

Dormzz : Hostel Management System

A project submitted to

UKA TARSADIA UNIVERSITY

in partial fulfillment of the requirements for the degree of

Bachelor of Science

in

Information Technology

for

5 Years Integrated M.Sc.(IT)

By

Parth Desai

(202003103410001)

Pooja Patel

(202006100110037)

Guided by

Ms. Jaimini Patel

Assistant Professor



Babu Madhav Institute of Information Technology

Uka Tarsadia University

Bardoli – 394350

May 2023

CERTIFICATE

This is to certify that **Parth Desai (202003103410001)** and **Pooja Patel (202003103410001)** has submitted project entitled “**Dormzz : Hostel Management System**” as the partial fulfillment for the award of the degree of Bachelor of Science in Information Technology for 5 Years Integrated M.Sc.(IT) in 2022 – 2023.

Date: 05/05/2023

Place: BMIIT, UTU, Bardoli

Ms. Jaimini Patel

Guide

Dr. Jitendra Nasriwala

Programe Coordinator

External Examiner



UKA TARSADIA
university
Creating, Inspiring, Learning, Growing, Transforming, Living.

Babu Madhav Institute of Information Technology,

Uka Tarsadia University,

Bardoli – 394350

Table of Content

Chapters	Particulars		Page no.
1	Introduction		
	1.1	Problem Definition	6
	1.2	Project Objective	6
	1.3	Product Scope	7
2	Overall Description		
	2.1	Product Perspective/ Environment Description	7
	2.1.1	Hardware Interface / Hardware Specification	7
	2.1.2	Software Interface / Software Specification	7
3	System Specific Requirements		
	3.1	Functional Requirement	8
	3.2	Non-functional Requirement	9
4	System Design		
	4.1	Database Design	10
	4.1.1	Database Schema	10
	4.1.2	Data Dictionary	13
5	System Implementation		
	5.1	Screenshots	19
6	Testing		
	6.1	Test Cases	28
7	Future Enhancement		30
	Conclusion		30
	Bibliography		30

List of Figures

Figure no.	Figure Description	Page no.
5.1.1	Use Case Diagram for Admin	24
5.1.2		
5.1.3		
5.2.1	Activity Diagram for Manage Product	25
5.2.2		
5.2.3		
5.2.4		
5.2.5		
5.3.1	Sequence Diagram for "adding a product"	-

List of Tables

Table no.	Table Description	Page no.
	Data Dictionary Tables	13 – 18
6.1.1	Test Cases for Register	28
6.1.2	Test Cases for Login	28
6.1.3	Test Cases for Add / Update Staff Member	28
6.1.4	Test Cases for Assign Designation	29
6.1.5	Test Cases for Room-Map	29

1.Introduction

1.1 Problem Definition

A Hostel/Chain of Hostel is an essential part of an Institute along with educational curriculum. Every year hundreds of students takes admission and decides to stay in Hostel. It Provides a space to students who are unable to travel a lot or who are living much far away from the institute or are unaware of the surroundings to live with. The best hostel management systems not only allow the admin, owner or staff members to manage the various aspects of the business from one location, they offer the possibility for employees to access the system remotely, and the information that is updated within the system to all the employees automatically.

Finding a PG is not easy sometimes because there are lots of essential tasks that are needed to be done in order to finalize a place to live-in such as finding a good PG situated not very far from the institute, availability of the life essential things, amenities etc. and importantly, living in a Hostel helps students save their traveling time and utilize this time into many different useful areas. Therefore, a good platform must be required to provide all the useful privileges to find a Hostel and book a place that comforts them.

1.2 Project Definition / Objective

Dormzz: The Hostel Management System allows to use wide range of loaded features online which are usually not provided to the students or staff members due to unapproachable resources. Given below are the key features of the system that the students and staff will be able to use:

- Booking Rooms
- Online Payment
- Saving Transportation Time
- Daily Activities and Games
- Cleanliness and Hygiene
- Counseling
- Events
- Proper Maintained Schedule
- Immediate Health assist/support.

1.3 Scope / Boundaries

The Scope of the system is limited to the stack holders of the Uka Tarsadia University, Bardoli. Viz. Admin, Staff and Students. This system is designed to be used for the long period of time over the number of new batches.

2. Overall Description

2.1 Product Perspective / Environment Description

2.1.1 Hardware Interface / Hardware Specification

Device name	PARTHs-DESKTOP
Processor	Intel(R) Core (TM) i5-1035G1 CPU @ 1.00GHz 1.19 GHz
Installed RAM	16.0 GB
System type	64-bit operating system, x64-based processor
Hard Disk	512 GB

2.1.2 Software Interface / Software Specification

Operating System	Microsoft Windows 11
Front End	HTML, CSS, JS, Bootstrap
Back End	Mysql, JSP
Input Device	Keyboard, Mouse
Output Device	Monitor, Printer
Software Used	Eclipse IDE, Visual Studio Code (Version 1.69.0)
Tools	Tomcat, MYSQL Server

3. System Specific Requirements

3.1 Functional Requirements

- Registration and Login

RN	Description	Comment
FR 1	System shall allow students/staff to login.	Login
FR 2	System shall allow students/staff to logout.	Logout
FR 3	System shall allow students/staff to change password if user forgot his old password.	Forgot Password
FR 4	System shall allow students to register.	Registration

- Manage User Profiles (All users)

RN	Description	Comment
FR 1	System shall allow students/staff to change password.	Change Password
FR 2	System shall allow students/staff to view their profile.	View Profile

- Manage Packages & Rooms

RN	Description	Comment
FR 1	System shall allow admin to add new packages	Add Packages
FR 2	System shall allow admin to check and modify the availability of room and modify the packages	Room and Package Availability
FR 3	System shall allow admin to modify room details.	Modify Room Details
FR 4	System shall allow students/staff to view packages.	View Packages

- Manage Complains

RN	Description	Comment
FR 1	System shall be allow students/staff to place and modify Complains	Place Complains

- View Dashboard and Add contact details

RN	Description	Comment
FR 1	System shall allow admin to view dashboard.	Orders
FR 2	System shall allow admin to view specific student's dashboard.	Student's Dashboard
FR 3	System shall allow admin to view specific staff's dashboard.	Staff's Dashboard
FR 4	System shall allow admin to add contact details in dashboard.	Add contact details

3.2 Non Functional Requirements:

RN	Description	Comment
NFR1	The System will be able to Manage stored Payment Options.	Security
NFR2	The System will be reliable on Enrollment Number and Institute Id.	Reliability
NFR3	The System will be compatible with different OS and Devices.	Compatibility
NFR4	The System will be able to Provide Easy-to-Use Interface to for Users.	Usability
NFR5	The System will be able to provide all the necessary data under regular traffic as well as critical situations.	Availability
NFR6	The System will be able to perform simple tasks and Operations.	Simplicity

4. System Design

4.1 Database Design :

4.1.1 Database Schema

1. Table Name : tblRegister
tblRegister (user_id[PK], EnrollmentNo, CourseName, DepartmentName, Username, Password, FirstName, LastName, Gender, Email, PhoneNo)
FD: user_id-> EnrollmentNo->CourseName->DepartmentName->Username->Password->FirstName->LastName->Gender->Email->PhoneNo
2. Table Name : tblStudent
tblStudent (user_id[PK], Club_id[FK], Profile_img)
FD: user_id[PK] ->Club_id[FK] ->Profile_img
3. Table Name : tblStaff
tblStaff (user_id[PK], role_id[FK])
FD: user_id[PK] ->role_id[FK],
4. Table Name : tblRole
tblRole(Role_id[PK], Role_type)
FD: Role_id[PK] ->Role_type
5. Table Name : tblHostel
tblHostel (Hostel_id[PK], Capacity, Hostel_Name, Hostel_Category, Hostel_Status, Hostel_Distance, Hostel_Type, Available_Rooms, user_id[FK], Mess_ID[FK], Address, Hostel_Floor, Hostel_Map)
FD: Hostel_id[PK] ->Capacity->Hostel_Name->Hostel_Category->Hostel_Status->Hostel_Distance->Hostel_Type->Available_Rooms->user_id[FK] ->Mess_ID[FK] ->Address->Hostel_Floor->Hostel_Map
6. Table Name : tblRoom
tblRoom (Room_id[PK], Room_Type_id[FK], Hostel_id[FK])
FD: Room_id[PK] ->Room_Type_id[FK] ->Hostel_id[FK]
7. Table Name : tblRoomType
tblRoom (Room_Type_id[PK], Room_Type, Room_Capacity, Room_Facilities_id[FK])
FD: Room_Type_id[PK] ->Room_Type->Room_Capacity->Room_Facilities_id[FK]
8. Table Name : tblRoomFacilities
tblRoomFacilities (Room_Facilities_id[PK], Room_Facilities)
FD: Room_Facilities_id[PK] ->Room_Facilities

9. Table Name : tblMess
tblMess(Mess_id[PK], Mess_Name, user_id[FK], Hostel_id[FK], MessMenu_id[FK])
FD: Mess_id[PK] ->Mess_Name, user_id[FK] ->Hostel_id[FK] ->MessMenu_id[FK]
10. Table Name : tblMess_Menu
tblMess_Menu(MessMenu_id[PK], Menu_Day, Menu_Time, Dish_id[FK])
FD: MessMenu_id[PK] ->Menu_Day->Menu_Time->Dish_id[FK]
11. Table Name : tblDish
tblMess(Dish_id[PK], DishName)
FD: Dish_id[PK] ->DishName
12. Table Name : tblPackage
tblPackage (Package_id[PK], Package_Name, Package_Description, Package_Price, Package_Valid_From, Package_Valid_To)
FD: Package_id[PK] ->Package_Name->Package_Description->Package_Price->Package_Valid_From->Package_Valid_To
13. Table Name : tblHostel_Record
tblHostel_Record (Record_id[PK], user_id[FK], Hostel_id[FK], Room_id[FK], Room_Type_id[FK], Timestamp_Check_Out, Timestamp_Check_In, User_Status)
FD: Record_id[PK] ->user_id[FK] ->Hostel_id[FK] ->Room_id[FK] ->Room_Type_id[FK] ->Timestamp_Check_Out->Timestamp_Check_In->User_Status
14. Table Name : tblTransaction
tblTransaction (Trn_id[PK], user_id[FK], Record_id[FK], Package_id[FK], Trn_Timestamp, Trn_Amount, Trn_Mode, Trn_refference_id, Trn_Status)
FD: Trn_id[PK] ->user_id[FK] ->Record_id[FK] ->Package_id[FK] ->Trn_Timestamp->Trn_Amount->Trn_Mode->Trn_refference_id->Trn_Status
15. Table Name : tblComplain
tblComplain (Cmp_id[PK], Cmp_Type_id[FK], user_id[FK], Cmp_Timestamp, Cmp_Brief, Cmp_Remarks, Cmp_Status, Cmp_ClosedBy, Cmp_UpdatedTS)
FD: Cmp_id[PK]->Cmp_Type_id[FK] ->user_id[FK] ->Cmp_Timestamp->Cmp_Brief->Cmp_Remarks->Cmp_Status->Cmp_ClosedBy->Cmp_UpdatedTS
16. Table Name : tblComplain_Type
tblComplain_Type (Cmp_Type_id[PK], Cmp_Type, ReC_Type)
FD: Cmp_Type_id[PK] ->Cmp_Type->ReC_Type
17. Table Name : tblRequest
tblRequest (Req_id[PK], Req_Type_id, user_id[FK], Req_Timestamp, Req_Brief, Req_Remarks, Req_Status, Req_UpdatedBy, Req_UpdatedTS)

FD: Req_id[PK]->Req_Type_id->user_id[FK]->Req_Timestamp->Req_Brief->Req_Remarks->Req_Status->Req_UpdatedBy->Req_UpdatedTS

18. Table Name : tblFeedback

tblFeedback (Fdb_id[PK], user_id, Fdb_Timestamp, Fdb_Brief)

FD: Fdb_id[PK] ->user_id->Fdb_Timestamp->Fdb_Brief

19. Table Name : tblEvent

tblEvent (Event_id[PK], Event_Name, Event_Date)

FD: Event_id[PK] ->Event_Name->Event_Date

20. Table Name : tblClub

tblClub (Club_id[PK], Club_Name, user_id, Event_id)

FD: Club_id[PK]->Club_Name->user_id->Event_id

21. Table Name : tblNotice

tblNotice (Notice_id[PK], Notice_Brief, user_id, Notice_Timestamp)

FD: Notice_id[PK]->Notice_Brief->user_id->Notice_Timestamp

22. Table Name : tblLeave

tblLeave (Leave_id[PK], user_id[FK], Leave_Reason, Leave_From, Leave_To, Leave_Status, Leave_Remarks, Leave_ApprovedBy)

FD: Leave_id[PK]->user_id[FK]->Leave_Reason->Leave_From->Leave_To->Leave_Status->Leave_Remarks->Leave_ApprovedBy

4.1.2 Data Dictionary

1. Table Name : tblRegister

tblregister				
Field Name	Datatype	Size	Constraint	Description
user_id	int	7	Primary Key	Unique id of Users
EnrollmentNo	big int	9	Not Null	Enrollment Numbers of User
CourseName	Varchar	500	Not Null	Current Course Pursuing
DepartmentName	Varchar	500	Not Null	Department Name
Username	Varchar	100	Not Null	User Account id
Password	Varchar	255	Not Null	User Account Password
FirstName	Varchar	100	Not Null	First Name of the User
LastName	Varchar	100	Not Null	Last Name of the User
Gender	Varchar	10	Not Null	Gender of User
Email	Varchar	500	Not Null	Email id of the User
PhoneNo	Numeric	10	Not Null	Phone number of the User

2. Table Name : tblStudent

tblStudent				
Field Name	Datatype	Size	Constraint	Description
user_id	int	7	Primary Key	Unique id of Users
Club_id	int	6	Foreign Key	Unique id of Club
Profile_img	Varchar	800	./Image/default_profile.jpeg	Default Path of Profile Pic

3. Table Name : tblStaff

tblStaff				
Field Name	Datatype	Size	Constraint	Description
user_id	int	7	Primary Key	Unique id of Users
Role_id	int	5	Foreign Key	Unique id of Role
Hostel_id	Bigint	7	Foreign Key	Id of Hostel

4. Table Name : tblRole

tblRole				
Field Name	Datatype	Size	Constraint	Description
Role_id	Int	5	Primary Key	Unique id of Role Type
Role_Type	Varchar	100	Not Null	Type of Role

5. Table Name : tblHostel

tblHostel				
Field Name	Datatype	Size	Constraint	Description
Hostel_id	Int	7	Primary Key	Unique id of Hostel
Capacity	Int	3	Not Null	Capacity of a Hostel
Hostel_Name	Varchar	500	Not Null	Name of the Hostel
Hostel_Category	Varchar	50	Not Null	Category of Hostel (Male/Female)
Hostel_Status	Varchar	100	Not Null	Status of Hostel
Hostel_Distance	Varchar	10	Not Null	Distance of Hostel from Campus
Hostel_Type	Varchar	200	Not Null	Type of Hostel
Available_Rooms	Int	100	Not Null	Availability of the Rooms
user_id	Int	7	Foreign Key	Unique Staff id of Rector
Mess_id	Int	3	Foreign Key	Unique Mess id of Mess
Address	Varchar	500	Not Null	Address of the Hostel
Hostel_Floor	Int	3	Not Null	Number of Floor of Hostel
Hostel_Map	LongText	65000	Not Null	Map of Rooms of Hostel

6. Table Name : tblRoom

tblRoom				
Field Name	Datatype	Size	Constraint	Description
Room_id	Int	5	Primary Key	Unique id of Room
Room_Type_id	Varchar	4	Foreign Key	Unique id of Room Type
Hostel_id	int	7	Foreign Key	Unique id of Hostel

7. Table Name : tblRoomType

tblRoomType				
Field Name	Datatype	Size	Constraint	Description
Room_Type_id	Int	5	Primary Key	Unique id of Room Type
Room_Type	Varchar	20	Not null	Type of Room
Room_Capacity	int	2	Not null	Capacity of the Room
Room_Facilities_id	Varchar	250	Foreign Key	Unique id of Facilities Provided

8. Table Name : tblRoomFacilities

tblRoomFacilities				
Field Name	Datatype	Size	Constraint	Description
Room_Facilities_id	Int	5	Primary Key	Unique id of Facilities Provided
Room_Facilities	Varchar	80	Not Null	Facilities Provided in Rooms

9. Table Name : tblMess

tblMess				
Field Name	Datatype	Size	Constraint	Description
Mess_id	int	3	Primary Key	Unique id of Mess
Cateres_Name	Varchar	500	Not Null	Name of Mess Cateres
user_id	Big Int	7	Foreign Key	Unique id of Staff Members only
Hostel_id	Big Int	7	Foreign Key	Unique id of Hostel
MessMenu_id	Big Int	5	Foreign Key	Unique id of Mess Menu

10. Table Name : tblMess_Menu

tblMess_Menu				
Field Name	Datatype	Size	Constraint	Description
MessMenu_id	Int	5	Primary Key	Unique id of Mess Menu
Menu_Day	Date		Not Null	Day of Menu Applicable
Menu_Time	Time		Not Null	Time of Day Menu Applicable
Dish_id	Varchar	10000	Foreign Key	Unique id of Dishes

11. Table Name : tblDish

tblDish				
Field Name	Datatype	Size	Constraint	Description
Dish_id	Big Int	6	Primary Key	Unique id of Dishes
DishName	Varchar	800	Not Null	Name of Dishes

12. Table Name : tblPackage

tblPackage				
Field Name	Datatype	Size	Constraint	Description
Package_id	Big Int	7	Primary Key	Unique id of Packages
Package_Name	Varchar	50	Not Null	Name of Package
Package_Description	Varchar	900	Not Null	Description about Package
Package_Price	Big Int	7	Not Null	Price of Package
Package_Valid_From	Date		Not Null	Date of Package Validity
Package_Valid_To	Date		Not Null	Expiry Date of Package

13. Table Name : tblHostel_Record

tblHostel_Record				
Field Name	Datatype	Size	Constraint	Description
Record_id	Big Int	10	Primary Key	Unique id of Hostel Record
Trn_id	Big Int	12	Null	Id of Transactions
user_id	Int	7	Foreign Key	Unique id of Users
Hostel_id	Int	7	Foreign Key	Id of Hostel
Room_id	Int	5	Foreign Key	Unique id of Room
Timestamp_Check_Out	DateTime		Not Null	Timestamp of Check out
Timestamp_Check_In	DateTime		Not Null	Timestamp of Check in
User_Status	Varchar	7	Not Null	Status of User Account

14. Table Name : tblTransaction

tblTransaction				
Field Name	Datatype	Size	Constraint	Description
Trn_id	Big Int	12	Primary Key	Unique id of Transaction
user_id	Big int	7	Foreign Key	Unique id of Users
Record_id	Big Int	10	Foreign Key	Unique id of Hostel Record
Trn_Timestamp	Date		Current TS	Timestamp of Transaction
Trn_Amount	Double		Not Null	Amount of Hostel Fees / Package
Trn_Mode	Varchar	200	Not Null	Mode of Transaction / Payment
Trn_reference_id	Varchar	15	Not Null	Reference number of Transaction
Trn_Status	Varchar	200	Not Null	Status of the Transaction

15. Table Name : tblComplain_Type

tblComplain_Type				
Field Name	Datatype	Size	Constraint	Description
Cmp_Type_id	Big Int	5	Primary Key	Unique id of Complain Type
Cmp_Type	Varchar	50	Not Null	SubType of Complain
ReC_Type	Varchar	50	Not Null	Type of Complain

16. Table Name : tblComplain

tblComplain				
Field Name	Datatype	Size	Constraint	Description
Cmp_id	Big Int	9	Primary Key	Unique id of Complain
Cmp_Type_id	Big Int	5	Foreign Key	Unique id of type of Complain
user_id	Big Int	7	Foreign Key	Unique id of Users
Cmp_Timestamp	DateTime		Current TS	Timestamp of Complain Generated

Cmp_Brief	Varchar	500	Not Null	Complain in Brief
Cmp_Remarks	Varchar	500	Null	Reply of the Complain
Cmp_Status	Varchar	50	Not Null	Status of the Complain
Cmp_ClosedBy	Big Int	7	Null	Id of staff who closed complain
Cmp_UpdatedTS	Timestamp		Current	Current TimeStamp

17. Table Name : tblRequest

tblRequest				
Field Name	Datatype	Size	Constraint	Description
Req_id	Big Int	9	Primary Key	Unique id of Request
Req_Type_id	Big Int	5	Foreign Key	Id of SubRequest Type
user_id	Big Int	7	Foreign Key	Unique id of Users
Req_Timestamp	DateTime		Not Null	Timestamp of Request Generated
Req_Brief	Varchar	500	Not Null	User Account Password
Req_Remarks	Varchar	500	Null	Reply of the Request
Req_Status	Varchar	50	Not Null	Status of the Request
Req_UpdatedBy	Big Int	7	Not Null	Id of staff who updated request
Req_UpdatedTS	TimeStamp		Not Null	Current TimeStamp

18. Table Name : tblFeedback

tblFeedback				
Field Name	Datatype	Size	Constraint	Description
Fdb_id	Big Int	9	Primary Key	Unique id of Feedback
user_id	Big Int	7	Primary Key	Unique id of Users
Fdb_Timestamp	DateTime		Not Null	Feedback Timestamp
Fdb_Brief	Varchar	800	Not Null	Feedback of the User

19. Table Name : tblEvent

tblEvent				
Field Name	Datatype	Size	Constraint	Description
Event_id	Big Int	8	Primary Key	Unique id of Events
Event_Name	Varchar	Max	Not Null	Name of the Event
Event_Date	DateTime		Not Null	Date and Time of the Event

20. Table Name : tblClub

tblClub				
Field Name	Datatype	Size	Constraint	Description
Club_id	Big Int	7	Primary Key	Unique id of Club
Club_Name	Varchar	100	Not Null	Name of the Club
user_id	Big Int	7	Foreign Key	Unique id of Users
staff_id	Big Int	7	Foreign Key	Unique id of Staff Member

21. Table Name : tblNotice

tblNotice				
Field Name	Datatype	Size	Constraint	Description
Notice_id	Big Int	9	Primary Key	Unique id of Notice
Notice_Brief	Varchar	Max	Not Null	Notice in Brief
user_id	Big Int	7	Foreign Key	Unique id of Users
Notice_Timestamp	Datetime		Not Null	Timestamp of Notice Generated

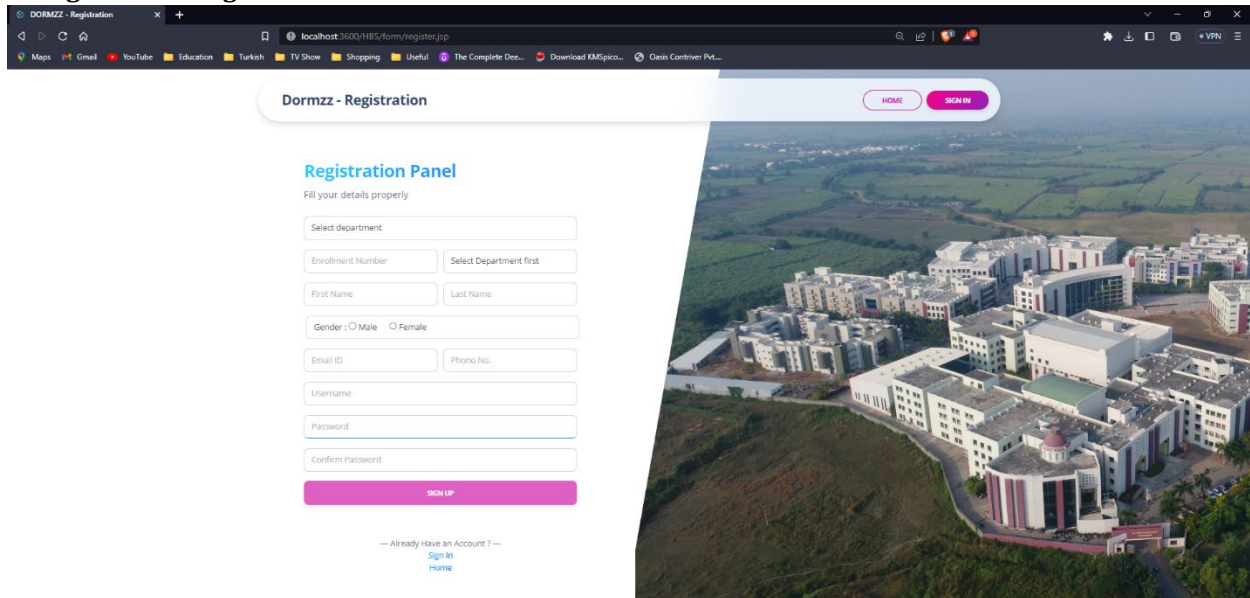
22. Table Name : tblLeave

tblLeave				
Field Name	Datatype	Size	Constraint	Description
Leave_id	Big Int	9	Primary Key	Unique id of Blog
User_id	Big Int	7	Foreign Key	Unique id of User
Leave_Reason	Varchar	100	Not Null	Title of the Blog
Leave_From	DateTime		Not Null	Timestamp of Leave Starting Day
Leave_To	DateTime		Not Null	Timestamp of Leave Ending Day
Leave_Status	Varchar	10	Not Null	Status of the Leave
Leave_Remarks	Varchar	500	Null	Remarks of Staff regarding leave
Leave_ApprovedBy	Big Int	7	Null	Id of Staff who approved Leave

5. System Implementation

5.1 Screenshots :

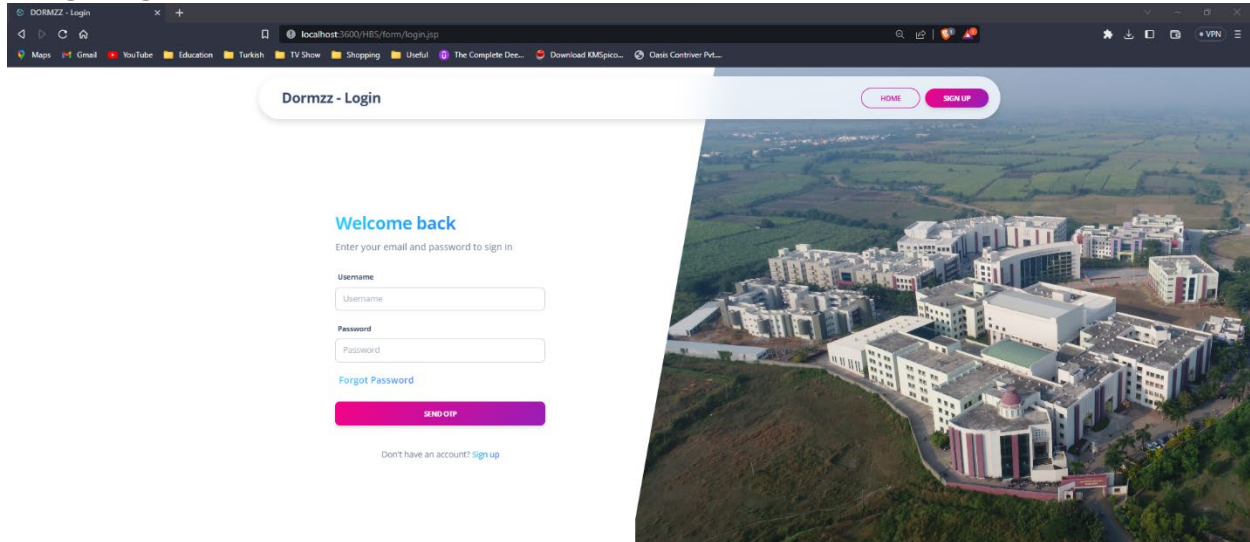
1. Registration Page :



The screenshot shows the 'Dormzz - Registration' page in a web browser. The page has a header with 'Dormzz - Registration' and navigation links for 'HOME' and 'SIGN IN'. The main content area is titled 'Registration Panel' and includes the instruction 'Fill your details properly'. The registration form consists of several input fields: 'Select department', 'Enrollment Number', 'Select Department first', 'First Name', 'Last Name', 'Gender' (with radio buttons for Male and Female), 'Email ID', 'Phone No.', 'Username', 'Password', and 'Confirm Password'. A 'SIGN UP' button is at the bottom of the form. Below the form, there is a link for 'Sign In' and a 'Home' link. The background of the page features an aerial view of a large, modern building complex.

Copyright © 2023 DORMZZ

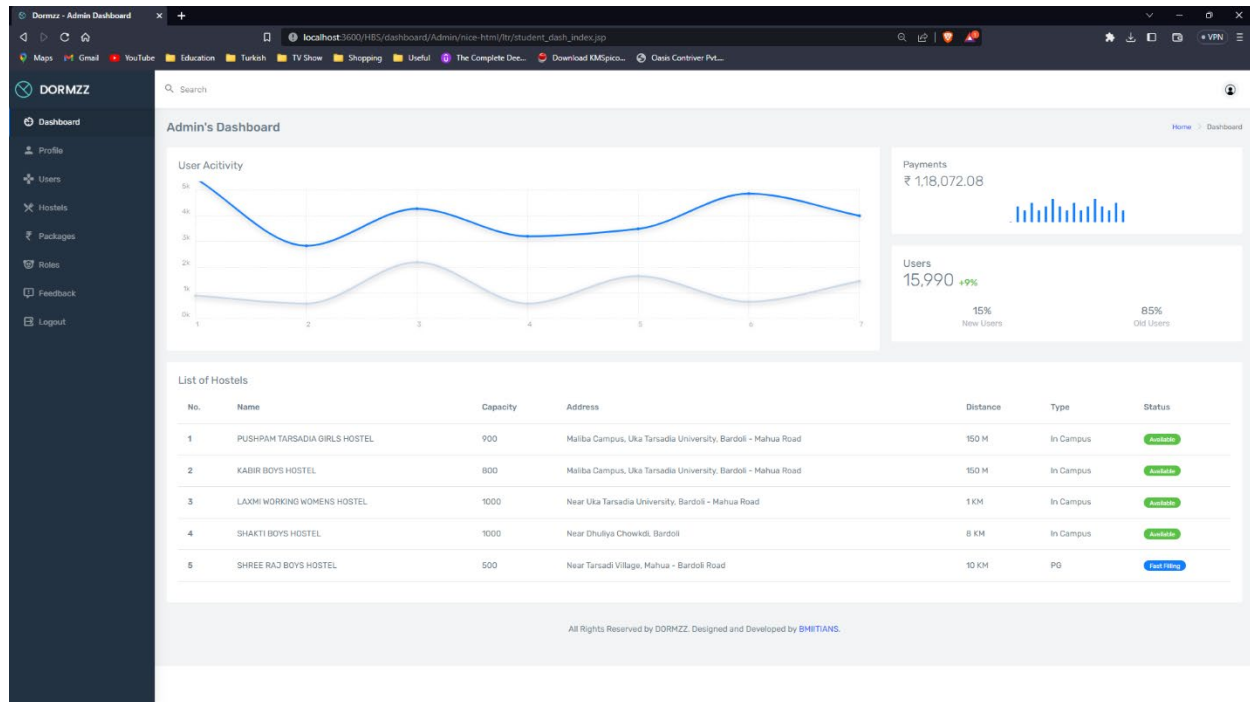
2. Login Page :



The screenshot shows the 'Dormzz - Login' page in a web browser. The page has a header with 'Dormzz - Login' and navigation links for 'HOME' and 'SIGN UP'. The main content area is titled 'Welcome back' and includes the instruction 'Enter your email and password to sign in'. The login form consists of two input fields: 'Username' and 'Password'. A 'Forgot Password' link is located below the password field. A 'SIGN UP' button is at the bottom of the form. Below the form, there is a link for 'Sign up' for users who don't have an account. The background of the page features an aerial view of a large, modern building complex.

Copyright © 2023 DORMZZ

3. Admin Dashboard :



4. Staff Management :

The Staff Management interface allows administrators to manage staff members and their roles. It includes a sidebar with navigation options: Dashboard, Profile, Users, Hostels, Packages, Roles, Feedback, and Logout. The main content area features a search bar, a designation management form, a role management table, and a staff management table.

Designation Management

The designation management form allows administrators to assign roles to staff members. It includes fields for Select Staff Member, Select Designation, and Select Hostel. A green message indicates that the designation was assigned successfully.

Role Management

The role management table lists available roles and their actions.

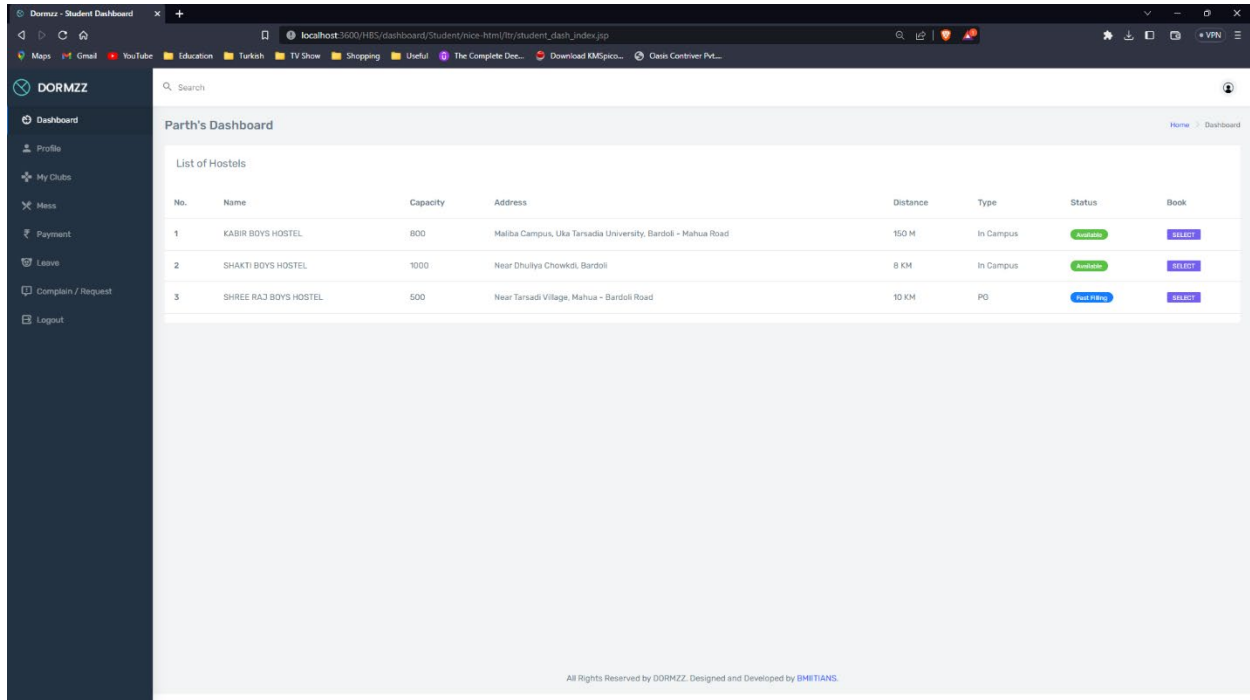
No.	Role	Action
1	Admin	Edit Delete
2	Rector	Edit Delete
3	Miss Chief	Edit Delete

Staff Management

The staff management table lists available staff members and their details.

No.	Role	Name	Staff ID	Email	Hostel	Department	Phone No.	Action
1	Admin	Parth Desai	1020301	parthdesai020@gmail.com	PUSHPAM TARSADIA GIRLS HOSTEL	Management	9925940273	Edit Delete
2	Admin	Pooja Patel	1020302	parthdesai020@gmail.com	PUSHPAM TARSADIA GIRLS HOSTEL	Management	N.A	Edit Delete
3	Miss Chief	Jay Patel	2020510001	parthdesai020@gmail.com	PUSHPAM TARSADIA GIRLS HOSTEL	Management	N.A	Edit Delete

5. Student Dashboard :

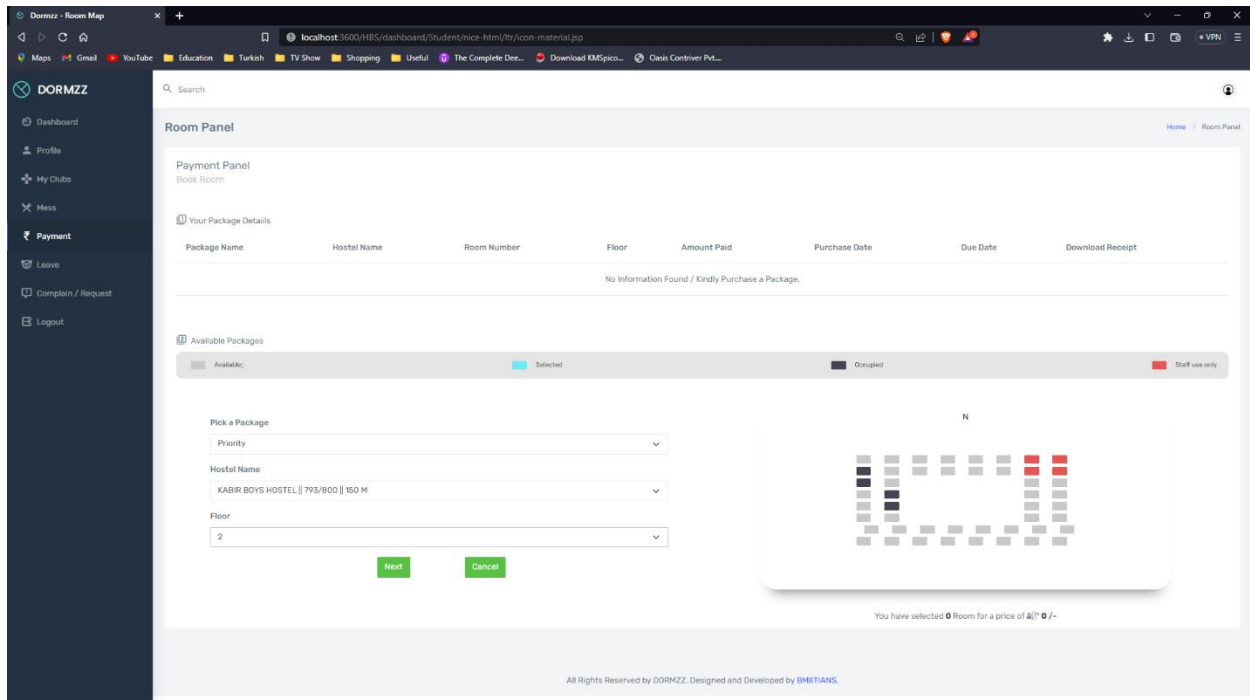


The screenshot shows the 'Parth's Dashboard' with a 'List of Hostels' table. The table has columns for No., Name, Capacity, Address, Distance, Type, Status, and Book. There are three rows of hostel data.

No.	Name	Capacity	Address	Distance	Type	Status	Book
1	KABIR BOYS HOSTEL	800	Maliba Campus, Uka Tarsadia University, Bardoli - Mahua Road	150 M	In Campus	Available	Book
2	SHAKTI BOYS HOSTEL	1000	Near Dhulys Chowkid, Bardoli	8 KM	In Campus	Available	Book
3	SHREE RAJ BOYS HOSTEL	500	Near Tarsadi Village, Mahua - Bardoli Road	10 KM	PG	Not in Range	Book

All Rights Reserved by DORMZZ. Designed and Developed by BMITIANS.

6. Room Booking :



The screenshot shows the 'Room Panel' with a 'Payment Panel' and 'Available Packages' section. The 'Payment Panel' has a table for package details, which is currently empty. The 'Available Packages' section includes a legend for room status (Available, Selected, Occupied, Staff use only) and a form to pick a package. The form includes fields for Priority, Hostel Name (KABIR BOYS HOSTEL), and Floor (2). A room selection grid is shown with a red square indicating a selected room. A confirmation message states: 'You have selected 0 Room for a price of ₹0/-'.

All Rights Reserved by DORMZZ. Designed and Developed by BMITIANS.

7. Student Leave Panel :

Leave Panel

Apply Leave
Manage Leave

[Apply Leave](#)

Applied Leaves

No.	Start Date	End Date	Reason	Status	Remark	Action
1	2023-05-05 08:30:00	2023-05-05 17:39:00	Going for Blood Donation	Pending	-	Edit Delete

All Rights Reserved by DORMZZ. Designed and Developed by BMITIANS.

8. Student Mess Panel :

Mess Panel

Mess Corner
Daily Menu

Mess Information

Hostel Name	Mess Name	Mess Chief	Mess Hours
KABIR BOYS HOSTEL	KABIR MESS	Jay Patel	7:30 AM - 10:00 PM

Today's Menu

No.	Morning	Afternoon	Evening	Night
1	Pulak paneer	Pakora	Achar	Chutneys
2	Dal makhani	Yeg Biryani		Butter Roti
3		Aloo gobi		Paratha
4		Crisp papadum		Aloo Tikka
5				Dal Fry

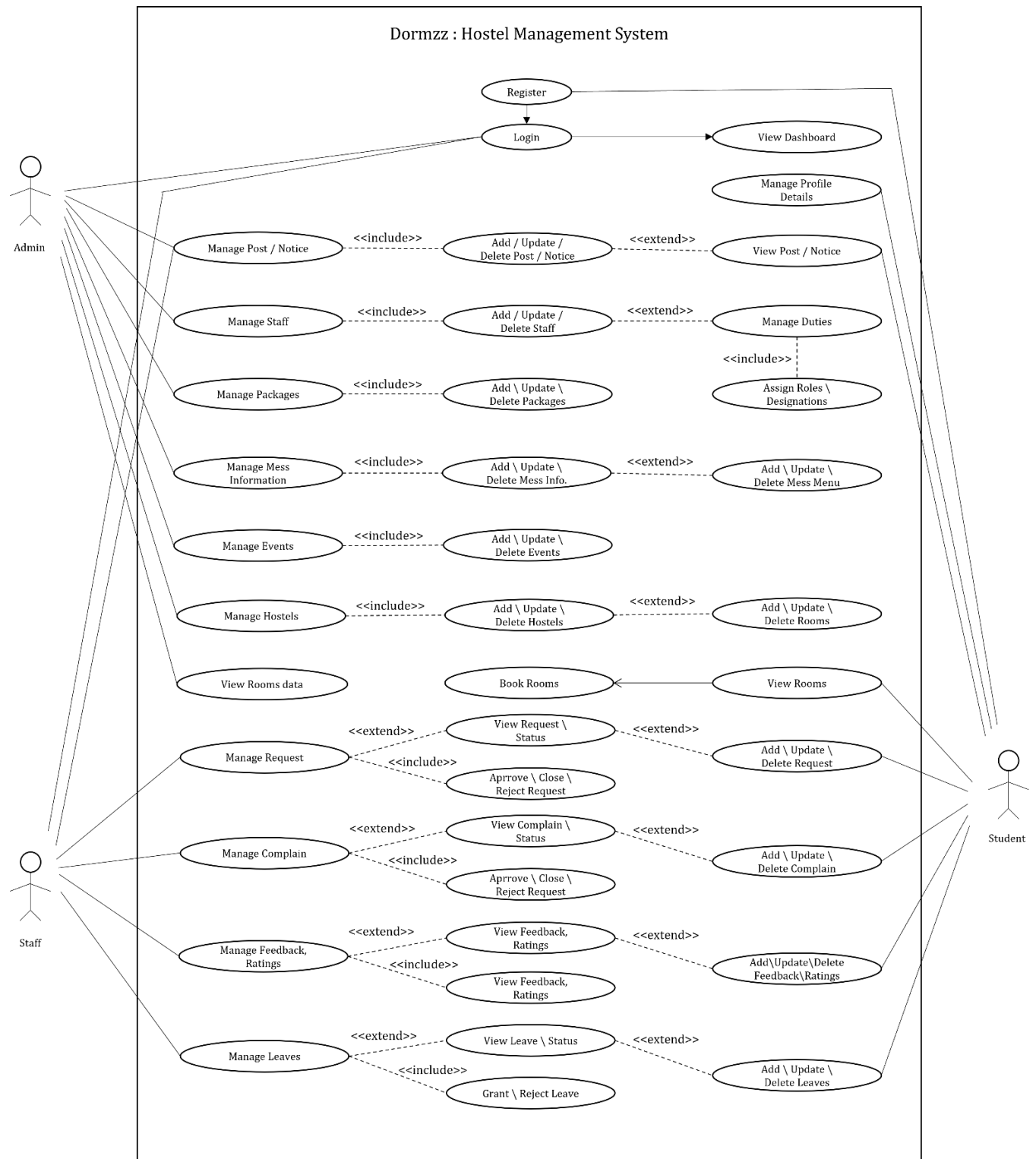
All Rights Reserved by DORMZZ. Designed and Developed by BMITIANS.

9. Student Invoice Download :

The screenshot displays the DORMZZ web application interface. On the left is a dark sidebar with navigation links: Dashboard, Profile, My Clubs, Mess, Payment, Leave, Complain / Request, and Logout. The main content area is titled 'Room Panel' and includes a 'Payment Panel' section with a 'Book Room' link. Below this is a table titled 'Your Package Details' with columns: Package Name, Hostel Name, Room Number, Floor, Amount Paid, Purchase Date, Due Date, and Download Receipt. The table contains one row for a 'Private' package at 'KABIR BOYS HOSTEL' with a room number of 15, floor 01, and an amount of 49999.0. A 'Download' link is present in the 'Download Receipt' column. A 'Download File Info' modal is open in the center, showing the URL 'http://localhost:3600/HBS/InvoiceDownloader/Invoice_id=1', category 'Documents', and a file size of 38.74 KB. The modal also includes a 'Save As' field, a checkbox for 'Remember this path for "Documents" category', and buttons for 'Download Later', 'Start Download', and 'Cancel'. At the bottom of the page, a footer states 'All Rights Reserved by DORMZZ. Designed and Developed by BMITIANS.'

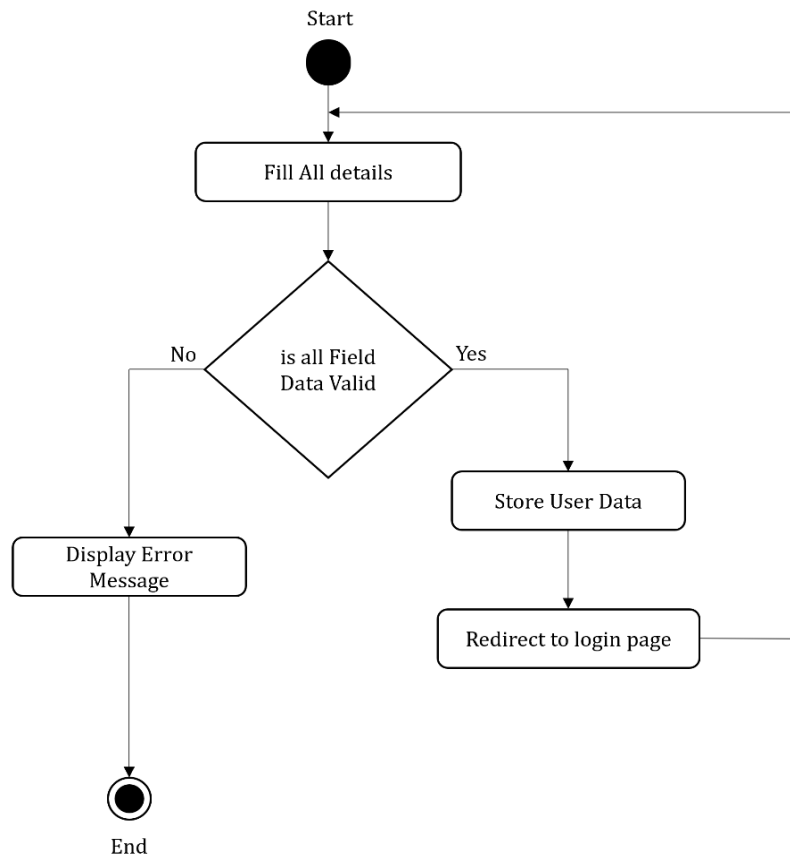
Package Name	Hostel Name	Room Number	Floor	Amount Paid	Purchase Date	Due Date	Download Receipt
Private	KABIR BOYS HOSTEL	15	01	49999.0	2023-04-23 23:49:43	2023-09-20 12:00:00	Download

5.1.1 Use-case Diagram :

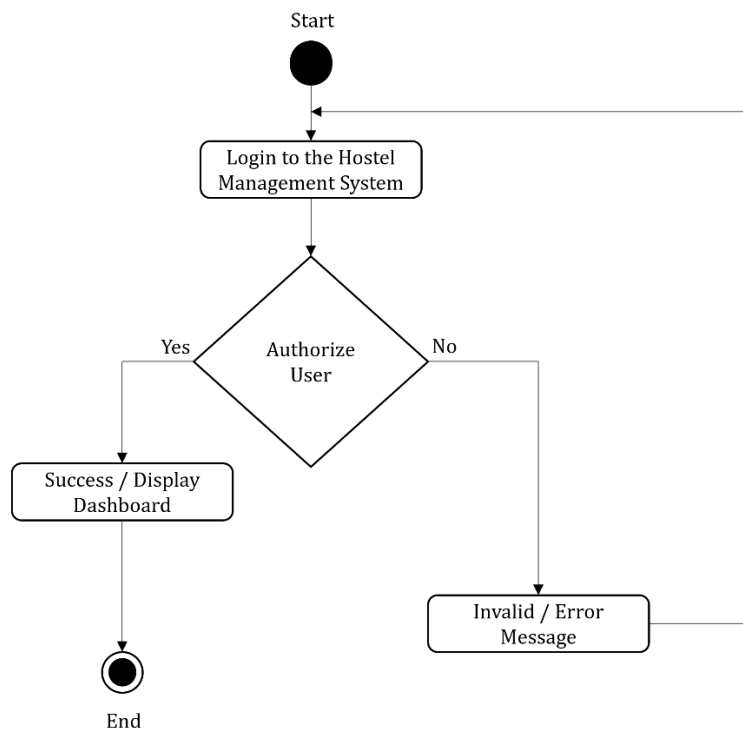


5.2.1 Activity Diagram :

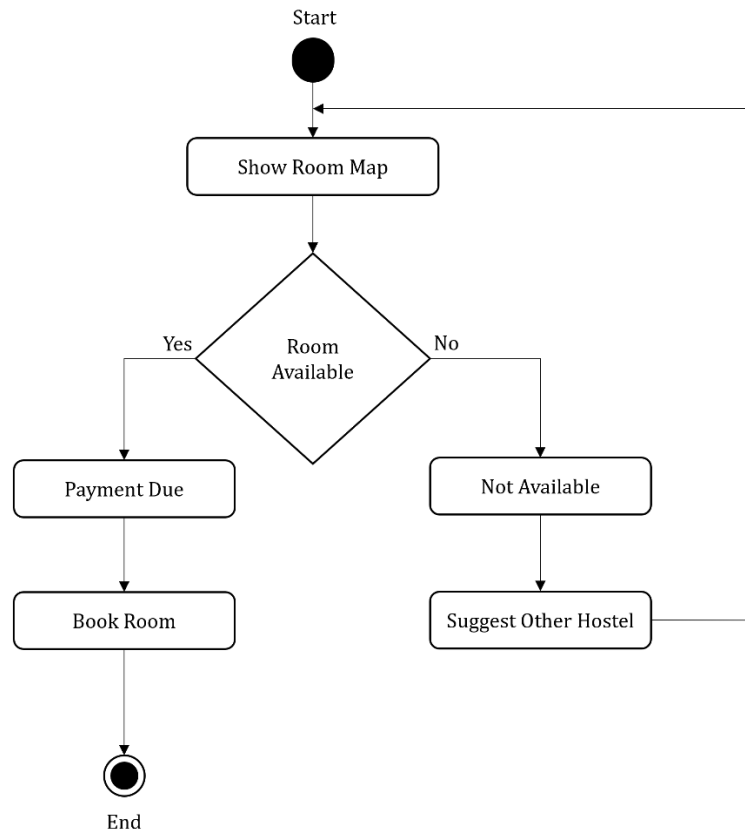
Activity : Register



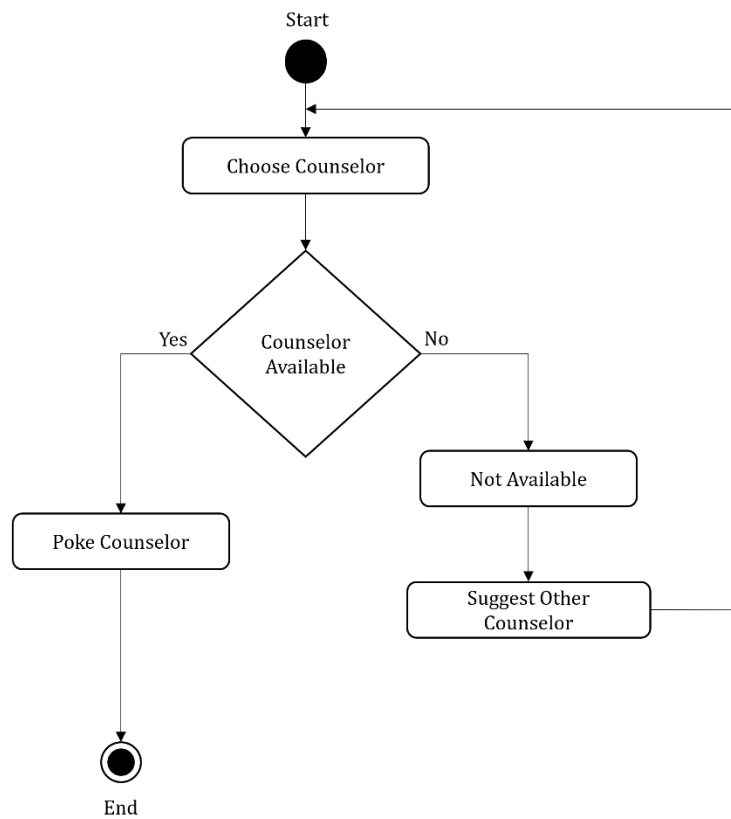
Activity : Login into the System



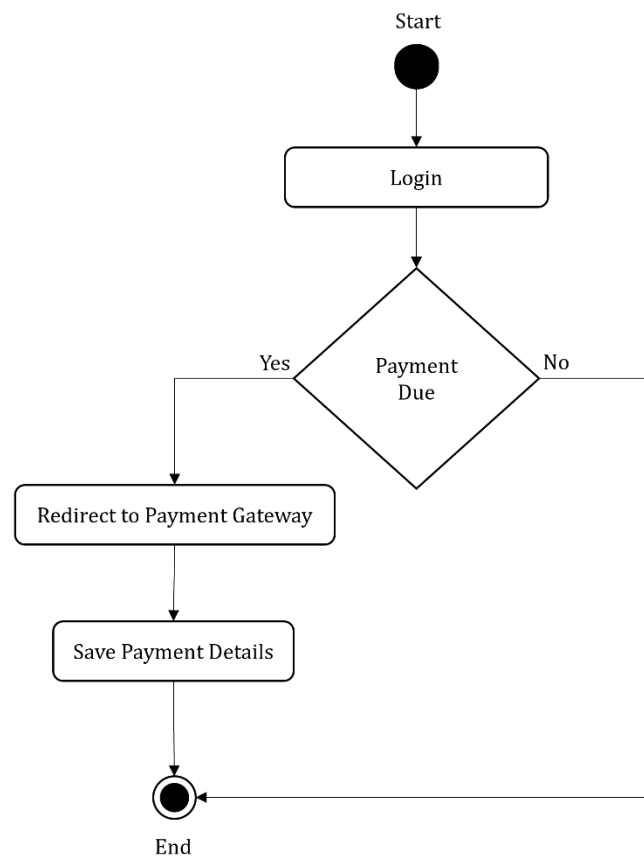
Activity : Book Room



Activity : Counseling



Activity : Payment



6. Testing

6.1 Test Case :

1. Register

TestCase ID	TestCase Description	Input - n (n = 1,2, ..., 11)	Expected Result	Remark
TU0001	All Fields Valid	Valid	Redirect to Login Page	-
TU0002	At Least one Field is Invalid	Invalid	Error Message. Redirect to Register Page.	At least one field is invalid as per it's type.

2. Login

TestCase ID	TestCase Description	Input - 1	Input - 2	Input - 3	Expected Result	Remark
TU0003	Login into the System	Valid	Valid	Valid	Open Dashboard	-
TU0004	All Credentials are Invalid	Invalid	Invalid	Invalid	Display Error Message	Invalid Credentials
TU0005	Username is Invalid	Invalid	Valid	Valid	Display Error Message	Invalid Username
TU0006	Password is Invalid	Valid	Invalid	Valid	Display Error Message	Invalid Password
TU0007	OTP is Invalid	Valid	Valid	Invalid	Display Error Message	Invalid OTP

3. Add / Update Staff Member

TestCase ID	TestCase Description	Input - 1	Input - 2	Input - 3	Input - 4	Input - 5	Input - 6	Input - 7	Expected Result	Remark
TU0011	Add Staff	Valid	Valid	Valid	Valid	Valid	Valid	Valid	Staff member Added	Initially No Designation is Assigned
TU0012	Username is already	Invalid	Valid	Valid	Valid	Valid	Valid	Valid	Error Message.	Must use unique

	used									username
TU0012	All Fields are invalid	Invalid	Invalid	Invalid	Invalid	Invalid	Invalid	Invalid	Error Message.	Must Enter all Fields.

4. Assign Designation

TestCase ID	TestCase Description	Input - 1	Input - 2	Input - 3	Expected Result	Remark
TU0008	Designation is Not assigned	Valid	Valid	Valid	Designation Assigned	-
TU0009	Same Designation is assigned	Valid	Valid	Valid	Warning Message.	Designation Already Assigned
TU0010	Different Designation is assigned	Valid	Valid	Valid	Designation Updated	Different Designation was Assigned

5. Room-Map

TestCase ID	TestCase Description	Input - 1	Input - 2	Input - 3	Input - 4	Expected Result	Remark
TU0011	Room-Booking	Valid	Valid	Valid	Valid	Redirect to Payment Gateway	-
TU0012	Package is not Selected.	Invalid	Valid	Valid	-	Warning Message.	Must Select Package
TU0013	Hostel is not Selected.	Valid	Invalid	-	-	Floors and Room-map not displayed	Must Select Hostel
TU0014	Hostel is not Selected.	Valid	Valid	Invalid	-	Room-map not displayed	Must Select Hostel Floor

7. Future Enhancement

Hostel Management System can be upgraded to a very large scope for expansion in the near future. The Dormzz can be upgraded and developed to maintain Hostels of other Nationwide Institutes as well. The system could be upgraded to have and maintain multiple Institutes' data, generate reports and serve its core purpose to the students accordingly. It could be made more flexible, user friendly with attractive UI and general by making it common for other similar institutions i.e. Nationwide Multiple institutions can work accordingly on the platform.

Conclusion

From going over this whole project development process we can get assurance that system just works amazing by bringing both students and Hostel Staff together as a Hostel is an essential part of an Institute along with educational curriculum which provides all the useful privileges to find a Hostel and book a place of their own terms that comforts them.

By digitizing the work, it will create a better workflow and we hope this system becomes useful in real world application.

Bibliography

1. Marty Hall, Larry Brown - Core Servlets and Java Server Pages Volume – 1, Pearson Education [JSP]
2. Matthew MacDonald – Pro ASP.NET 4 in C# 2010, Apress [ASP]

Other Reference:

1. Dave Mercer - ASP.NET – A Beginner's Guide – TMH
2. Luke Welling and Laura Thompson - PHP and MYSQL Web Development, Second edition – Sams Publishing
3. Web Application Lifecycle - The Java EE 6 Tutorial (oracle.com)
4. Implementing Intercepting Filter in ASP.NET Using HTTP Module | Microsoft Docs
5. http://api.jquery.com/Ajax_Events/
6. <https://learn.jquery.com/ajax/jquery-ajax-methods/>
7. <https://business.paytm.com/docs>

- Thank you -