

Requirement Gathering & Specification

1. Identify Stakeholders

Primary Users:

- Students – to view establishment schedules and availability (read-only).
- Teachers/Professors – to check in/out, view schedules, and request special facility reservations.

Secondary Users:

- Admin/Staff – to upload schedules, monitor establishment usage, resolve conflicts, and generate reports.

Other Stakeholders:

- School Management (Dean, Registrar, Department Heads) – to ensure efficient use of school establishments.

2. Information Gathering Techniques

a. Interview

Template:

Stakeholder Name: Miss Issay – Admin in charge of scheduling and room assignments.

Date: 10/01/2025

Key Needs Mentioned (*stakeholder's wishes, problems, or expectations*):

- Scheduling is currently manual (pen and paper), which is time-consuming and error-prone.
- Conflicts in classroom assignments are common and only noticed when classes overlap.
- Vacant rooms are rare but may happen if an instructor ends class early or is absent.
- Reservation system is not applicable to classrooms with fixed schedules, but is useful for conference rooms, gym, and other facilities.
- A real-time dashboard showing room/establishment status (occupied, scheduled, vacant) would be very helpful.
- Reports on room schedules and usage would support monitoring and planning.
- Class monitoring (teacher attendance, check-in/out) is valuable.
- The system should be user-friendly, accurate, and avoid conflicts.

b. Survey / Questionnaire

Survey Tool Used: **Google Forms**

Number of Respondents: Professors: 7 & Students: 21

Key Results:

Professor

- 100% find it difficult to locate available establishments.
- 85.7% want online reservation with **admin approval**.
- 71.4% want real-time visibility of room status.
- Preferred features: Easy reservation, Pop-up details, Dashboard, Notifications.
- 71.4% agree that auto-release should apply if no check-in within 15–30 minutes.

Students

- 57% confused about which class/group should use a room; 61% wasted time finding available rooms.
- 67% experienced class delays due to room issues.
- 71% rely on classmates/professors to confirm schedules.
- 90.5% want a **real-time list of room/establishment status**.
- 95% want to see which subject/teacher/group is assigned to each establishment.
- Useful features: Dashboard (81%), Pop-up info (66.7%), Search/Filter (61.9%), Notifications (52.4%).
- Expected benefits: Less confusion (85.7%), better time management (81%), more reliable info (61.9%).

3. Summarize Requirements

Requirements (What the system should do):

- **FR1:** The system shall allow admins/staff to upload and manage semester schedules.
- **FR2:** The system shall provide a dashboard showing the real-time status of establishments (Available, Occupied, Scheduled, Reserved).
- **FR3:** The system shall allow teachers to check in and check out of their assigned establishments.
- **FR4:** The system shall automatically release an establishment if no check-in occurs within 15–30 minutes.
- **FR5:** The system shall allow teachers to request reservations for special-use facilities (e.g., conference rooms, gym), subject to admin approval.
- **FR6:** The system shall display pop-up details for establishments (capacity, schedule, teacher, subject, group).
- **FR7:** The system shall provide search and filter functions (by teacher, subject, establishment, time).
- **FR8:** The system shall notify users if an establishment becomes vacant or if a conflict arises.
- **FR9:** The system shall generate reports for admins (room usage, conflicts, teacher attendance).
- **FR10:** The system shall provide students with view-only access to schedules and establishment status.

Non-Functional Requirements (System qualities):

- **Performance:** The system should load the dashboard and establishment schedules within 3 seconds.
- **Security:** All accounts must be protected by login credentials; passwords must be encrypted.
- Role-based access must be enforced (Student: view-only; Teacher: check-in/out + requests; Admin: full access).
- **Usability:** The interface should be user-friendly, mobile-friendly, and simple for non-technical users.
- **Accuracy:** The system must prevent double-booking and provide clear conflict detection.
- **Reliability:** The system must function under concurrent logins by multiple users without errors.
- **Scalability:** The system should support all school establishments, including classrooms, labs, library rooms, and gym facilities.

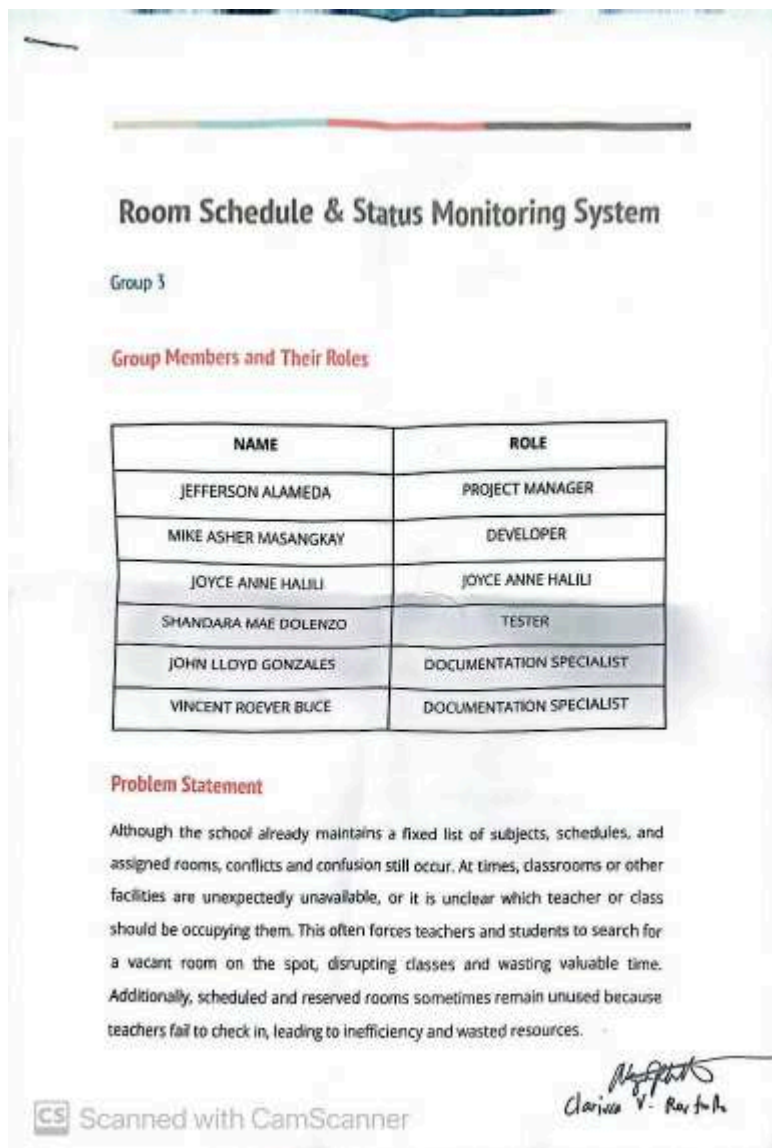
DOCUMENTATION

A. INTERVIEW

TRANSCRIPTION LINK: [Transcription of the Interview](#)

Project Proposal signed by Ma'am Issay

Picture of the Interview (Mr. Masangkay) and the Admin (Ms. Vega)



B. Survey / Questionnaire

PROFESSORS

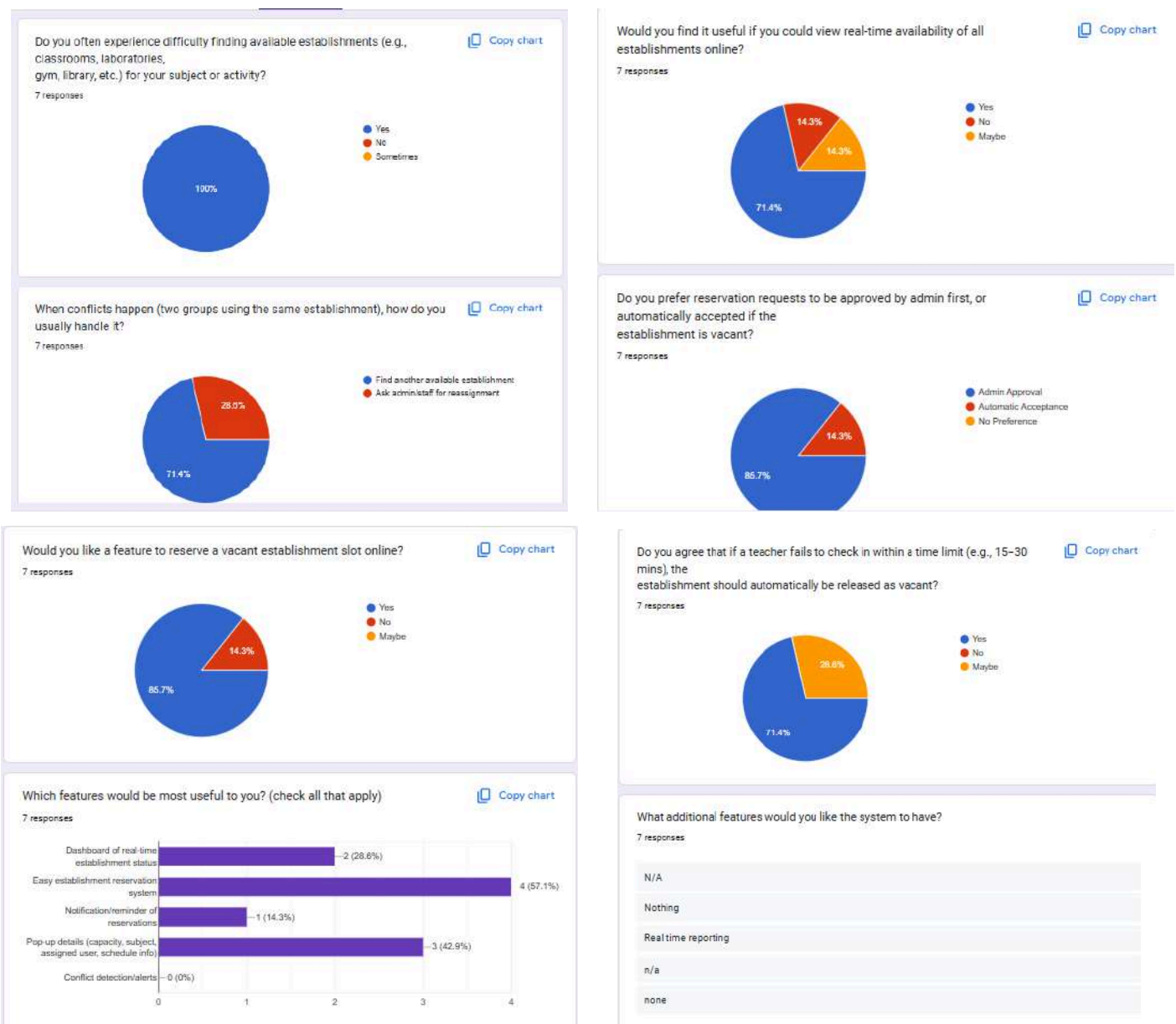
LINK OF THE GOOGLE FORM: [Teachers Survey on Room Schedule & Status Monitoring System](#)

RAW DATA EXPORT: [Professor's Result Summary](#)

Screenshot of the Google Form

The screenshot shows the Google Form interface with the title 'Teachers Survey on Room Schedule & Status Monitoring System'. The form is currently in the 'Questions' tab, with 'Responses' (7) and 'Settings' tabs also visible. Below the title is a text area for 'Form description'.

Screenshot of the Summary Results



STUDENTS

LINK OF THE GOOGLE FORM: [Student's Survey on Room Schedule & Status Monitoring System](#)

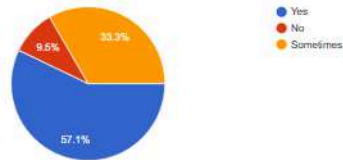
RAW DATA EXPORT: [Professor's Result Summary](#)

Current Experience

1. Have you ever experienced confusion about which class, group, or teacher should be in a specific establishment (classroom, lab, library, gym, etc.)?

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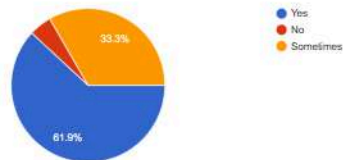
21 responses



2. Have you ever wasted time looking for an available establishment because the assigned one was unavailable?

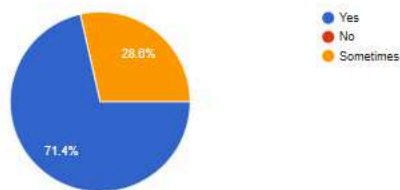
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21 responses



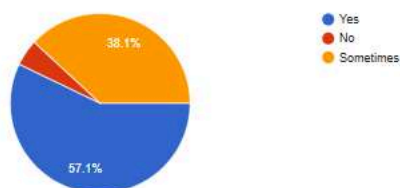
5. Do you rely on classmates or professors to confirm room schedules?

21 responses



6. Do you feel that the current way of checking room schedules affects your time management?

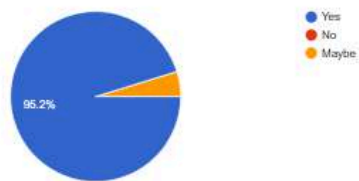
21 responses



9. Would you like to be able to see which subject, teacher, or group is assigned to an establishment at a given time?

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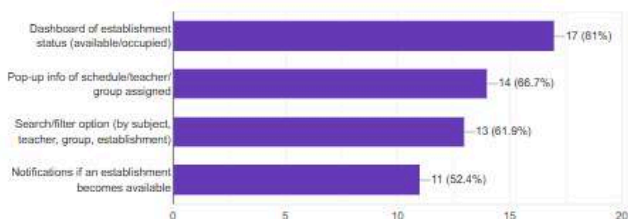
21 responses



10. Which features would be most useful for students? (check all that apply)

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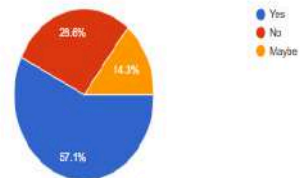
21 responses



3. Do you find it difficult to check room schedules in school?

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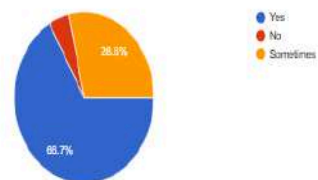
21 responses



4. Do you experience delays in classes starting because of room availability issues?

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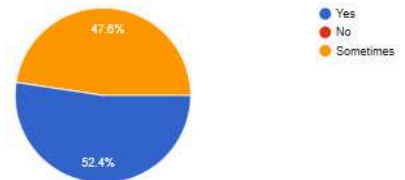
21 responses



Needs and Expectations

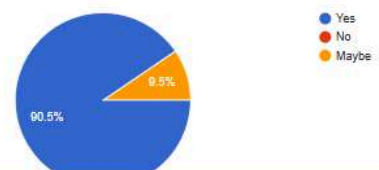
7. Do you often encounter sudden classroom changes?

21 responses



8. Would it help you if you could view a real-time list of establishment statuses (Available, Occupied, Scheduled, Reserved)?

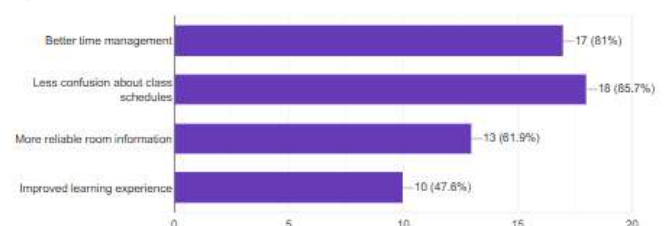
21 responses



11. What benefits do you expect from using the system?

[Copy chart](#)

21 responses



12. In your opinion, what problems could this system solve for you as a student?

21 responses

this could solve the confusion of our classroom schedule

A Room Schedule & Status Monitoring System can solve several common issues for me as a students by streamlining their access to campus resources and study spaces. It eliminates the frustration of wasted time spent wandering the campus looking for an open classroom, lab, or study room, only to find it occupied or locked. By providing real-time information, it allows students to efficiently plan group meetings or focused study sessions by instantly identifying available, suitable spaces. Moreover, it can reduce conflict over popular areas, as the official schedule dictates usage, fostering a more organized and predictable academic environment for everyone.

It may helps me in a way that I can attend classes without worrying about the assigned rooms and teachers.

More specific schedule and mode learning

Real-time status updates like whether a room is in use, available, or under maintenance would really help me plan better.

..

12. In your opinion, what problems could this system solve for you as a student?

21 responses

It would be less confusing.

Less hassle

No more wasted time and less hassle.

In my experience, sometimes I don't know if the room is occupied or not and the only way to know is to open the door and see if it is occupied, also sometimes I struggle with approaching anyone in the room when asking about the room availability and schedule so such information would help me as a student in navigating the establishment and setting my schedule.

proper scheduling

z

N/A

Hassle-free

12. In your opinion, what problems could this system solve for you as a student?

21 responses

Kaya nyo nayan

it might avoids schedule conflicts, and lessen the confusion for students.

None

As a student, ahm maybe sa prof

helps us students to not waste time looking for vacant rooms whenever our room was taken

It can reduce the time spent looking for room vacancy.

This could solve the time management of the students and instructors/professors

Room confusion

It would be less confusing.

