

# Requirement Documentation

Our team has examined the requirements that most faculties require to reserve a space. We collected the requirements from real staff and students all over the campus through a number of interviews and document analysis. You can find our analysis as follows.

## Issues of the Current System

In the current workflow, there are many steps to creating a reservation request. This may create a lot of difficulties to rarely-requested reserver. So, administrators need some helping methods to process all the many requests. For example, writing it down on a big whiteboard; filling it into the Outlook service and many other methods.

## The Workflow of the Current System

STEP 1: ASK AN ADMINISTRATOR ABOUT A SPACE'S AVAILABILITY		
<p>A reserver needs to ask a relevant administrator about his desired space's availability and gives his requirements to the administrator to choose a space that is right for the reserver.</p> <p>Administrators will have their own constraints and room selection algorithms: they might choose one room over the others.</p>		
STEP 2: FILL-IN A FORM		
via a proposal	via a form	via a proposal + a payment
The proposal includes reasons to use the space, equipment requirements and a brief time schedule.	The form includes structured questions that are required in order to request a room.	An outsider is required to make a payment in addition to writing a proposal.
STEP 3: ASK FOR APPROVAL FROM AUTHORITIES		
<p>By submitting a form, the forms will be forwarded to the dean and/or head of academic-support staff (depending on faculty reservation guidelines. If the request does not conflict or does not violates the faculty reservation guidelines, request is approved.</p> <p>Then, the approver will be notified by the administrator for the approval</p>		
STEP 4: CONFIRMATION AND VERIFICATION		
<p>After approval, reserver may able to use the space as requested. All of the equipment is supplied to the room. But some of the authorities does not get notified about the room usage, so the approval copy of the form is given to authorities to confirm.</p> <p>Authorities contains these following staff: maid, security guard, head of the subject and other faculty administrator.</p>		

## Rules and Conditions

- The current reservation process varies for each authority.
- The current reservation process requires physical signatures from an authority.
- Each reservation requires various format of request form.

## Issues of the Current System

- Too many steps in order to reserve.
- No standards or forms on different faculties at all.
- Redundancies on reserve information may leads to conflicts and overrides.
- Exporting schedule unnecessarily consume too much time

## Wanted features

- Reduce workloads of administrator on the system.
- Reservation without directly contact the space manager
- Administrator will have to approve everything via the service.

## New system functions

- Reserve space online.
- Report the issues to corresponding staff faster.
- Administrator can manage users and services freely.

## New service data storage requirements and relationships

1. Relational database for keeping the service data accessible
2. Time series database for logging and further audits.
3. File system for other file formats that doesn't get supported by relational database

## Required documents

	A RESERVER	A RELEVANT AUTHORITY	AN APPROVER
Schedules	-	A new timetable (brief)	A new timetable
Reservation validation	Reservation form	-	A reservation form
History logging	Reservation history	-	Reservation history

For this conclusion, they might have a different constraint due to different rules or issues of each faculty. So we have summarized each of the interviews and documentation analysis from each faculty we have been on.