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Group-5

Lab-2

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Needs:

All the tasks in the hostel are done manually right now thus a system is required to organize and maintain hostel records. The following are the needs that we face daily:

1. An easier way for room allocation and maintenance making it easier for the students to check their allocation.
2. A section to show the status of fees paid by the students.
3. A service to allow you to request laundry at an already fixed rate.
4. To keep track of all the necessary amenities such as tables, chairs, buckets, etc.
5. Announcement notifications about the hostel to all residents
6. Provide a functionality for students to lodge complaints.
7. To manage the courier service inside campus.
8. Housekeeping management (sweeper, bathroom cleaners)
9. A lost and found section to address the lost belongings.

Features:

1. Website with a simple design and easy to use UI.
2. Complaint Box:
    a. Current status : Registered, Reviewed, Solved.
3. Admin sign-in option to access extra rights.
4. Resident log-in to access the site resources.
5. Manage multiple hostels i.e hostel wings, different blocks etc.
    a. Room availability
    b. Allocation status
6. Notice board
7. Courier management
8. Lost and Found section
9. Fees/other-expenses status management section
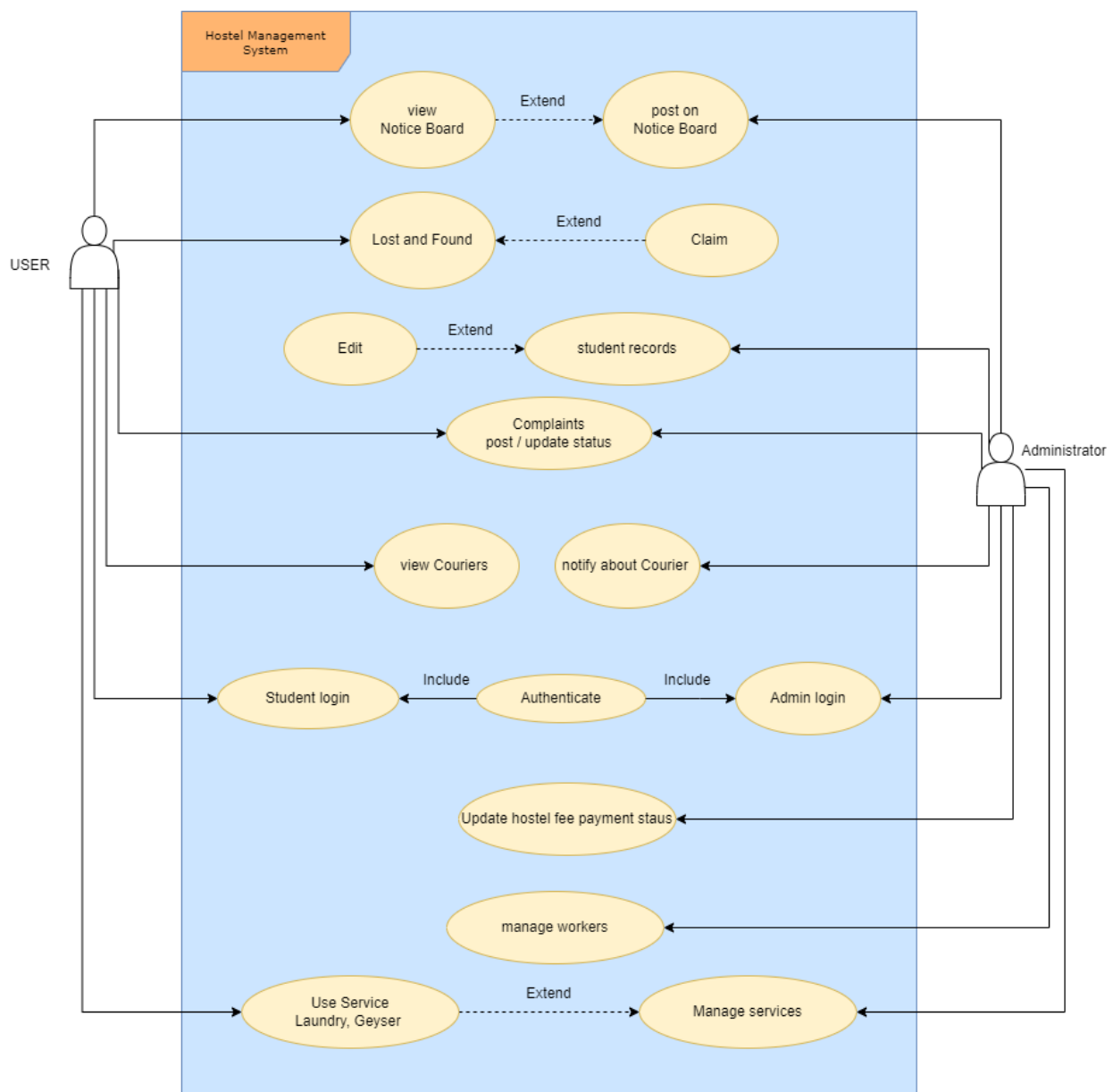
Requirements

1. Functional Requirements

a. The Administrator can:
1. Allocate students to rooms(various capacity).
2. Manage the fee payment status.
3. Modify the student records and edit the students' personal information.
4. They can see registered complaints and set status.
5. They can manage facilities and status of people/ workers associated with it.
6. Manage facilities like geysers, laundry timings and costs if applicable

b. The User Module
1. It makes the registration forms(Complaints/Permissions) accessible to the various users.
2. They can see updates about courier.
3. They can file a complaint as well as see their previous complaint status.
4. They can see notifications from the Notice Board.
5. Use services like laundry

2. Non-Functional Requirements
a. **Scalability:** Large number of students and staff.
b. **Security constraint:** No confidential information(passwords) in plain text.
c. **File type constraint:** It should be a web application.
d. **Accessing:** The users can access the web application from anywhere.

    e. Ease of use: The application aids users to easily communicate with the staff(easy to use GUI).

    f. Maintenance: Post deployment the smooth functioning of the application is desired.

Use case diagram

Model to use

The majority requirements must be defined clearly and understood. But some requirements might be added while the product is getting ready. Some of the functionalities or enhancements might be needed. The technology which is going to be used will be learnt by the team while working on the project. Time to time testing and debugging will be required. Risk analysis should be easy. The software produced should facilitate the user evaluation and feedback.
The **"Iterative Model"** appears to be the best option considering all the requirements from a model.