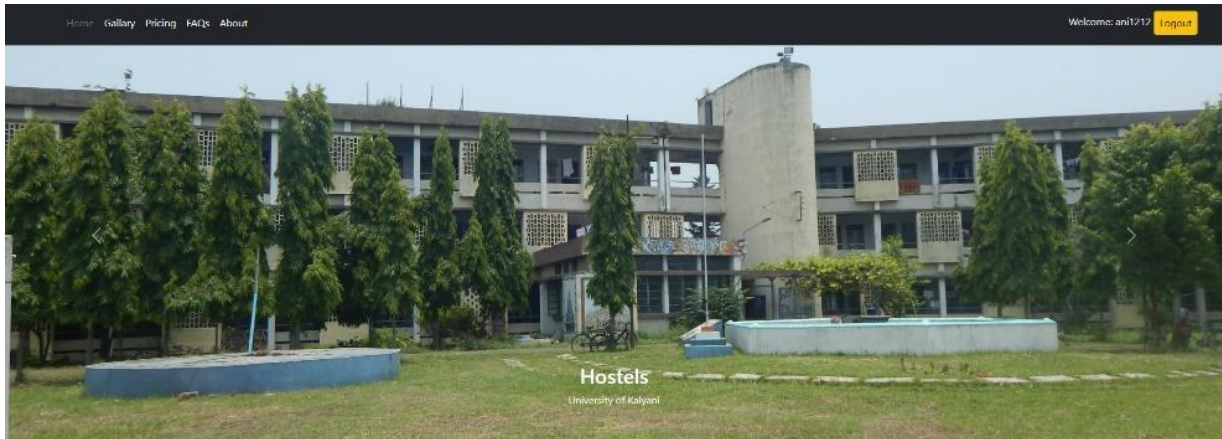


:1

Screenshots

➤ Frontend and User Interface

Index
Page



Hostel Accommodation

Admission to different Halls and Hostels of the University is made, generally, on the basis of the distance from the residence and family income of the regular students and Research Scholars. Regular students



Index
Page

The home for the memories

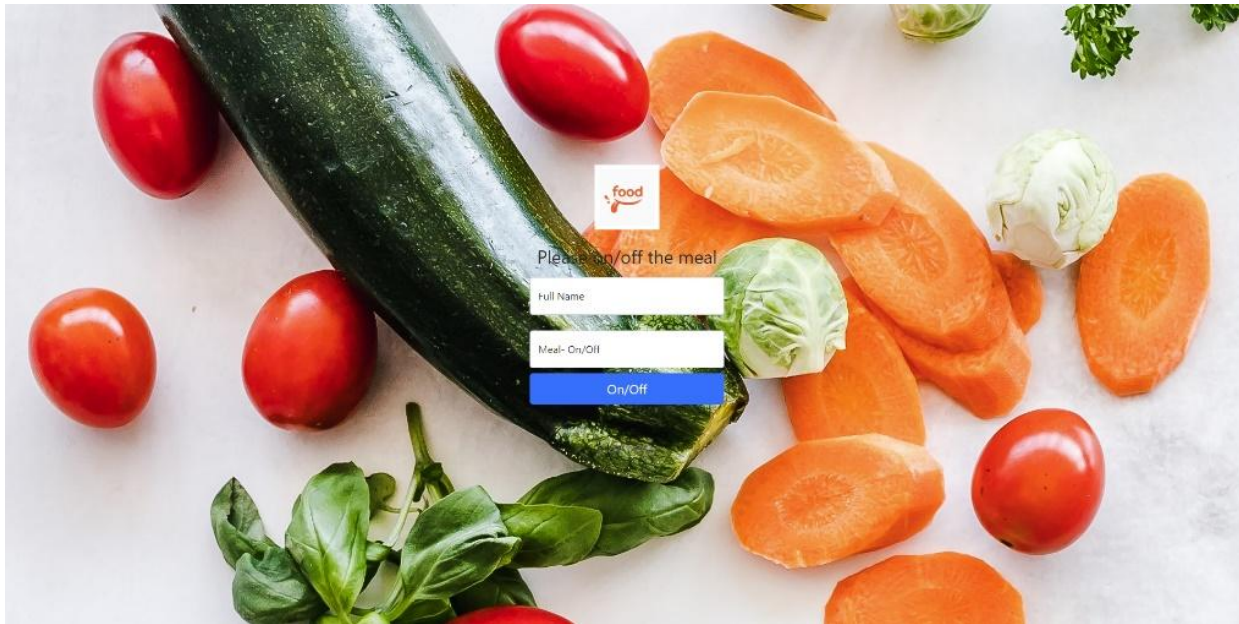
tearful first day night at hostel Meeting new people and making new Friends Roommates from different streams Scary nit before freshers party Learn to manage expenses and money management Made friends for life Days without breakfast Small occasion and event is celebrated with utmost excitement and pleasure Gallery flooded with snaps and videos Single plate to feed 10-15 people That "RIGHT TO VOTE" moment for Hostel Council Election Weird feeling when some of our roommate started talking at mid night while sleeping Missing moms pamper during sick .

[Click Here](#)



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Meal Status
On/Off Page

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[Gallery](#)
[Pricing](#)
[FAQs](#)
[About](#)

Welcome: ani1212 [Logout](#)

Kalyani University Hostel Portal

About
Us Page

Name of the Hostels	No. of seats
Dijendralal Bhawan (P.G Hall - I)	85
Bibekananda Bhawan (P.G Hall - II)	85
Meghnad Saha Bhawan (P.G Hall - III)	85
Jagadish Chandra Bhattacharya (Banyan Hall)	140
Satyendranath Bhawan (R.S. Mens)	65
Ulabati Bhawan (R.S. Womens)	35
Matangani Bhawan (L.H - I)	134
Niladrita Bhawan (L.H - II)	152
Radhakrishnan Bhawan (B.T. Mens)	100
Teresa Bhawan (extension of LH-II)	100

UNIVERSITY OF KALYANI

KALYANI, NADIA-741235

WEST BENGAL

Project Info



Prof. Priya Ranjan Sinha Mahapatra (MENTOR)

- Showing the path for the project.
- Helping and Solving the doubt.

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+91-6290-713486



Anirban Ganguly (Backend Developer)

- Frame work - Django.
- Backend Code & software - Python, SQLite3, Amazon AWS(E2C), Git and Github.

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+91-7980-142687



Sanket Auddya (Frontend Developer)

- Templates - Bootstrap 4, Tail Wind CSS.
- Frontend Code - HTML, CSS, JavaScript.

sanketauddya1999@gmail.com

+91-7557-036091

[Project Info Page](#)

Welcome to Gallery



[Gallery Page](#)

My Drive - Google Drive x Home Hostel x Application Form Hostel Manag: x Downloads x +

Not secure | 54.87.131.9/form

Compress PDF onli... Gmail YouTube Maps Gmail YouTube Maps

Home Gallery Pricing FAQs About Login Sign-up

Application Form

First name Last name Username

Mark Otto @

Address 1 Address 2 Contact Number

E-mail Address City

State Country Zip

Choose... Choose... Choose...

Department Name Year Registraion Number

Choose... Choose... Choose...

Admission Date Cast Distance Gender

Choose... Choose... Choose... Choose...

Type here to search 29°C 16:46 25-06-2022

Contact Us Page

Home Gallery Pricing FAQs About Welcome: admin Logout

Contact Us

Name

Enter your name

Phone no.

Enter your Phone no.

Email address

name@example.com

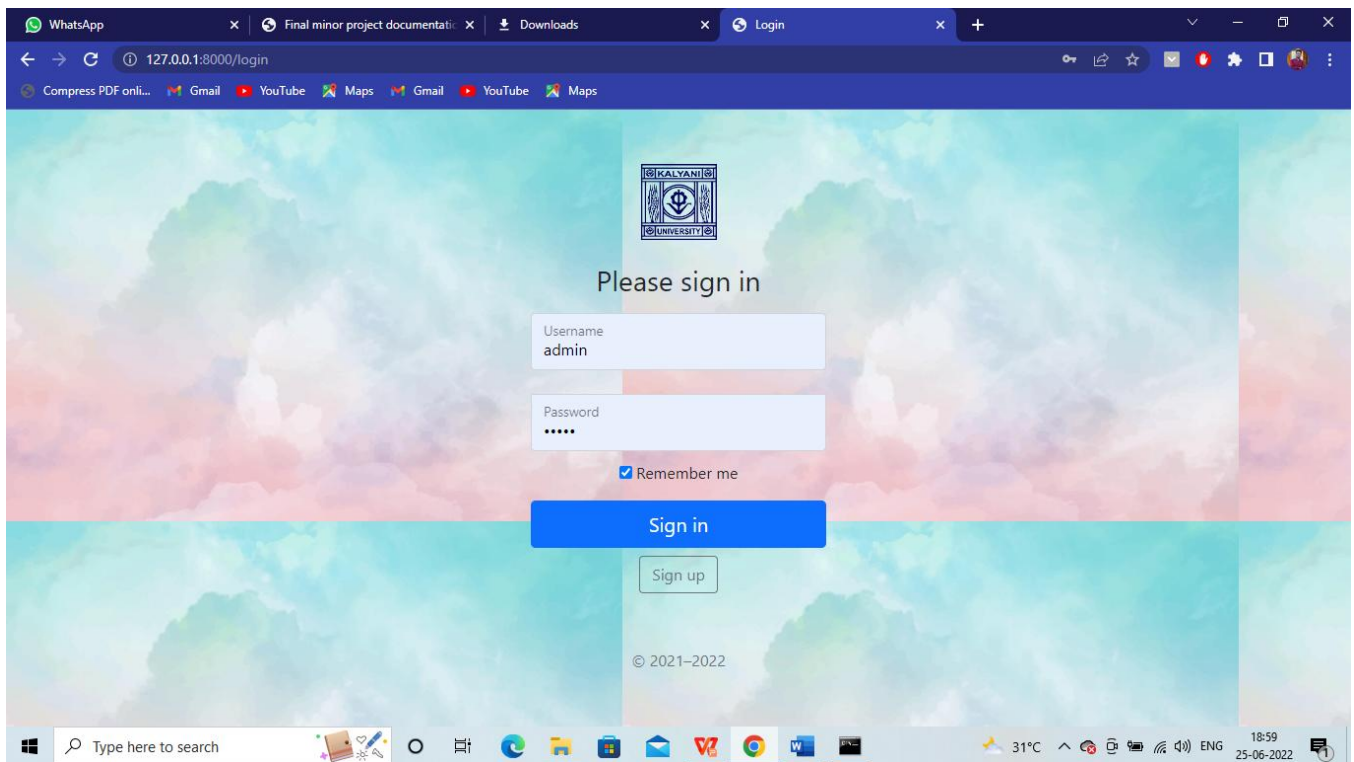
Tell me what you want to contact me for

Submit

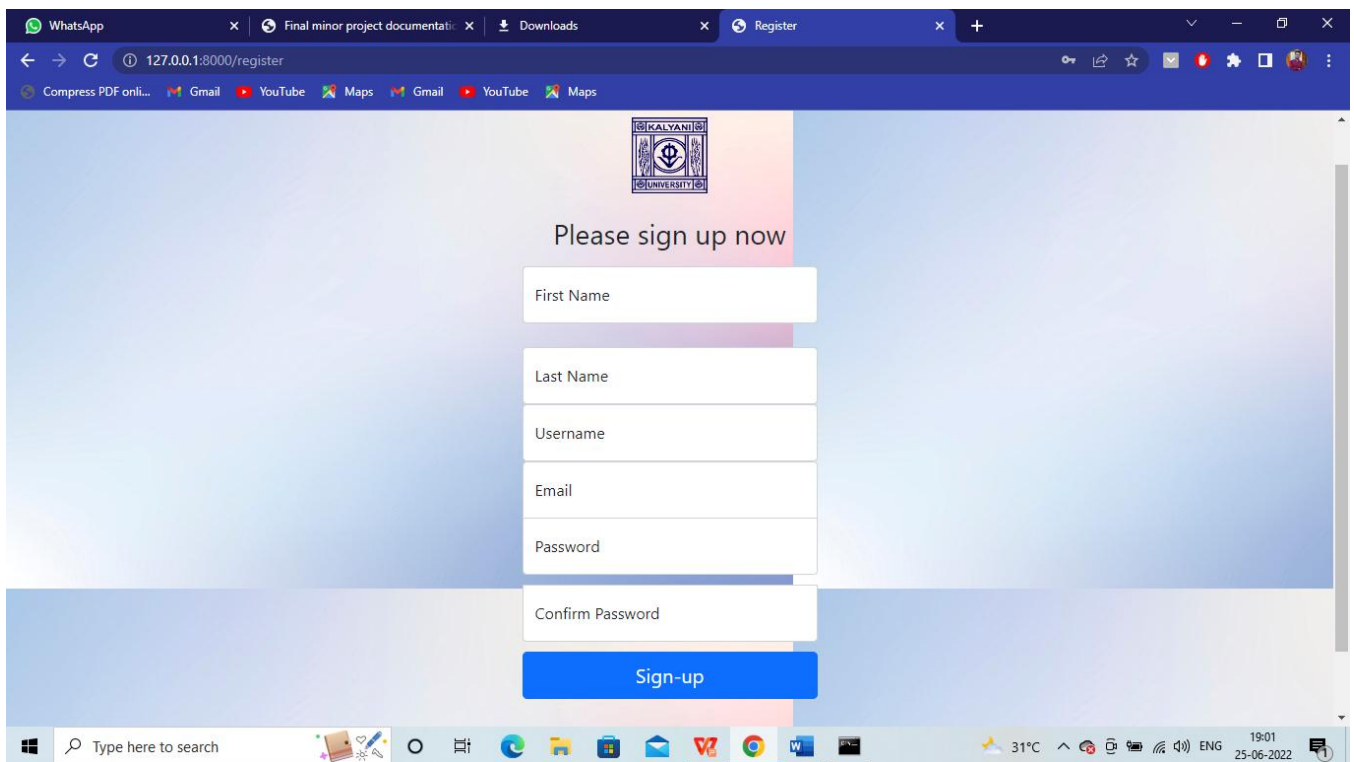
Home Meal University portal FAQs Project Info

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Application Form



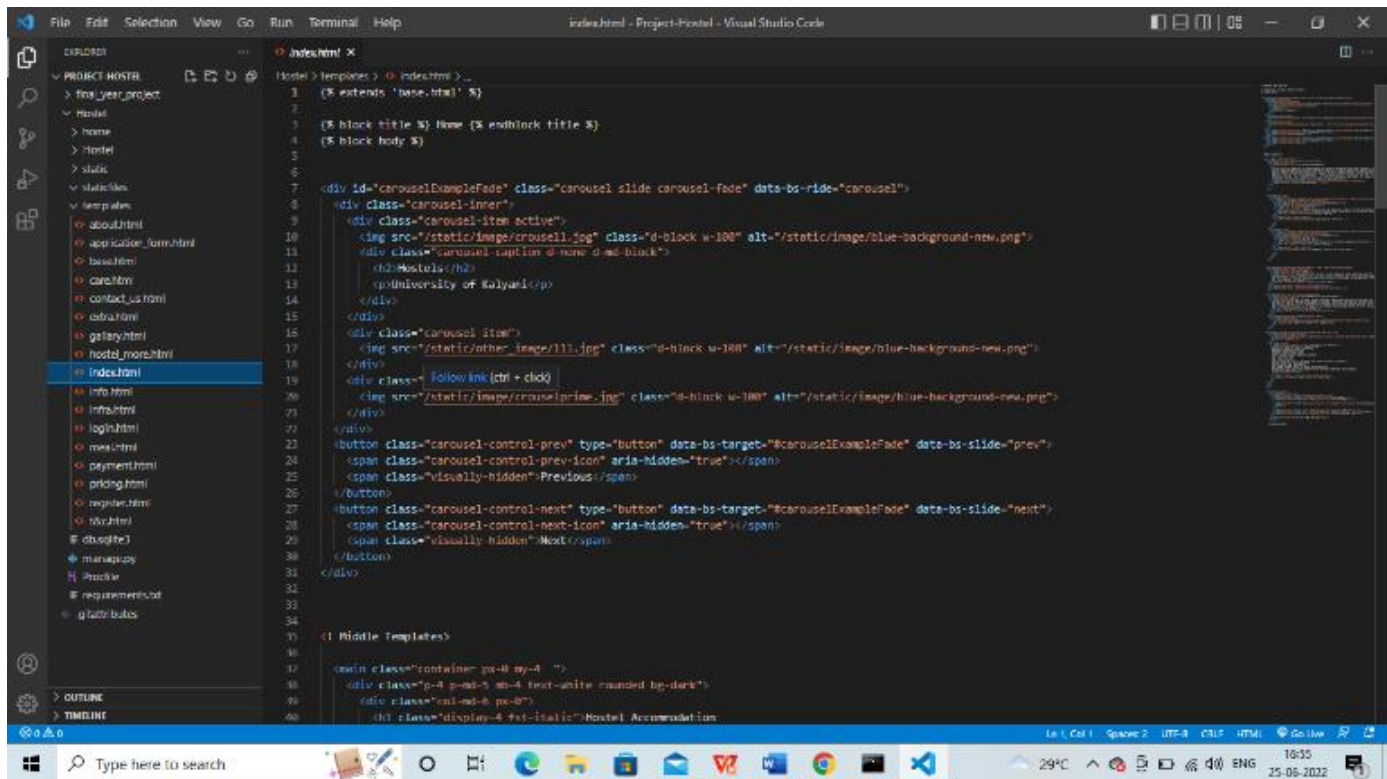
Sign in page



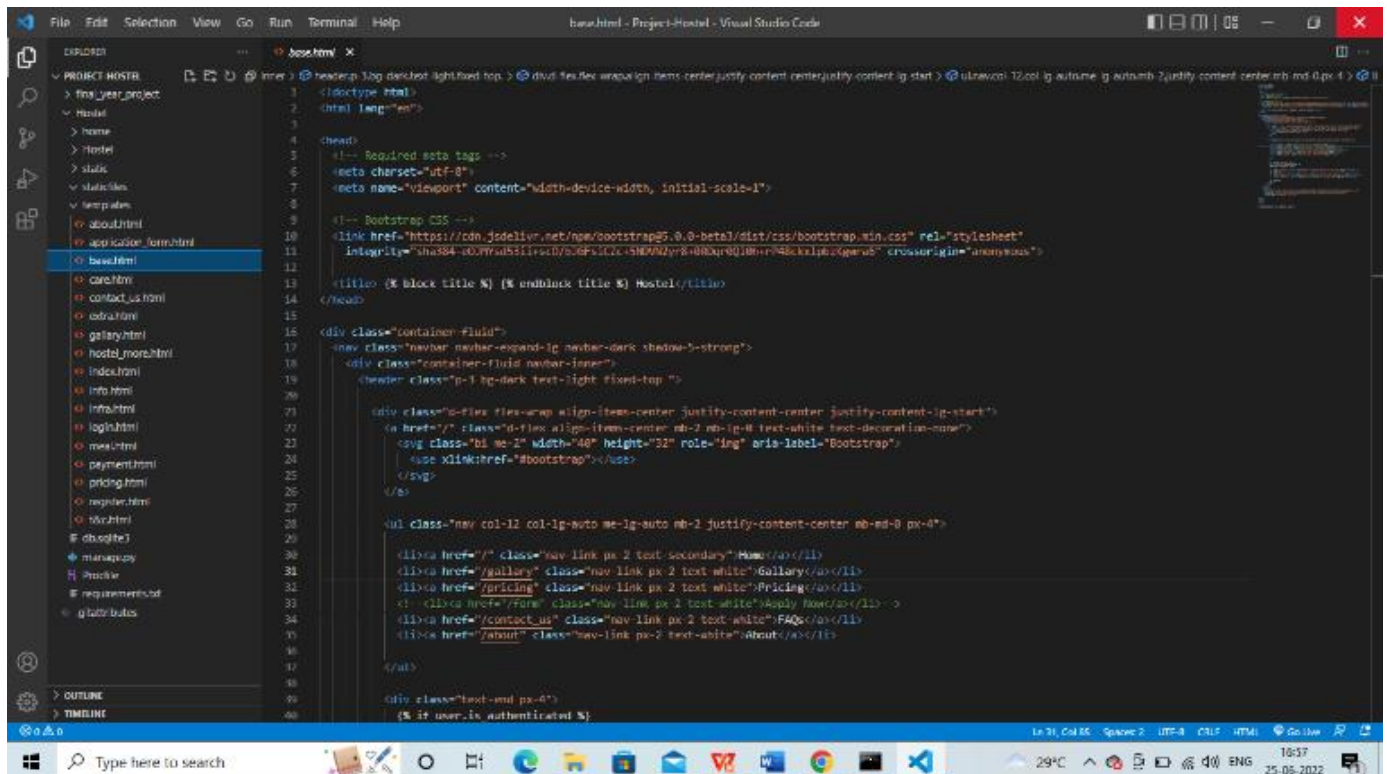
Sign up page

Coding

➤ Front end templates



```
index.html - Project-Hotel - Visual Studio Code
1  (<!-- extends 'base.html' -->)
2
3  (<!-- block title --> <title> Home (</endblock title -->)
4  (<!-- block body -->)
5
6
7  <div id="carouselExampleFade" class="carousel slide carousel-fade" data-bs-ride="carousel">
8    <div class="carousel-inner">
9      <div class="carousel-item active">
10         
11         <div class="carousel-caption d-none d-md-block">
12           <h2>Hostels</h2>
13           <p>University of Kalyani</p>
14         </div>
15       </div>
16       <div class="carousel-item">
17         
18       </div>
19       <div class="carousel-item">
20         
21       </div>
22     </div>
23     <div class="carousel-control-prev" type="button" data-bs-target="#carouselExampleFade" data-bs-slide="prev">
24       <span class="carousel-control-prev-icon" aria-hidden="true"></span>
25       <span class="visually-hidden">Previous</span>
26     </div>
27     <div class="carousel-control-next" type="button" data-bs-target="#carouselExampleFade" data-bs-slide="next">
28       <span class="carousel-control-next-icon" aria-hidden="true"></span>
29       <span class="visually-hidden">Next</span>
30     </div>
31   </div>
32
33   <!-- Middle Templates -->
34
35   <div class="container py-4 my-4">
36     <div class="p-4 p-md-5 mb-4 text-white rounded bg-dark">
37       <div class="col-md-6 px-0">
38         <h1 class="display-4 text-white">Hostel Accommodation</h1>
39       </div>
40     </div>
41   </div>
```



```
base.html - Project-Hotel - Visual Studio Code
1  <!-- Required meta tags -->
2  <!-- Required meta tags -->
3  <!-- Required meta tags -->
4  <!-- Required meta tags -->
5  <!-- Required meta tags -->
6  <!-- Required meta tags -->
7  <!-- Required meta tags -->
8  <!-- Required meta tags -->
9  <!-- Required meta tags -->
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46 <!-- Required meta tags -->
47 <!-- Required meta tags -->
48 <!-- Required meta tags -->
49 <!-- Required meta tags -->
50 <!-- Required meta tags -->
```




```
1 from django.db import models
2
3 # Create your models here.
4 class Contact(models.Model):
5     name = models.CharField(max_length=50)
6     phone = models.CharField(max_length=50)
7     email = models.EmailField(max_length=254)
8     desc = models.TextField()
9     date = models.DateField()
10
11 class Meal(models.Model):
12     name = models.CharField(max_length=50)
13     mealstatus = models.CharField(max_length=50)
14     date = models.DateField()
15
16 class Application(models.Model):
17     f_name = models.CharField(max_length=50)
18     l_name = models.CharField(max_length=50)
19     username = models.CharField(max_length=50)
20     address1 = models.TextField(max_length=254)
21     address2 = models.TextField(max_length=254)
22     c_number = models.CharField(max_length=50)
23     email = models.EmailField(max_length=254)
24     city = models.CharField(max_length=50)
25     state = models.CharField(max_length=50)
26     country = models.CharField(max_length=50)
27     zip = models.CharField(max_length=50)
28     d_name = models.CharField(max_length=50)
29     year = models.CharField(max_length=50)
30     reg_number = models.CharField(max_length=50)
31     a_date = models.CharField(max_length=50)
32     cast = models.CharField(max_length=50)
33     morden = models.CharField(max_length=50)
```

```
1 from state import State
2 from django.shortcuts import redirect, render
3 from django.shortcuts import render, HttpResponseRedirect
4 from django.contrib import messages
5 from django.contrib.auth.models import User
6 from django.contrib.auth import authenticate, login, logout
7 from datetime import datetime
8
9 def index(request):
10     if request.user.is_anonymous:
11         return HttpResponseRedirect('/login/')
12     messages.success(request, "Successfully Logged In")
13     return render(request, 'index.html')
14
15 def contact_us(request):
16     if request.method == "POST":
17         name = request.POST.get('name')
18         phone = request.POST.get('phone')
19         email = request.POST.get('email')
20         desc = request.POST.get('desc')
21         contact = Contact(name=name, phone=phone, email=email, desc=desc, date=datetime.now())
22         contact.save()
23         messages.success(request, "Your message has been sent.")
24     return render(request, 'contact_us.html')
25
26 def application_form(request):
27     if request.method == "POST":
28         f_name = request.POST.get('f_name')
29         l_name = request.POST.get('l_name')
```


Conclusion

Throughout this implementation we observe that, there are also some drawbacks with this system like though our database is not professionally secured that is why we may face data loss or data hacking in the future.

But no doubt this will be very helpful for the education system which provides us a fast and efficient approach.

Future Scope

- The project has a wide scope as it is not intended to a particular organization. This project is going to develop generic application, which can be applied by any hostel business organization. Moreover, it provides facility to its users. Also, the software is going to provide a huge amount of summary data.
- Various other options can also be added for the better usability of the project.

Bibliography

- <https://github.com/Anirbandz/Project-Hostel>(Link of GitHub)
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- <https://www.wikipedia.org>

