Title

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Abstract

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I. Introduction

II. Use cases and user stories

To further identify the desired functionality of the University Room Management System, two use cases and three user stories were identified and formulated. One use case and two user stories will be described in more detail in this section.

The identified use cases are *Searching and booking a room* and *Getting navigation instructions to a room*. For the use case *Searching and booking a room* a use case specification was created. The specification is shown in TABLE I.

III. Experiment and Results

IV. Discussion

V. Conclusion

Acknowledgment

APPENDIX

Name	Searching and booking a room
Scope	University Room Management System
Level	User goal
Primary Actor	Student, Professor or other university staff
Stakeholders / interests	Other members of the university (students, professors, other staff) University / university management
Preconditions	User is in possession of a valid university card and has a user account
Postconditions	Status of the rooms in the room database is updated
Main success scenario	1. User searches a room via a room number 2. System returns a list of rooms fulfilling the search query 3. User selects a room from the list 4. System shows detailed information about the selected room 5. User books the room 6. System updates booking status of the room 7. System shows booking information and confirmation
Extensions	1a. User searches room via room properties 1. User opens page to filter specific properties 2. User selects room requirements and confirms 2a. No room fulfilling the search criteria exists 1. System shows message: “No rooms found” 2. System presents rooms similar to the search query 5a. Room is already booked 1. System shows message: “Room is already booked” 2. System suggests a list of similar rooms 5b. User already booked the allowed maximum amount of rooms 1. System shows message: “You cannot book another room” 2. System shows list of rooms already booked by the user 5c. User books room according to a schedule (for future use) 1. System presents a day and time picker 2. User selects day of week and time 3. System asks for the frequency of the booking 4. User selects how often booking should be repeated 5. System books room for all selected time slots 5a. Room is not available in all time slots 1. System shows message: “Room is not available at <DAY / TIME>” 2. System provides alternative time slots and rooms 3. User selects alternatives
Special requirements	Stable database Simple UI design Fast search
Technology / data variation	Available via a terminal at the university or via a web app
Frequency of occurrence	Very regularly, up to multiple requests per minute at most active times Long pauses without interaction also likely
Open issues	Booking of multiple rooms at once

TABLE I: Use case specification for the use case *Searching and booking a room*