Dynamic Room Allocation and Online Check-in Check-Out form to Hostel

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ABSTRACT: The system is designed in favour of the Hostel Management which helps them to save the records of the students about their outings, cleaning status, notice board and complaint box. Manually it is very difficult to find the records of the particular student which involves lots of efforts. identification of the problems of the existing Hostel Management leads to the development of computerized solution that will be compatible to the existing hostel management with the solution which is more user friendly and more graphical user interface(GUI) oriented. hence we can improve the efficiency of the hostel management to overcome the drawbacks of existing management.

KEYWORDS: OTP, Outing form, Username, password.

I. INTRODUCTION

As the name specifies "HOSTEL MANAGEMENT SYSTEM" is a software developed for managing various activities in the hostel. For the past few years the number of educational institutions is increasing rapidly. Thereby the number of hostels is also increasing for the accommodation of the students studying in an institution. This system is designed in favour of hostel management which helps them to save the records of the students. It helps them from the manual work from which it is very difficult to find the record of the students and the information of those students who have left the hostel. All the hostels at present 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 repetition which can be easily avoided. And hence there is a lot of strain on the person who are running the hostel and software is not usually used in this contest.

 In existing system if a student needs to go out then student should take a form from warden then student fills it and the form must be submitted to both warden and security guards which is waste of time. So now we have developed an online check-in check-out form which can be filled anywhere and can be submitted to the warden. In the present scenario the problems of the student cannot reach the higher authority so in our project we designed an online complaint box which will be directly sent to admin as soon as they submit. In present scenario if there is meeting then warden needs to inform each and everyone so online notice board is introduced in our project.

1.1 Problem Statement
The main goal of this paper is to design a system for girls hostel which automates the activities of the hostel which provides online check-in checkout system and complaint box.

II. SYSTEM ANALYSIS

In the present scenario managing hostels is carried out manually. If we do it manually there will be a lot of confusion and complexity. In our hostel if a person needs to go out she needs to fill the form in three sections. If there is a lengthy queue in any of the sections or if the respective faculty is not available, then the person needs to wait. If there is a meeting, then warden needs to inform by knocking each and every room. In our hostel, everyday students should enter

manually about cleaning of the rooms which is very hectic. Complaints can't reach the higher authority in time and even the rooms are allocated to students in a manual process.

III.   PROPOSED SYSTEM

The drawback of the existing system is that it is very difficult to retrieve data from records it is difficult to handle the whole system manually and it is less accurate and to keep the data in records for further reference. The proposed system eliminates the drawbacks of existing system to a great extent and it provides security to data. In this paper, online check-in and checkout form has been designed which makes the student's work easier. Rooms are allocated dynamically without any human intervention. The complaints are dropped in an online complaint box which reaches the admin directly. Students can view online notice board and mess menu.

3.1 System architecture
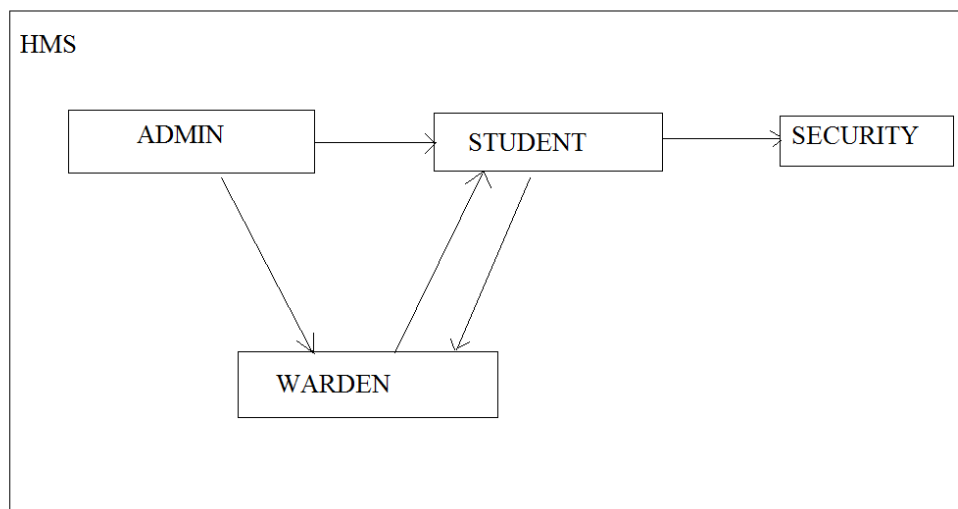
Admin can edit and modify the student and warden records. Admin takes care of problems in the hostel. Admin receives the complaints dropped by students. He allocates room dynamically for students who paid the fees. Each and every student who have authorized access can fill outing forms which will be sent to warden. Student can drop complaints in the online complaint box , they can also view mess menu and notice board updated by warden. Student sends information about room service to warden. Warden permits the students to go out who applied for outing and sends OTP to students which should be verified by security guard. Warden updates notice board which is viewed by students. Security will verify the OTP that is entered by the student.

IV.SYSTEM DESIGN AND SPECIFICATION

4.1 Class Diagram
In total there are four classes mainly - Admin, Warden, Student, Security. Each of the classes has 3 compartments. First compartment tells the name of the class, Second tells the attributes used in that class and third compartment tells about the functions used in that class. Admin class has login function which uses username and password attributes to login into Hostel Management System. Admin uses Warden name, phone number, address to register warden. warden class has login, receive outing form, update notice board, view cleaning status functions. Admin uses student name, usn, DOB, sem, phone number, parent name and parent phone number to register a student. Student class has login, send outing form, view notice board, view mess menu, drop complaints functions. student class has phone number as primary key. security class has login function which uses username and password. the function of security is that to

verify OTP.

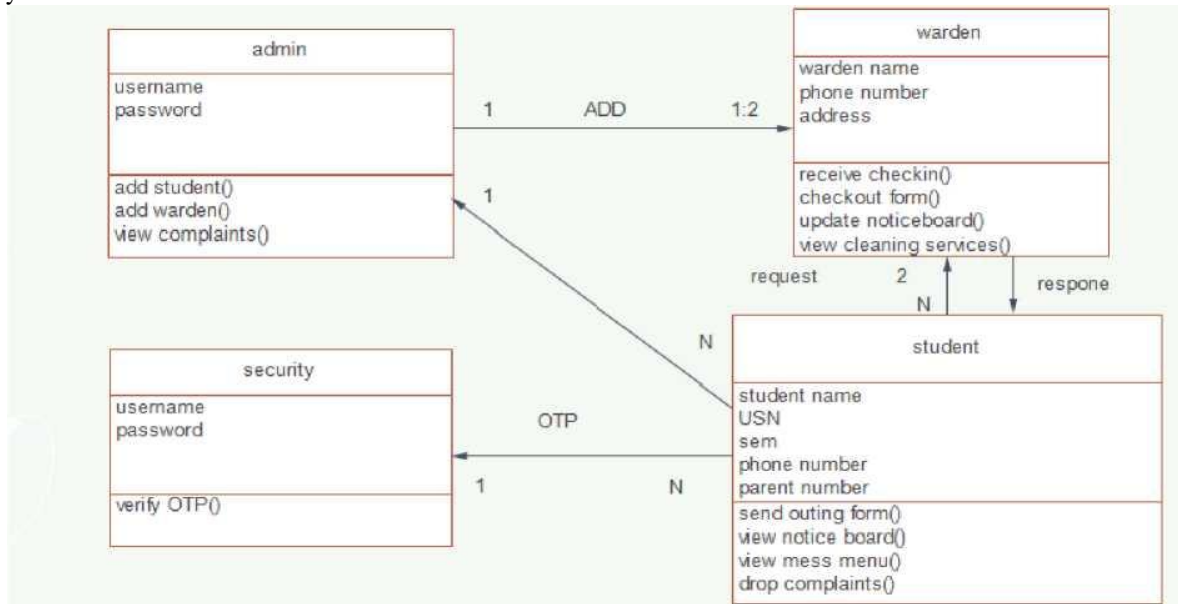
Fig 4.1 Class Diagram Of Hostel Management System

4.2 Functional Requirements:

These are the core factors those have direct impact on the functioning of the system.

Admin:

Input: username and password.

Output: Admin homepage.

Warden:

Input: username and password.

Output: Warden homepage.

Student:

Input: username and password.

Output: Student homepage.

Security:

Input: username and password.

Output: security homepage.

V. IMPLEMENTATION AND RESULTS

Our project is all about providing security, reducing time consumption and complexity of work. This project is hosted online and by typing the address of this website authenticated user can access the website. The project deals with mainly four modules such as admin, student, warden, security module.

Admin can be able to login in the website and he will add student by entering the details of the student simultaneously he can edit or delete the student records. In the same way he will add the warden. Admin is responsible for giving the authentication for student and warden. He will allocate room dynamically only for the registered student. He will view the complaints which are dropped by students.

Warden will login using the authentication which is given by the admin. Warden can view the outing list of the students and she will permit the student by seeking the permission from their respective parents and then she will send an OTP to the registered student phone number. If the student is late to the hostel immediately she will send an alert message to their registered parent phone number. So we are providing security to the parent as well as the student. Warden can update the notice board regarding any announcement in the hostel. Every day she will view the updates regarding room

services.

Student will login by using the authentication which is provided by the admin. Student can send an outing form by filling the details regarding their outing. They will get an OTP by the warden and this must be entered in security module. Student can drop a complaints. And they can view notice board regarding updates in hostel.

Security will verify OTP which is entered by the student if it's correct OTP then he will allow student to go out
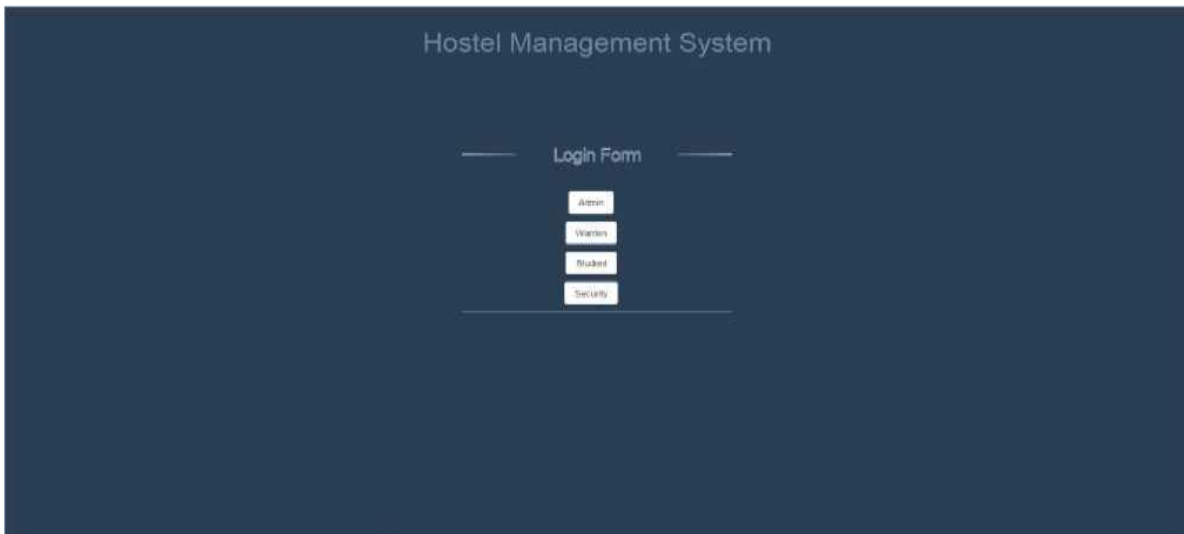
5.1.1 This is the homepage of our website it includes four modules login i.e. for admin, warden, student and security.
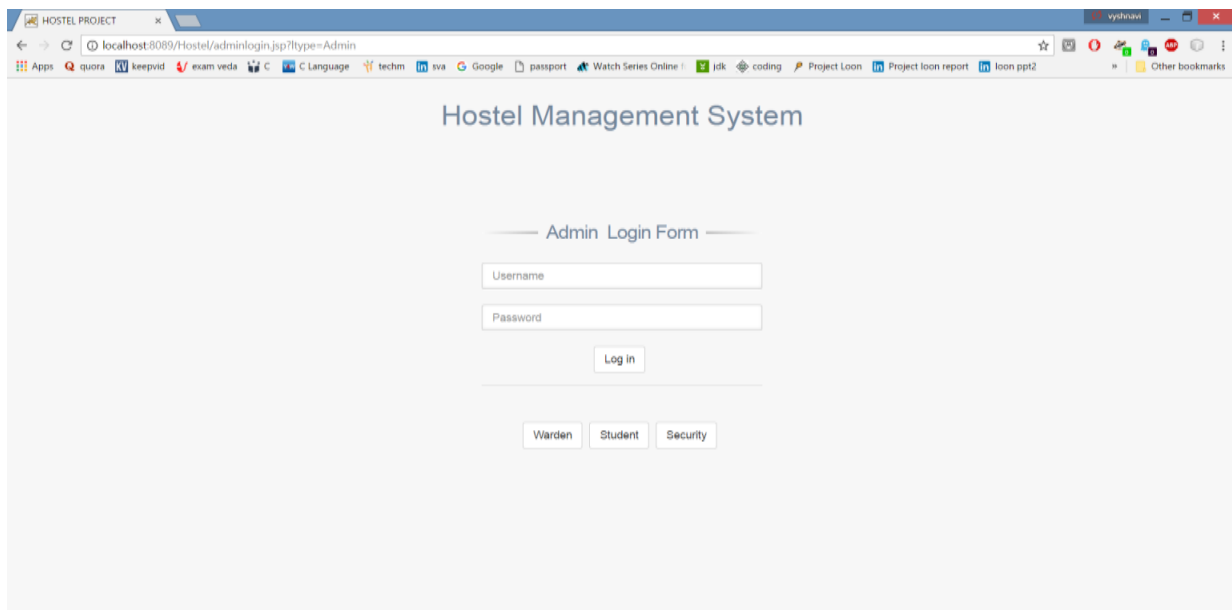
5.1.2 this is admin login page. He can login with username and password.
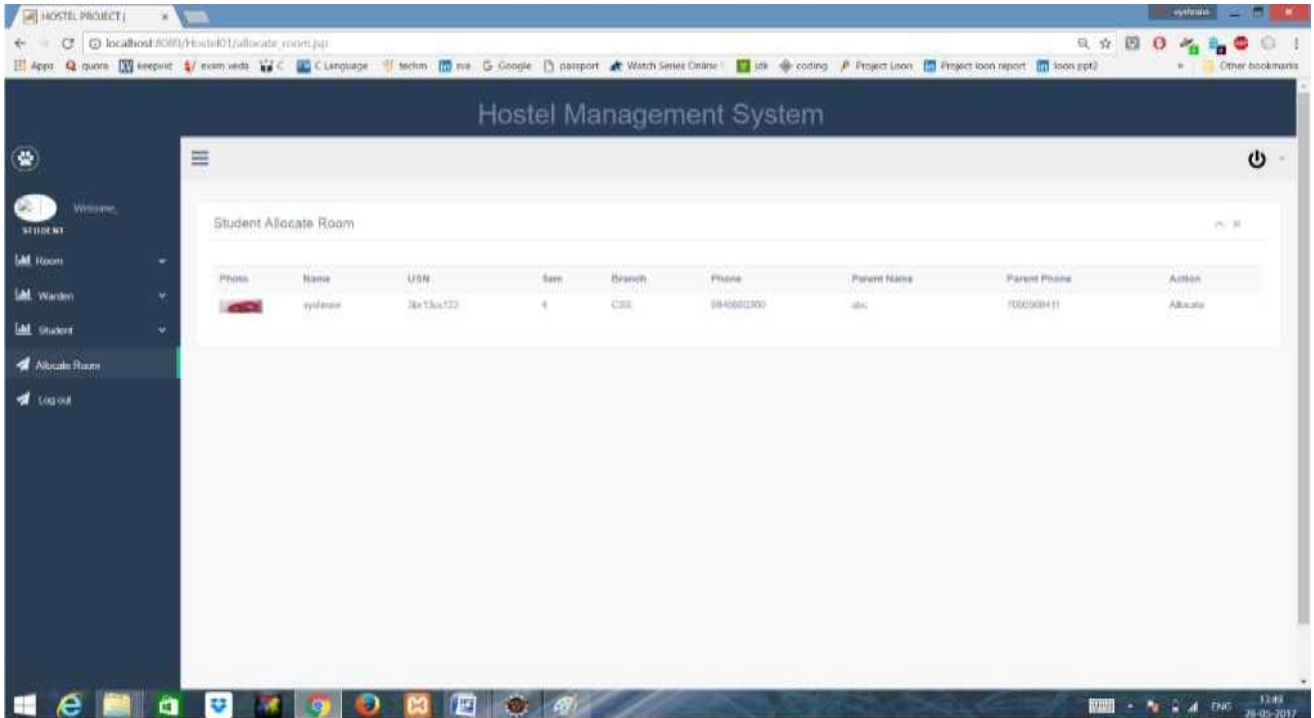
5.1.3 This is the page where admin can allocate rooms to the registered students.
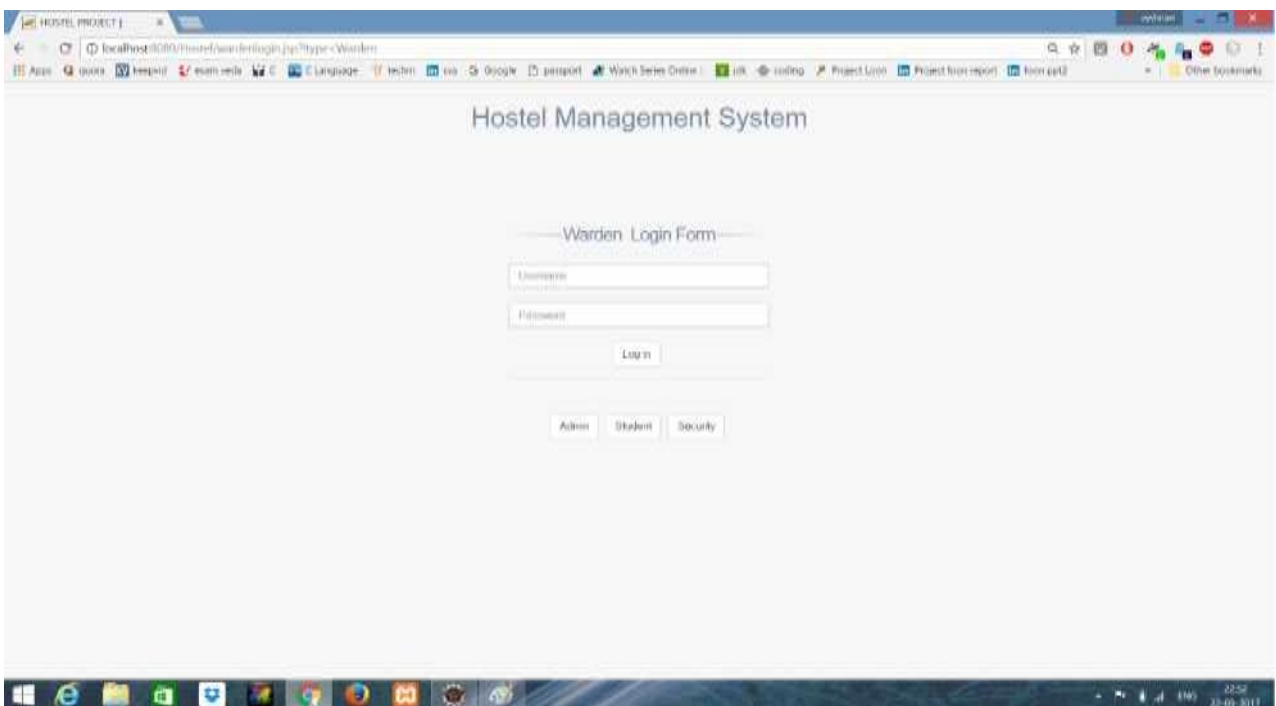
5.1.4 This is the login page for warden ,she can enter the page through her username and password
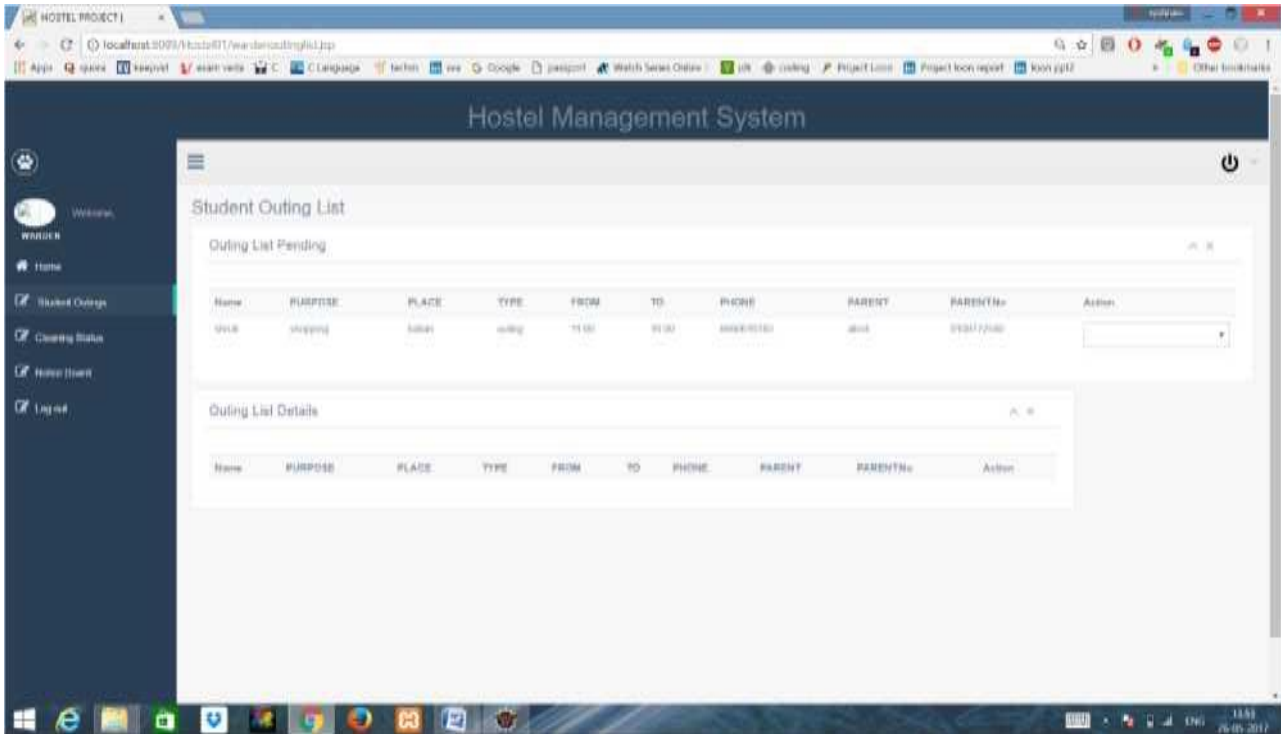
5.1.5 This is the student outing list which can be viewed by the warden and she grants permission after confirming with their parents.
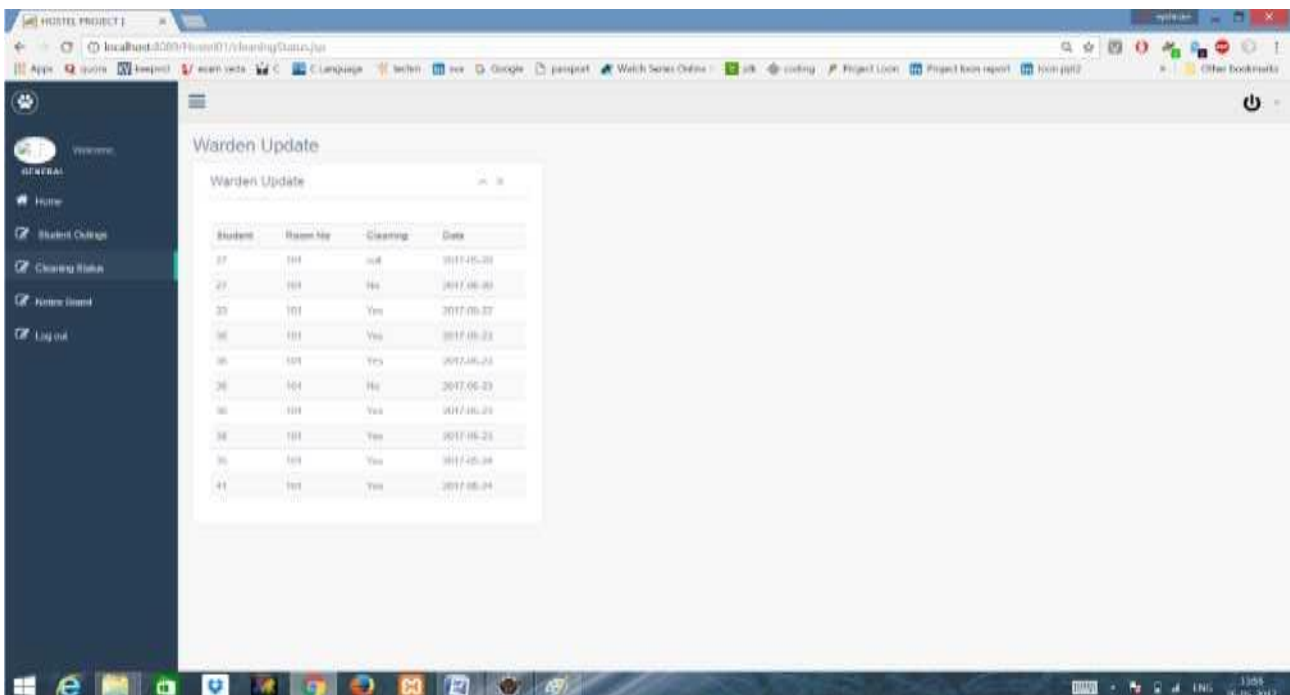
5.1.6 This the page where warden can view the cleaning status of room which is updated by the student.
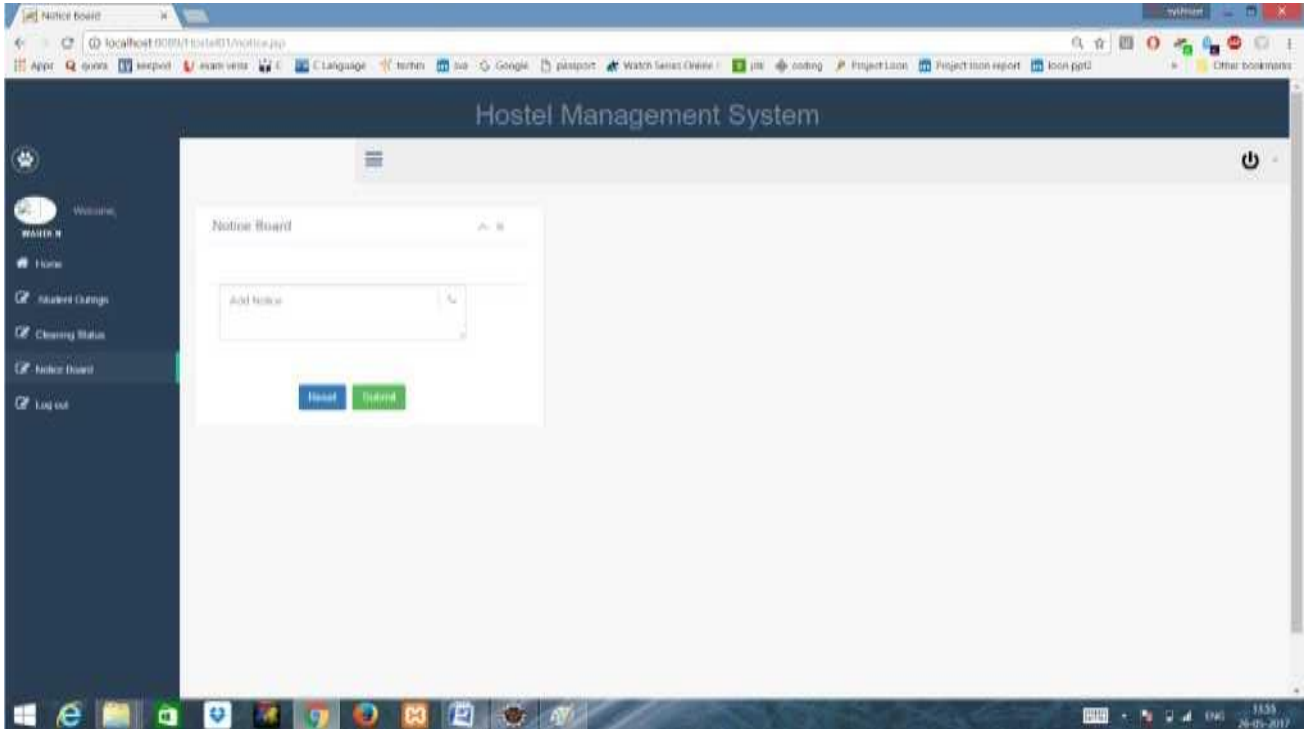
5.1.7 This is the page where warden will update the notice to students.
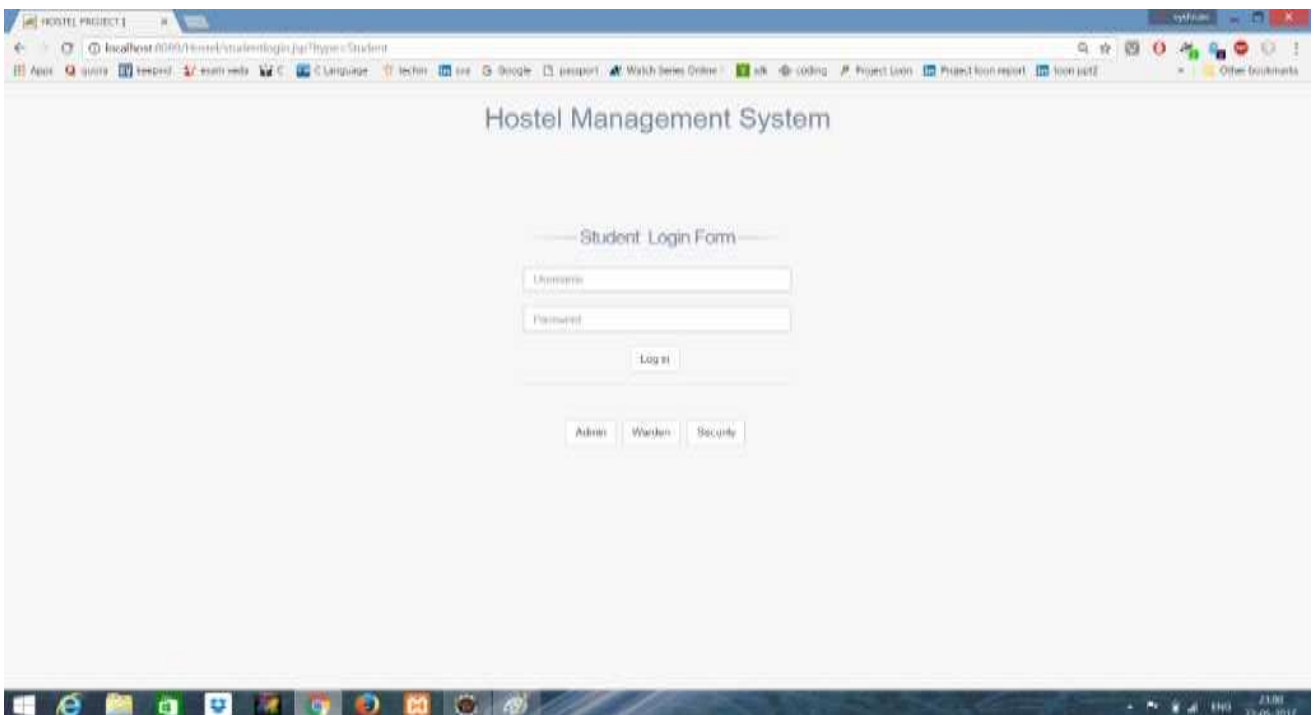
5.1.8 This is the student login form.
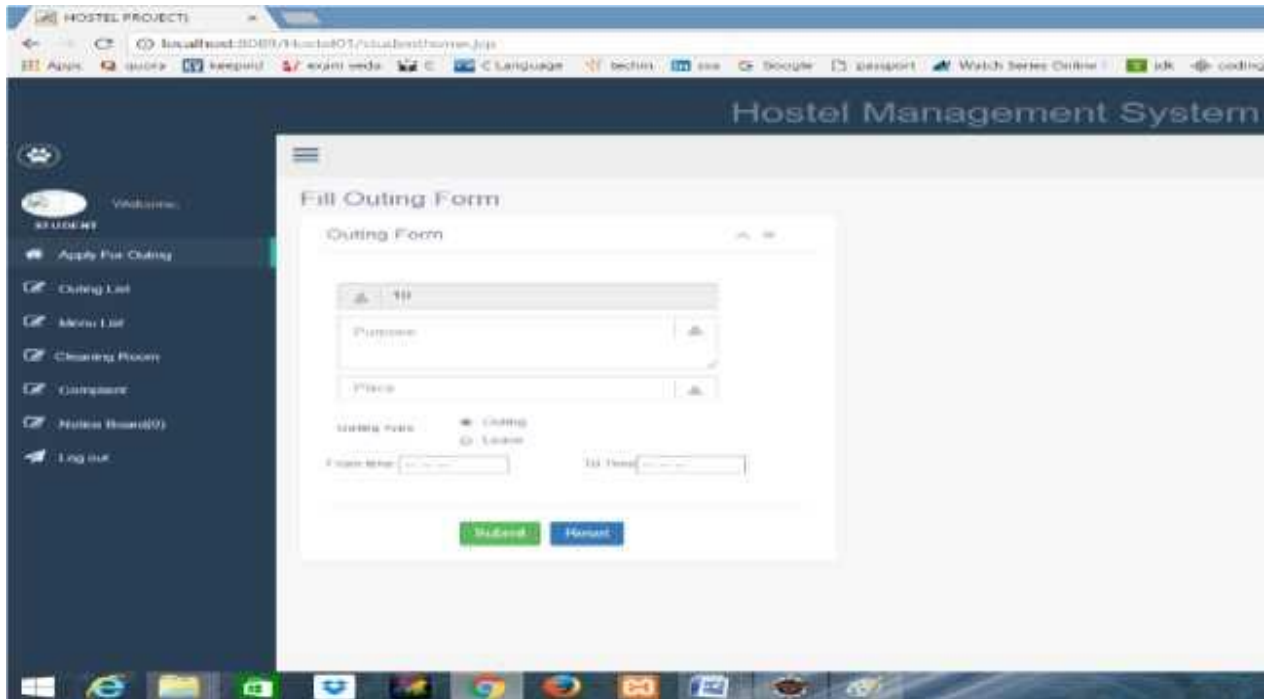
5.1.9 This is the online outing form that can be filled by students.
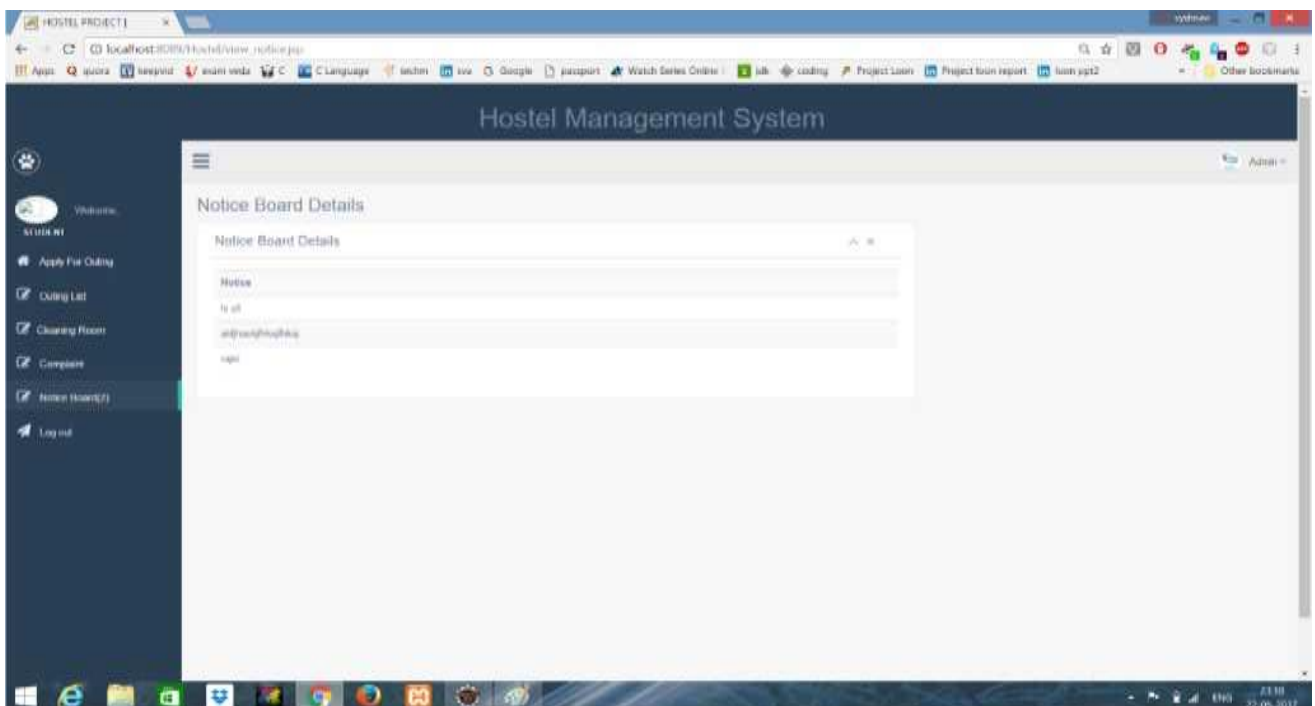
5.1.10 students can view the notice board that is updated by warden.

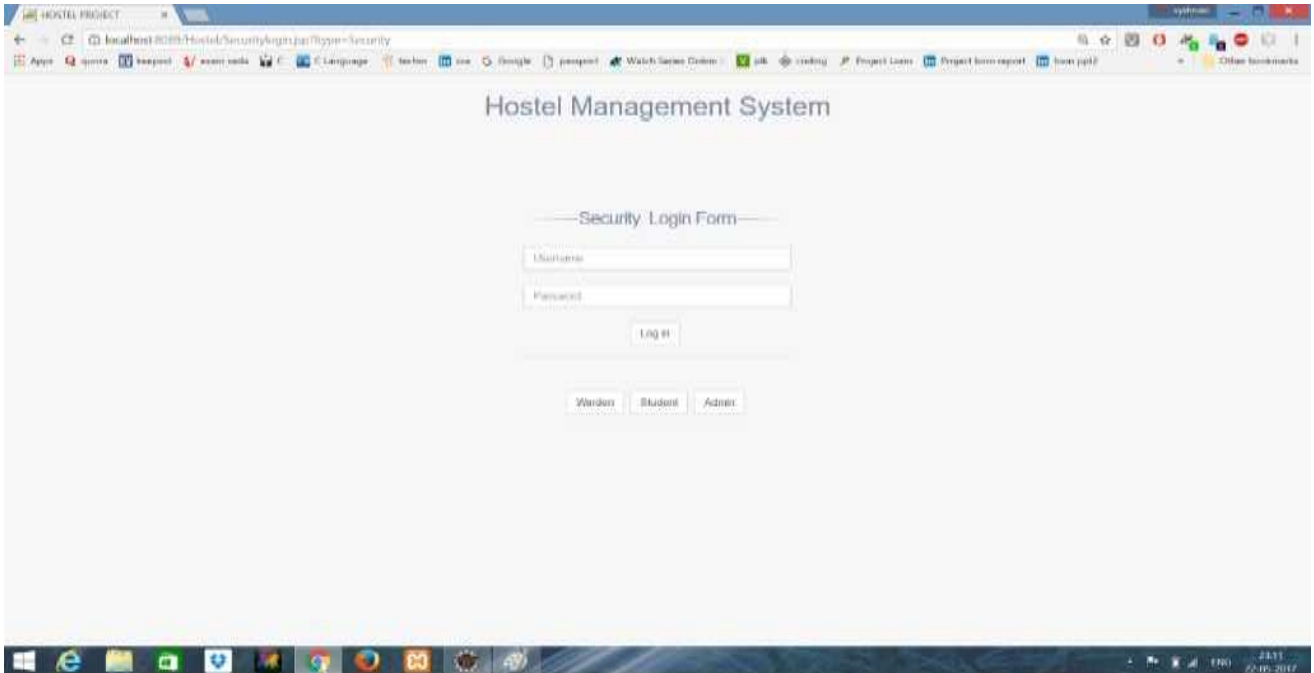5.1.11 this is security login page
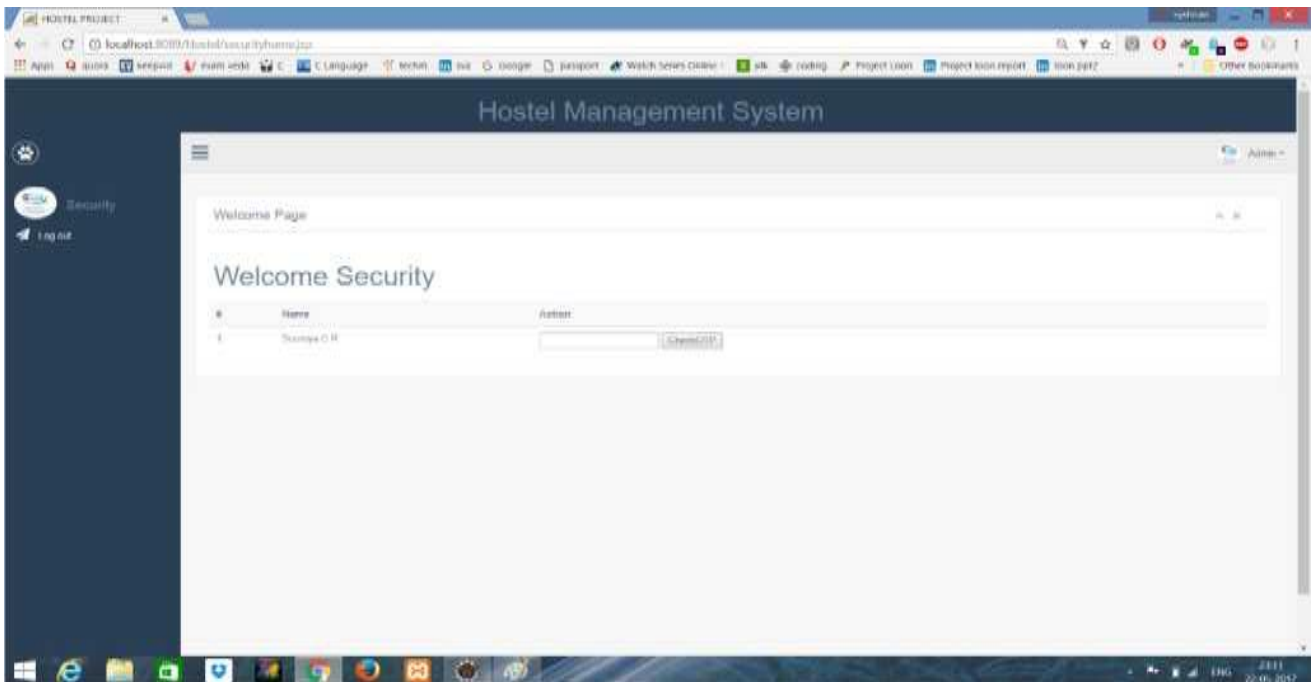
5.1.12 This is the page where security will verify OTP entered by students.

VI CONCLUSION

By implementing this project we will avoid manual work and pen and paper work. This paper consists online check-in and check-out form. The complaints can be directly dropped to admin so that admin can solve them. student can

view notice board if they are any notices by the warden. Student will update the room service status to the warden. It's a wonder full project if there is right internet connection.

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