
SOFTWARE REQUIREMENTS SPECIFICATION

for

Hostel Routine Portal

Version 1.1

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Revision History

Name	Date	Reason For Changes	Version
Hostel Routine Portal	28 Feb 2023	Original Draft	Version 1
Hostel Routine Portal	30 March 2023	Added images	Version 1.1

1 Introduction

1.1 Purpose

The purpose of this document is to present a detailed description of the web application Hostel Routine portal. It will explain the purpose and features of the application, the interfaces of the application, what the application will do and the constraints under which it must operate. This document is intended for users of the application and also potential developers.

1.2 Document Conventions

This Document was created based on the IEEE template for System Requirement Specification Documents. All diagrams in this document are numbered and have a descriptive caption or title. The document is organized into sections to make it easy to navigate and understand the requirements.

1.3 Intended Audience and Reading Suggestions

This SRS is for developers, users and testers. Further the discussion will provide all the internal, external, functional and also non-functional information about "Hostel Routine Portal". The website is designed to be user-friendly and intuitive, with a simple and clean user interface that makes it easy for users.

1.4 Project Scope

Hostel Routine Portal is an application where wardens can simply maintain student information and monitor daily attendance. It also makes it simple for the warden to grant a night out. Student can conveniently mark their in-out entries easily and able to apply for night-out. By replacing the time-consuming previous attendance system, our website benefits both parties.

2 Overall Description

2.1 Product Perspective

This application is created to simplify the lives of hostel wardens and students. Students can use a bio-metric device to record their attendance, and the information is immediately stored in a database. The primary objective of this project is to reduce the amount of effort and time needed to keep students' daily in-out logs.

2.2 User Classes and Characteristics

This project has basically 2 types of users.

- Warden
 - who maintain students information
 - grant night-out entries made by student
 - check daily attendance
- Students
 - able to quickly and efficiently mark in-out entries
 - able to submit application for night-out

2.3 Product Functions

- Marking attendance : By using bio-metric students able to mark in-out entries
- Users login : The application will allow users to login for their account.
- Apply for night-out : After login students able to apply for night-out if they want
- Check attendance : Wardens able to see daily attendance of students
- Permission for night-out : wardens are able to permit application for night-out for a particular and after permitting automatic email is going to his/her parents.
- Add new students : Warden able to make entries in database at time of allotment. If in middle of academic year, any new student taking hostel that entries also can be done by warden.
- View students information : Warden able to view information of any student.

2.4 Operating Environment

The website can be operate in -

- Windows 7
- Windows 8
- Windows 10
- Linux
- Mac Os X
- etc.

2.5 Design and Implementation Constraints

PHP and MySQL were used in the development of this portal, with HTML and CSS being used for the front end. In order to ensure the security and accuracy of attendance records, this application utilizes biometric authentication, which provides security and eliminates the possibility of attendance fraud.

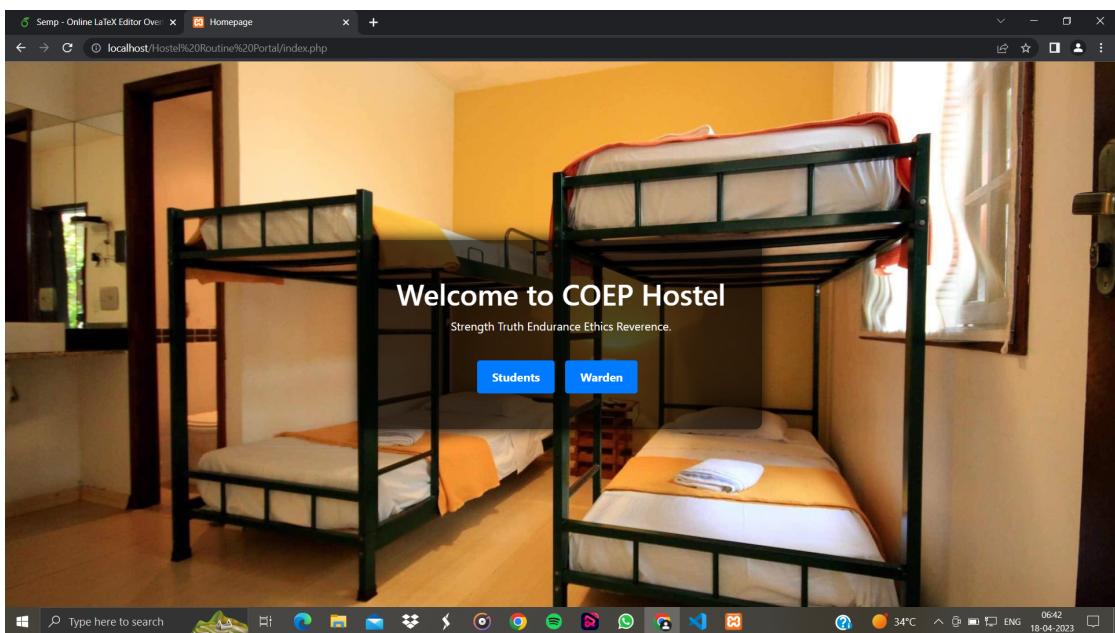
2.6 Assumptions and Dependencies

This website is assumed to have been developed using PHP programming language and relies on the implementation of biometric authentication technologies to ensure secure access to student data. It is also assumed that the acquisition of student biometric data has been conducted in accordance with established ethical and legal standards for data privacy and protection.

3 External Interface Requirements

3.1 User's interfaces

Homepage



Student:

Student login page and profile

The image shows two screenshots of a web application interface. The top screenshot displays the 'Student Login' page, which features a light blue header with the title 'Student Login'. Below the header are two input fields: one for 'MIS' containing the value '112003012' and another for 'Password' containing four asterisks. A green 'Login' button is positioned below these fields. To the right of the login form, there is a link 'Don't You Have an account?' and another link 'Contact Wardens'. The background of the login page is a photograph of a wooden desk with various items: a green book, a pine cone, a pair of glasses, a typewriter, a notebook, and a small box labeled 'COLOR SLIDES'. The bottom screenshot shows the 'student_info.php' page for the user with MIS 112003012. The page has a dark header with 'HOME' and 'MY ACCOUNT' links. The main content area has a green gradient background and displays a circular profile picture of a smiling woman holding a book. Below the picture, the name 'Prajakta Baad' is shown, along with her MIS number '112003012', room number 'No 615', email 'prajakta@gmail.com', parents' email 'pradip@gmail.com', and contact number '8830606530'. At the bottom of this section are two buttons: 'Nightout Application' and 'Check Nightout Status'. The bottom of the image shows a Windows taskbar with various icons and system status information.

Night out application page

The screenshot shows a web browser window with the title "Nightout Application". The page contains a form with the following fields:

- Name**: Enter your name
- MIS**: Enter your MIS
- Room No**: Enter your Room no
- Email**: Enter your email
- Parent's Email**: Enter your parent's email
- Address**: Enter your Address
- Contact**: Enter your Contact
- From**: dd-mm-yyyy

Below the form, there is a file upload section with three files listed: "Lady_1_0.jpeg", "photoUpload.jpg", and "images.jpg". The browser's address bar shows the URL "localhost:Hostel%20Routine%20Portal/nightout_app.php". The taskbar at the bottom of the screen shows various application icons.

Warden:

Warden login page and profile:

The screenshot shows a web browser window with the title "Warden Page". The page displays a welcome message for "KAVITA SABALE" and a "LOGOUT" link. Below this, there is a "Coep Hostel" logo with the tagline "Strength Truth Endurance Ethics Reverence.". A circular profile picture of Kavita Sabale is shown, along with her name and contact information:

Kavita Sabale
Email: sabale@gmail.com
Contact: 9874561230

At the bottom of the page, there is a copyright notice: "All rights reserved © - Hosted by Nitinayat". The browser's address bar shows the URL "localhost:Hostel%20Routine%20Portal/warden_info.php". The taskbar at the bottom of the screen shows various application icons.

New entry page

The screenshot shows a "Student Registration" form with various input fields:

- Name:** Enter your name
- MIS:** Enter your MIS
- Room No:** Enter your Room no
- Email:** Enter your email
- Parent's Email:** Enter your parent's email
- Student Image:** Choose File | No file chosen
- Student Fingerprint:** Choose File | No file chosen
Please upload a clear image of the student's fingerprint.
- Password:** Enter your password

Below the form, the Windows taskbar is visible, showing icons for Lady_1_0.jpeg, photoUpload.jpg, images.jpg, and various system icons like battery level, temperature (35°C), and date/time (18-04-2023).

Night out approval page

The screenshot shows a "NightOuts" section with a table of approved entries:

Sno	MIS	Name	Room No.	From	To	Address	Status	Confirmation
1	112003012	Prajakta Baad	509	2023-05-16	2023-05-23	Nashik	Approved	Done
2	112003012	Prajakta	509	2023-04-13	2023-04-29	Latur	Approved	Done
3	112003071	Shradha Kolhe	402	2023-04-16	2023-04-25	Parbhani	Approved	Done
4	112003071	Shradha Kolhe	401	2023-04-23	2023-04-24	Niphad	Approved	Done
5	111903052	Nirlepa Shinde	615	2023-04-15	2023-04-17	Niphad Nashik	Approved	Done

Below the table, the Windows taskbar is visible, showing icons for Lady_1_0.jpeg, photoUpload.jpg, images.jpg, and various system icons like battery level, temperature (35°C), and date/time (18-04-2023).

Attendance page

3.2 Software Interfaces:

- Operating system : Windows 10
- Front End : HTML, CSS
- Back End : php
- Database : MySQL
- IDE : VS code, Arduino IDE/NodeMCU
- Others : Xampp-local web server

3.3 Hardware interfaces:

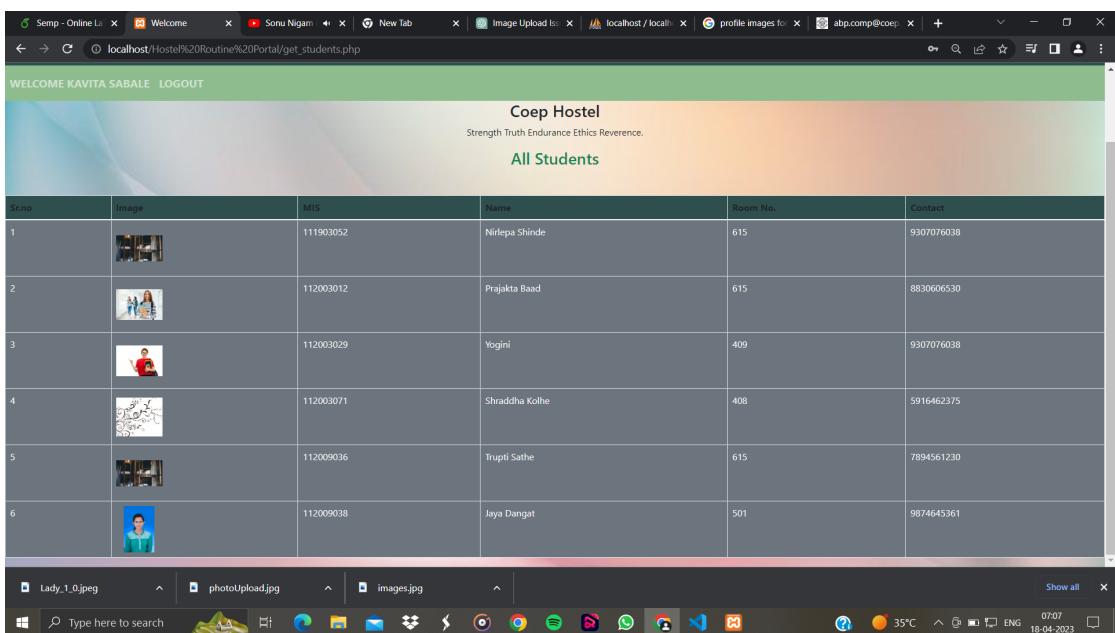
- Processor: Intel i5
- RAM : 4 GB (min)
- Hard Disk : 20 GB
- Others : Sensor(R305/R307), Arduino(uno), Breadboard, Connecting Wires, Potentiometer 10K (else we can use android as bio-metric device)

4 System Features

The majority of an application's features are shown in this area, along with instructions on how to use them and the outcomes they will provide for the user.

4.1 Attendance marking

4.2 Displaying details



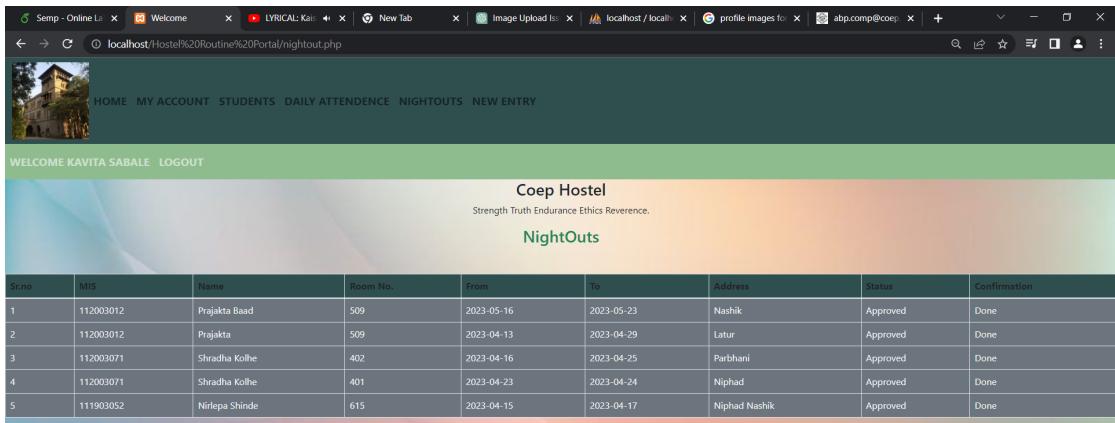
The screenshot shows a web browser window displaying a student list from a database. The title bar indicates the page is at `localhost/Routine%20Portal/get_students.php`. The header includes the text "WELCOME KAVITA SABALE LOGOUT" and "Coep Hostel" with the motto "Strength Truth Endurance Ethics Reverence". A green banner below the header says "All Students". The main content is a table with the following data:

Sr.no	Image	MIS	Name	Room No.	Contact
1		111903052	Nirlepa Shinde	615	9307076038
2		112003012	Prajakta Baad	615	8830606530
3		112003029	Yogini	409	9307076038
4		112003071	Shraddha Kolhe	408	5916462375
5		112009036	Trupti Sathe	615	7894561230
6		112009038	Jeya Dangat	501	9874645361

Displaying all students details.

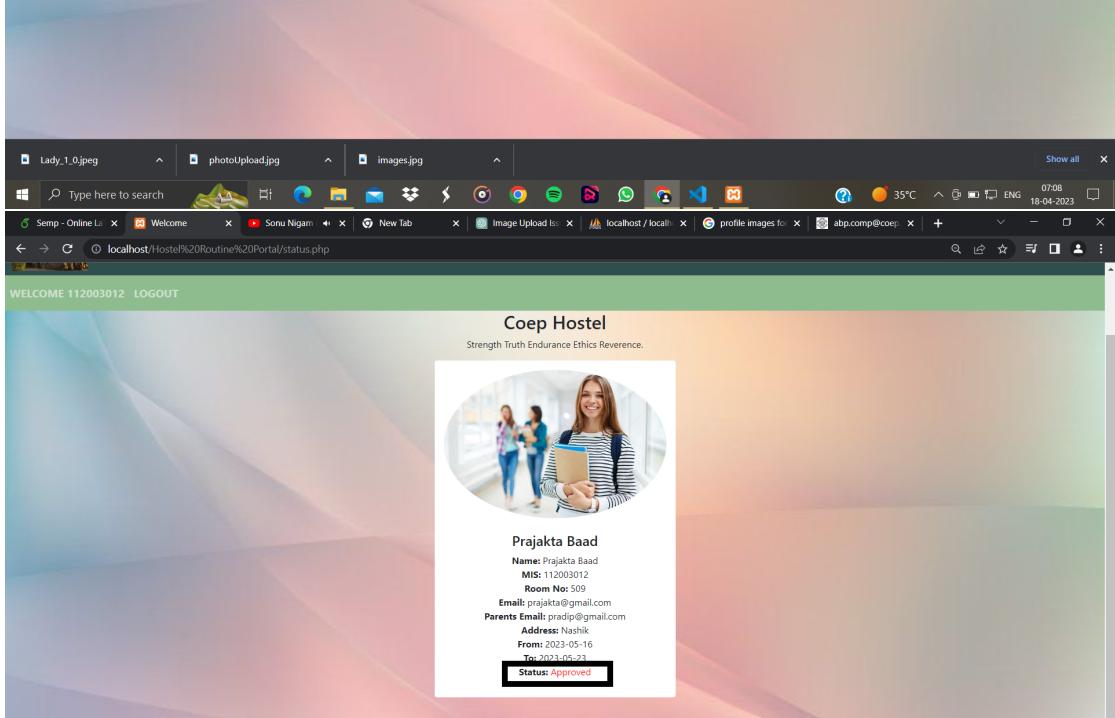
4.3 Displaying daily attendance

4.4 Application and approval of night-out



The screenshot shows a web application titled "Coep Hostel" with the tagline "Strength Truth Endurance Ethics Reverence". The page displays a table of nightout applications:

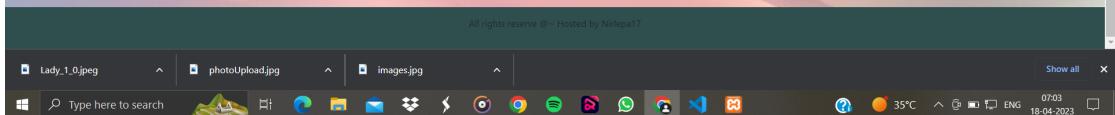
Sr.no	MIS	Name	Room No.	From	To	Address	Status	Confirmation
1	112003012	Prajakta Baad	509	2023-05-16	2023-05-23	Nashik	Approved	Done
2	112003012	Prajakta	509	2023-04-13	2023-04-29	Latur	Approved	Done
3	112003071	Shradha Kolhe	402	2023-04-16	2023-04-25	Parbhani	Approved	Done
4	112003071	Shradha Kolhe	401	2023-04-23	2023-04-24	Niphad	Approved	Done
5	111903052	Nirlepa Shinde	615	2023-04-15	2023-04-17	Niphad Nashik	Approved	Done



The screenshot shows a detailed view of a nightout application for student MIS 112003012. The student's profile picture is displayed, and the following information is provided:

Prajakta Baad
Name: Prajakta Baad
MIS: 112003012
Room No: 509
Email: prajakta@gmail.com
Parents Email: pradip@gmail.com
Address: Nashik
From: 2023-05-16
To: 2023-05-23
Status: Approved

All rights reserved @~ Hosted by Nirlepa17



Displaying all Nightout Applications and then warden can confirm the valid ones.

4.5 Notification to guardian:

The screenshot shows an email inbox interface. At the top, there is a search bar, a refresh icon, and a filter icon. Below the search bar, the word "Inbox" is displayed. A dropdown menu labeled "All" is open. The inbox contains several messages:

- A message from "Quora Digest" with the subject "Can ChatGPT replace software? No So I just opened ChatGI". It was received on Sat 15-04.
- A message from "Zoom Video Communications" with the subject "Zoom is Updating Its Terms We've Updated Our Terms". It was received on Fri 14-04.
- A message from "COEP Hostel" with the subject "Regarding Nightout Appl". It was received on Fri 14-04. This message is highlighted with a blue background.
- A message from "COEP Hostel" with the subject "This is regarding to inform you". It was received on Fri 14-04.
- A message from "COEP Hostel" with the subject "This is regarding to inform you". It was received on Fri 14-04.
- A message from "COEP Hostel" with the subject "This is regarding to inform you". It was received on Fri 14-04.
- A message from "Google" with the subject "> Security alert for albertkristine20@gmail.com". It was received on Fri 14-04.
- A message from "Coursera" with the subject "Be the first to explore our b... Gain industry-ready skills wi...". It was received on Fri 14-04.

On the right side of the inbox, there are standard email actions: Reply, Reply all, Forward, Archive, Delete, Set flag, and more. The message from COEP Hostel is selected, and its details are shown in a preview pane:

Regarding Nightout Application of Nirlepa Shinde

COEP Hostel <albertkristine20@gmail.com>
14-04-2023 22:35

To: Guardian of Nirlepa Shinde

This is regarding to inform you that Nirlepa Shinde has applied for nightout on 2023-04-15 till 2023-04-17

An automatic mail will be send to guardian once the application is confirmed.

5 Other Nonfunctional Requirements

5.1 Performance Requirements

The web portal should be able to handle at least 500 simultaneous user requests without any significant degradation in system performance. The response time for adding and retrieving data should not exceed 5 seconds. The system should be able to maintain 99.9 % uptime, with scheduled maintenance downtime not exceeding 4 hours per month.

5.2 Safety Requirements

The web portal should implement secure authentication mechanisms to ensure that only authorized users can access the system. The data stored in the system should be encrypted using industry-standard encryption algorithms to ensure the confidentiality and integrity of the data. The web portal should implement secure communication protocols (such as HTTPS) to prevent data interception and unauthorized access to sensitive information during transmission over the internet.

5.3 Security Requirements

The system should provide sufficient data backup and recovery mechanisms to ensure that data is not lost in case of a system failure or hardware malfunction. The system should implement appropriate access controls to prevent unauthorized modification or deletion of data. The system should have appropriate fail-safes to prevent the accidental deletion or modification of critical data.

Glossary

- in-out - only in regard to when students leave and enter the hostel campus
- Daily Routine - This routine is regarding students in-out
- Daily attendance - Record about students presence in hostel campus
- night-out - when student is not present in hostel premises during night time.