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# ASSIGNMENT ON SOFTWARE ENGINEERING

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SOFTWARE REQUIREMENT SPECIFICATION



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# SOFTWARE REQUIREMENT SPECIFICATION FOR HOSTEL MANAGEMENT STYSTEM

## 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. SCOPE

- ❖ 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.

### 1.3. DEFINITIONS, ACRONYMS AND ABBREVIATIONS

The following table explains the terms and abbreviations used in the document.

- ❖ GUI - Graphical User Interface
- ❖ XAMPP - A server that is running Linux, Apache, My-SQL and PHP
- ❖ DBMS - Database Management System

### 1.4. References

- ❖ <https://phpgrid.com/example/build-project-management-application-scratch>
- ❖ Software engineering a practitioner's approach by Roger Pressman

### 1.5. Overview

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. PRODUCT PERSPECTIVE

Hostel Management System it a standalone system that provides functionality described in the Product functions section.

### 2.2. PRODUCT FUNCTIONS

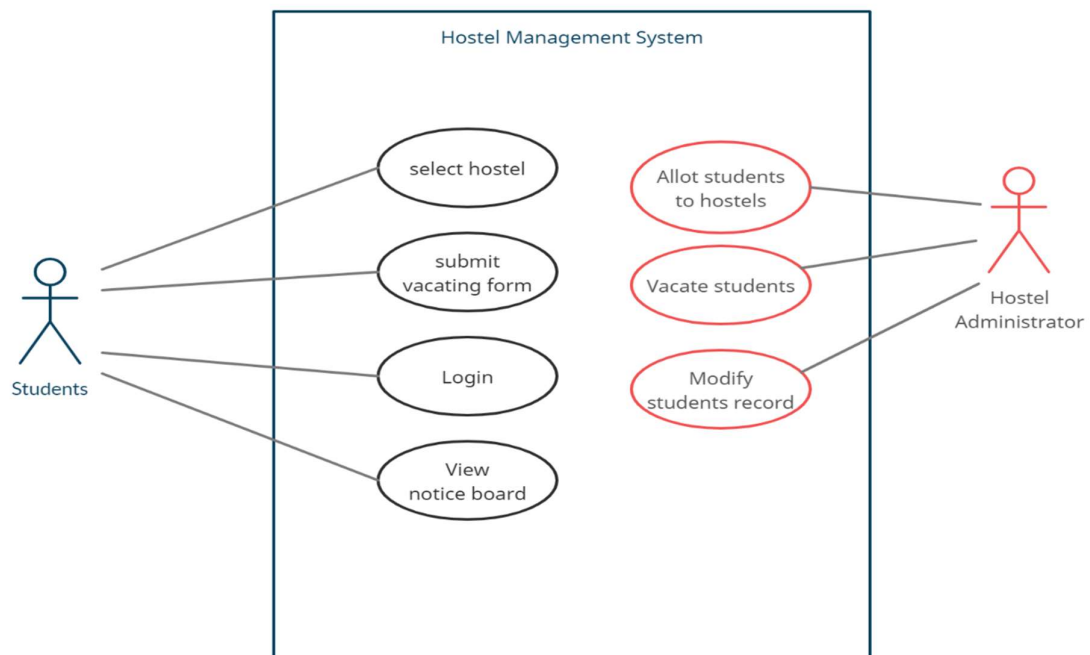
#### 2.2.1. Supported Functions

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.

#### 2.2.2. Use Case Diagram



## 2.3. USER CHARACTERISTICS

### 2.3.1.1. Hostel Administrator

### 2.3.1.2. Students

## 2.4. GENERAL CONSTRAINTS

Need high speed internet connection.

## 2.5. ASSUMPTIONS AND DEPENDENCIES

### 2.5.1. Assumptions

- ❖ *The code should be free with compilation errors/syntax errors.*
- ❖ *The product must have an interface which is enough to understand.*

### 2.5.2. Dependencies

- ❖ *All necessary hardware and software are available for the implementation*
- ❖ *The proposed system would be designed, developed, and implemented based on the software requirement specification document.*
- ❖ *End user should have basic knowledge of computer.*

## 3. SPECIFICATION REQUIREMENT

### 3.1. EXTERNAL INTERFACE REQUIREMENT

#### 3.1.1. User Interfaces

Web based user interface with ease of use Developed in PHP.

#### 3.1.2. Hardware Interfaces

- ❖ *Processor* : *Intel Pentium 3 or above*
- ❖ *Hard Disk* : *min 50GB*
- ❖ *RAM* : *512MB or above*
- ❖ *Monitor* : *LCD Monitor*

#### 3.1.3. Software Interfaces

- ❖ *Operating System* : *Windows 10/linux*
- ❖ *Client End Language* : *HTML 5*
- ❖ *Server-Side Language* : *PHP*
- ❖ *Database* : *MySQL*
- ❖ *Webserver* : *XAMPP*
- ❖ *Web Browser* : *Google Chrome*

#### 3.1.4. Communication Interfaces

- ❖ *Internet connection (wired/wireless)*

## 3.2. FUNCTIONAL REQUIREMENT

### 3.2.1. 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.

### 3.2.2 User module:

4. Can submit the application form
5. Can view the notice board
6. Can submit the vacating form.

### 3.2.3 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.

## 3.3 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.