Interview results on lab room allocation problem of
Cyber Security Innovation Center (CSIC)

Name: Manohar
Stakeholder type: CSIC lab coordinator

Question1: What do you feel about managing the lab room for the students?
Answer:

Currently, it is the reservation system with email. Students send me email and I approve their timeslots. It is hectic for me to do the task since I need to check my emails more often than I need to do. I need to coordinate that if the same time is not allocated to the multiple students for the same lab room. It is also my duty to check if a single student does not get more time slots than other students.

Question2: So, you do not have an automated lab room allocation system where students can get the reservation. Who is impacted by the problem?
Answer:

I think as a CSIC lab coordinator, me and the students both are impacted by the problem because students also need to wait for my response to get the reservation.

Question3: Why do students need the reservation? What is the process and conditions?
Answer:

In the cyber security program there are 50 students and we have only 5 labrooms. Only 3 students can work together in a single labroom. To equal distribution and efficient use of the labroom it is necessary to have the reservation.
.Students send me an email with their name, program and major, requested lab room number, intended time to use and purpose of using the labroom (research, self study, course work, get to know things). After getting the email, I check the student information, availability of the room and then let the student know about the slot status and avail the lab room if everything is fine. I use an excel file to track the slot allocation. It would be better if I could automate the system.

Question4: If there is an automated system to do the reservation how would the students use that to reserve a lab room?
Answer:

Students can check the slot allocation status of the lab rooms. They can send the request upon availability of the lab room. The labroom slot allocation can also be automated, it is not necessary for me to approve every time. However, there are some lab rooms which have important lab equipment and are not available for all students, in which case I need to approve their request.

Question5: How do you think you and students can be benefited if the problem is solved?
Answer:

I spent a significant amount of time of the day for the lab room reservation. So, my workload will be offloaded and I can spend more time on other important issues. The students do not need to wait until my response to get the reservation. Their time on writing email for reservation requests will also be saved and they can give more focus on their study.

Name: Ken
Stakeholder type: Cyber security Student

Question1: What do you think about the lab room reservation process of CSIC?
Answer:

> It is a complex process. I need to send multiple emails to confirm a single time slot.

Question2: Why do you need to send multiple emails?
Answer:

> Because when I intend to get a convenient time slot of mine and send an email then I get the response that the slot is already booked. The lab coordinator then provides me with some available slots and then I can select one convenient slot for me and make a confirmation request. Sometimes I need to wait for someday to get the slot.

Question3: Why do you need to wait for someday?
Answer:

> If the lab coordinator is out of office/is not in touch with his email then we need to wait until he responded.

Question4: Why is it important to get an immediate response?
Answer:

> There are 50 cyber security students and almost every student needs to use the labroom on demand basis. We can not use the lab room until we get confirmation from the coordinator because some equipment is meant to be used upon prior permission.

Question5: What do you think will solve the problem and what are your benefits from it?
Answer:

> As a student I want to see what lab room and what time slots are available for use at any time so that I can request a slot for myself. I do not want to wait to get a response/confirmation from the coordinator. I also want to know what lab room is currently being used by a student so if necessary I can personally talk to him if I have urgent activity and can switch slots. The students then can easily and efficiently reserve the labroom slots without much communication.

Processing the results

Lab coordinator and the student acknowledge the inefficiencies in the current manual reservation process and express the benefits of implementing an automated system to streamline lab room allocation at CSIC. I have summarized and categorized the interview as below:

Current Process: coordinator finds the current email-based reservation system hectic and manual. He approves reservations via email, checks for conflicts, and tracks allocations using an excel sheet. The student finds the process complex as well. He often needs to send multiple emails to secure a single time slot. the student sends multiple emails because slots are frequently already booked when he initially places requests. He has to wait for available slots suggested by the coordinator and then confirm. Sometimes, the student has to wait for the coordinator's response, especially if the coordinator is unavailable.

Impacted stakeholders: Both coordinator and the students are affected. Students must wait for his approval, and the coordinator spends a significant amount of time processing the requests.

Reservation process: Students email coordinator with their details, including lab room preferences, time slots, and purpose. coordinator manually approves or rejects these requests. Sometimes, the student has to wait for the coordinator's response, especially if the coordinator is unavailable.

Desired improvements: the student wishes for a system where he can see lab room availability and request slots without waiting for coordinator approval. Real-time information on room usage would also be helpful for efficient scheduling. Implementing an automated system would reduce coordinator's workload, allow students to reserve rooms without waiting for his response, and ensure fair allocation.