
Hostel Room Allocation System

Software Requirement Specification

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1. Introduction

1.1 Purpose

The Software Requirements Specification (SRS) will provide a detailed description of requirements for the Hostel Management System (HMS). This SRS will be helpful for complete understanding what is to be expected from the newly introduced system which is to be constructed. The clear understanding of the system and its functionality will allow for the correct software to be developed for the end user and will be used for the development of the future stages of the project. This SRS will provide the foundation of the project. From this SRS, the Hostel Management System can be designed, constructed and finally tested. The Project team will use the SRS to fully understand the expectations of the HMS to construct the appropriate software. The hostel end users will be able to use the SRS as a “test” to see if the constructing team will be constructing the system to their expectations.

1.2 Objective

- To deal with Hostel Management System in an easy and an efficient manner.
- Create strong and secure database that allow for any connection in a secret way, to prevent any outside or inside attacks.

1.3 Scope of the Project

- Hostel Management System is designed for Hostel (like schools, Universities).
- There will be predefined criteria for the Reservation to the hostels.
- He/She checks the attested application forms of the students obtained

from the internet and verify it with the student database.

- If the students are found eligible then they are allotted to the hostel Room.

1.4 Overview of Project

Hostel Room Allocation System is a web application which aims at computerization of current procedure of allocating hostel rooms. Currently the process involves students filling up the forms and submitting them in respective hostel offices which involves a lot of paperwork, hence less efficient.

2. Overall Description

2.1 System Requirement

The Web Application has two main parts:

- 1) Hostel Administrators
- 2) Students

The student can select among the allocated hostel to a specified batch and the Hostel Administrator can assign the room number in the specific hostel that the student has selected upon the availability.

3. User Requirements Definition

The user requirement for this system is to make the system fast, flexible, less prone to error, reduce expenses and save the time.

1. Less human error
2. Strength and strain of manual labor can be reduced
3. High security
4. Data redundancy can be avoided to some extent

5. Data consistency
6. Easy to handle
7. Easy data updating
8. Easy record keeping
9. Backup data can be easily generated.

4. System Requirement Specification

4.1 Functional System Requirement

This section gives a functional requirement that applicable to the HMS.

These are sub modules in this phase.

- Administrator module.
- User Module
- Application Module

The functionality of each module is as follows:

- Administrator module:

The Administrator can :

1. Allot different students to the different hostels.
2. Vacate the students from the hostels.
3. Edit the details of the students & modify the student records.

- User module:

1. Can submit the application form
2. Can view the notice board
3. Can submit the vacating form.

- Application module:

This section provides a form to the students which can be filled by them, and a copy of the filled page can be taken in the printed form. This is later submitted to the Hostel authorities can be verified by them before allotting them to the respective hostels Rooms.

4.2 Non-Functional System Requirements:

4.2.1 Performance Requirements

Some Performance requirements identified is listed below:

1. The database shall be able to accommodate around thousand records to store.
2. The software shall support use of multiple users at a time.

4.2.2 Safety Requirements

The database may get crashed at any certain time due to virus or operating system failure. Therefore, it is required to take the database Backup.

4.2.3 Security Requirements

Some of the factors that are identified to protect the software from accidental or malicious access, use, modification, destruction, or disclosure are described below. Keep specific log or history data sets

1. Assign certain functions to different modules
2. Restrict communications between some areas of the program
3. Check data integrity for critical variables
4. Later version of the software will incorporate encryption

5. techniques in the user/license authentication process.

5. Hardware Requirements

- Processor: Pentium or greater
- RAM: 512MB
- Hard Disk: Depends on how much data is stored in DATABASE (min 1GB)
- Keyboard
- Monitor

6. Software Requirements

- OS: Linux
- Database: SQL