

NOTICE!

- These materials are prepared only for the students enrolled in the course Distributed Software Development (DSD) at the Department of Computer Science and Engineering, University of Mälardalen, Västerås, Sweden and at the Faculty of Electrical Engineering and Computing, University of Zagreb, Croatia (year 2009/2010).
- For all other purposes, authors' written permission is needed!
- The purpose of these materials is to help students in better understanding of lectures in DSD and not their replacement!

Distributed Software Development



10/06/2009



The CourseScheduler team presents



CourseScheduler

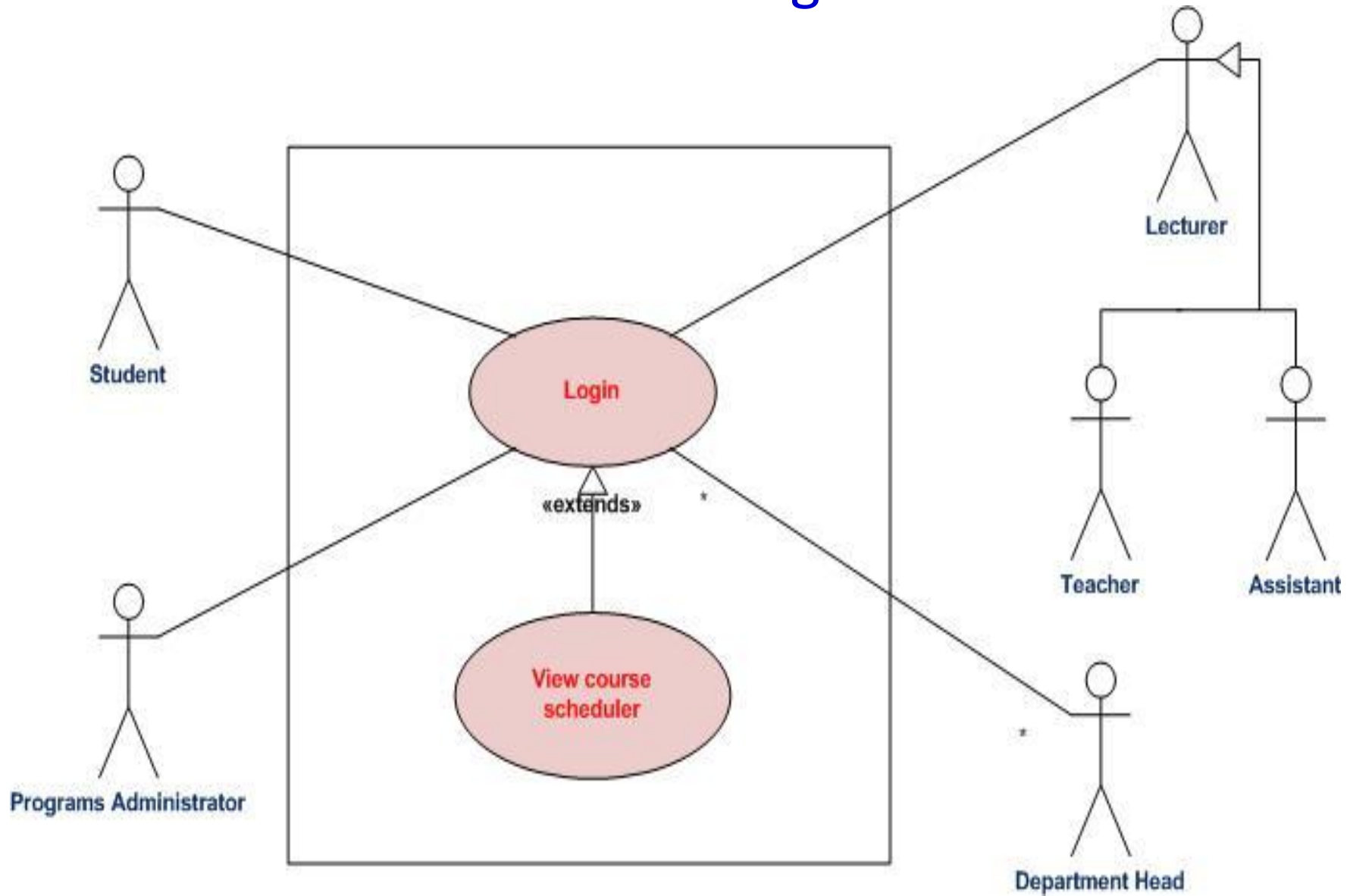
Requirements and Design

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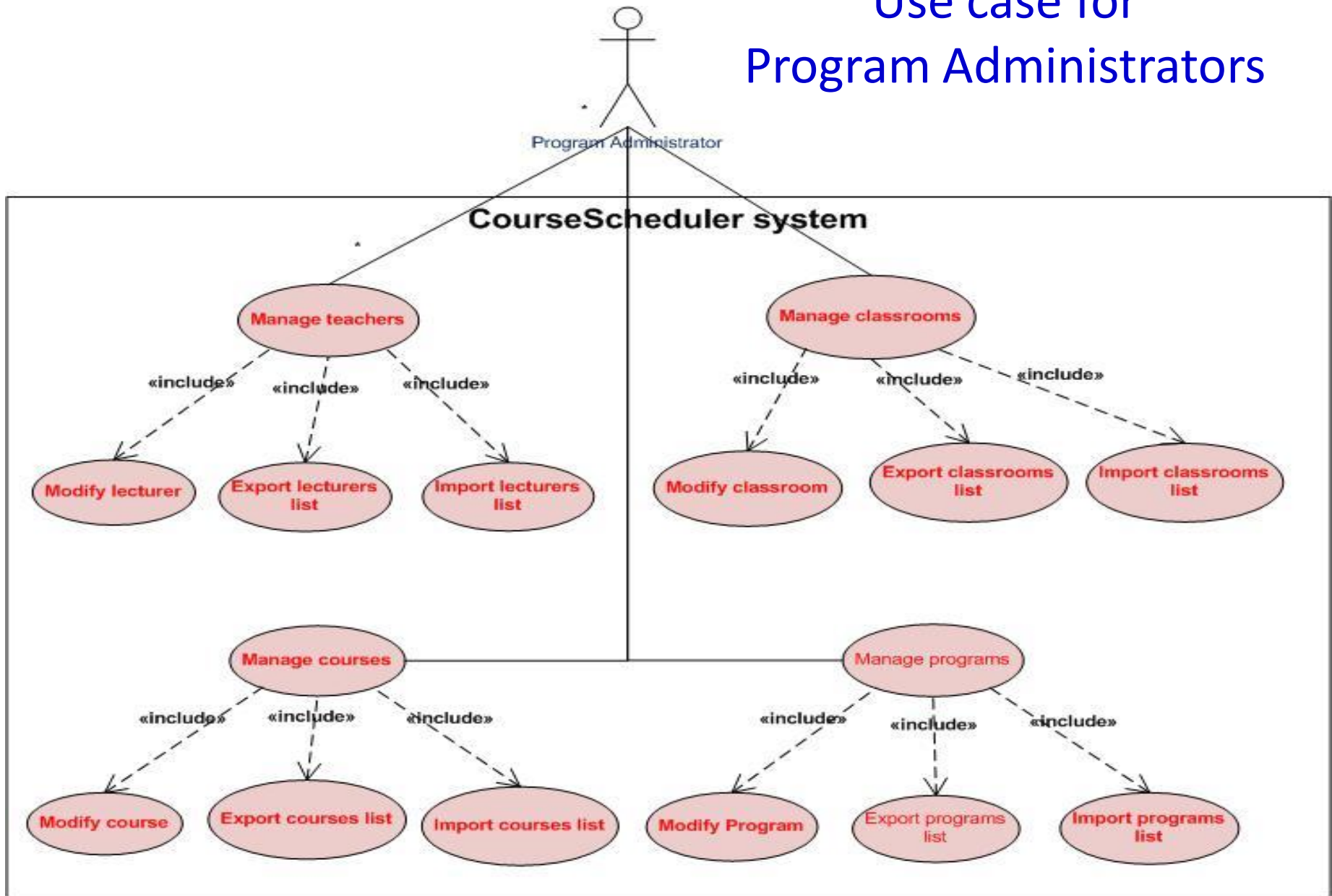
Overview

- Use Cases defining roles in the system, the role of program administrator, the roles of the department heads, the roles of teachers and the roles of students
- Functional and Non-functional requirements
- Sequence diagrams for program administrator, teachers and students
- Architecture of the proposed system

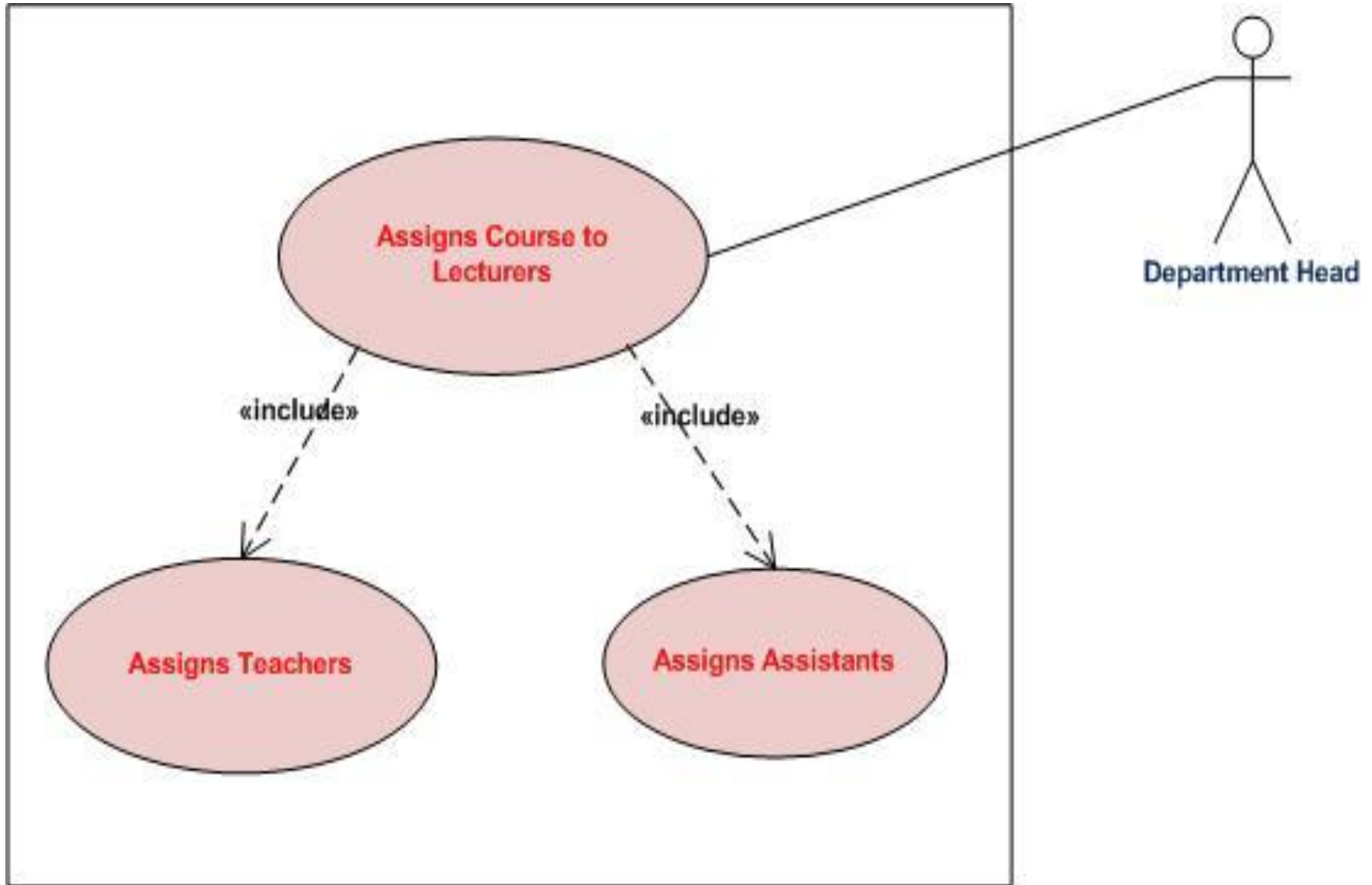
Course Scheduler Login Use case



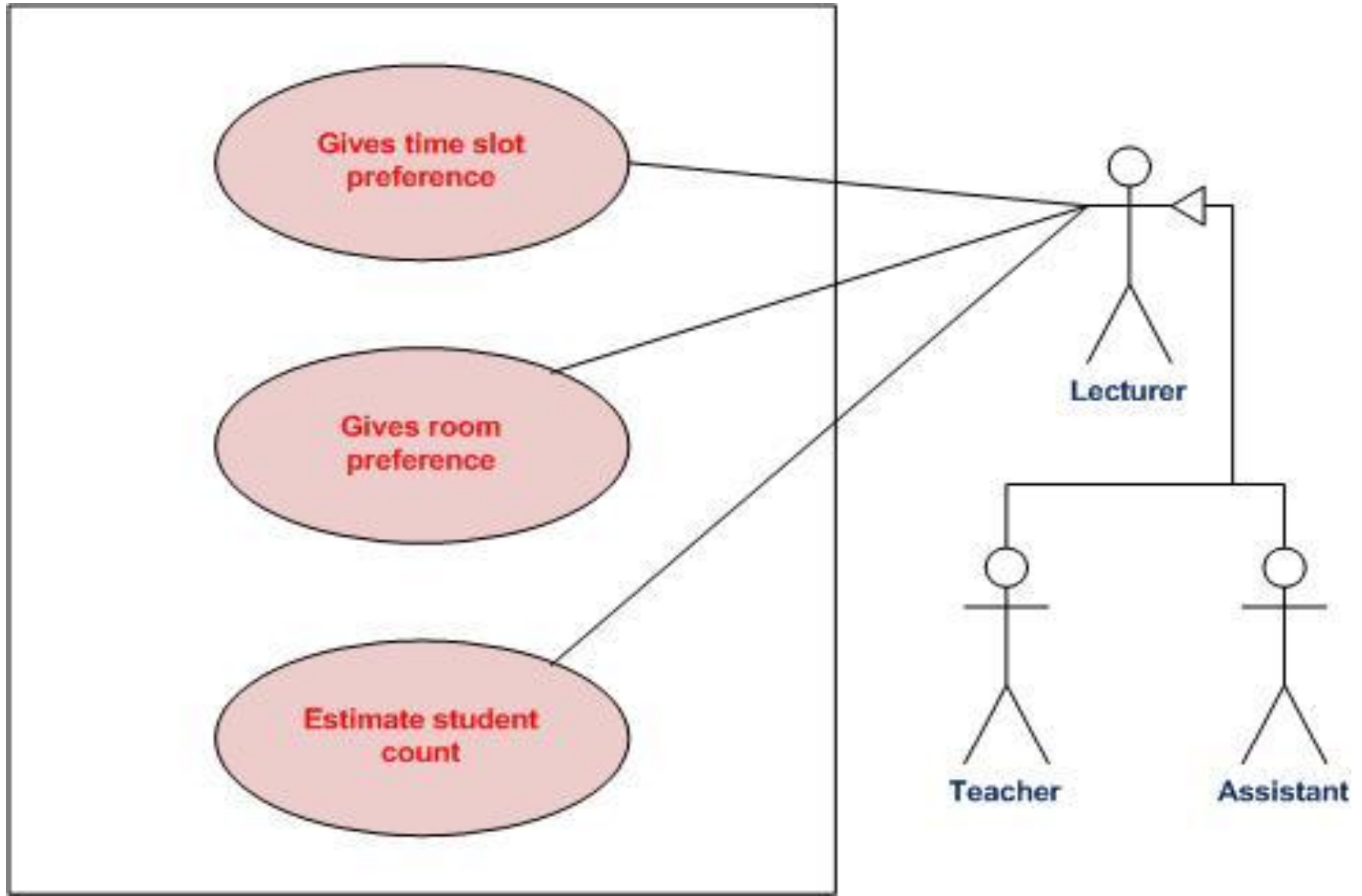
Use case for Program Administrators



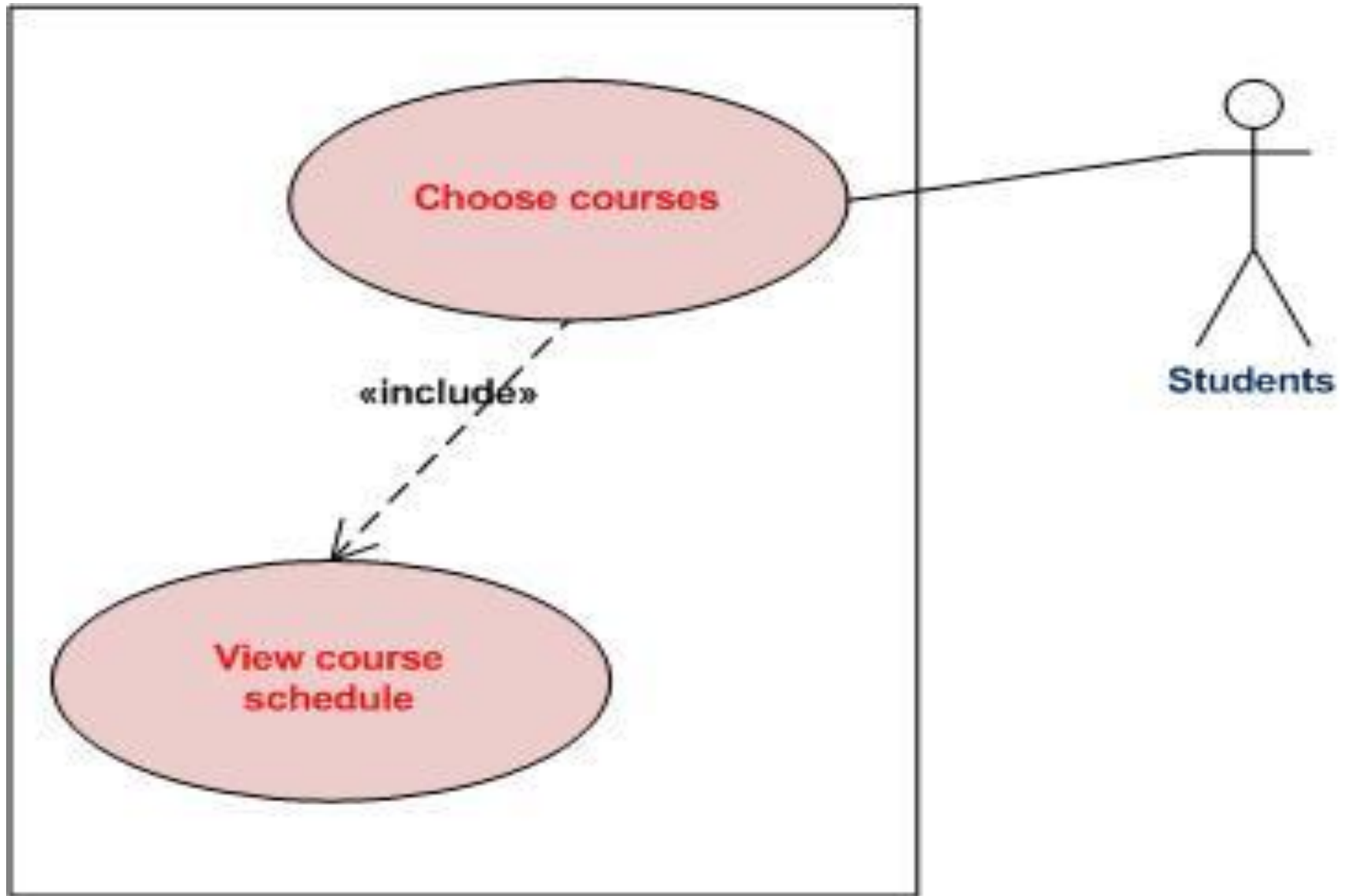
Use case for Department Heads



Use case for Teachers



Use case for Students



Requirements

- **Hard requirements:**
 - Collision of courses within the same category should be avoided
 - Same teacher cannot be available for more than one course at the same time
 - Program administrator should be able to modify courses, lectures, programs and import or export them to a list

Requirements

- **Hard requirements**
 - **Mandatory courses for a program should not overlap**
 - **Rooms cannot be allotted to more than one teacher at the same time**

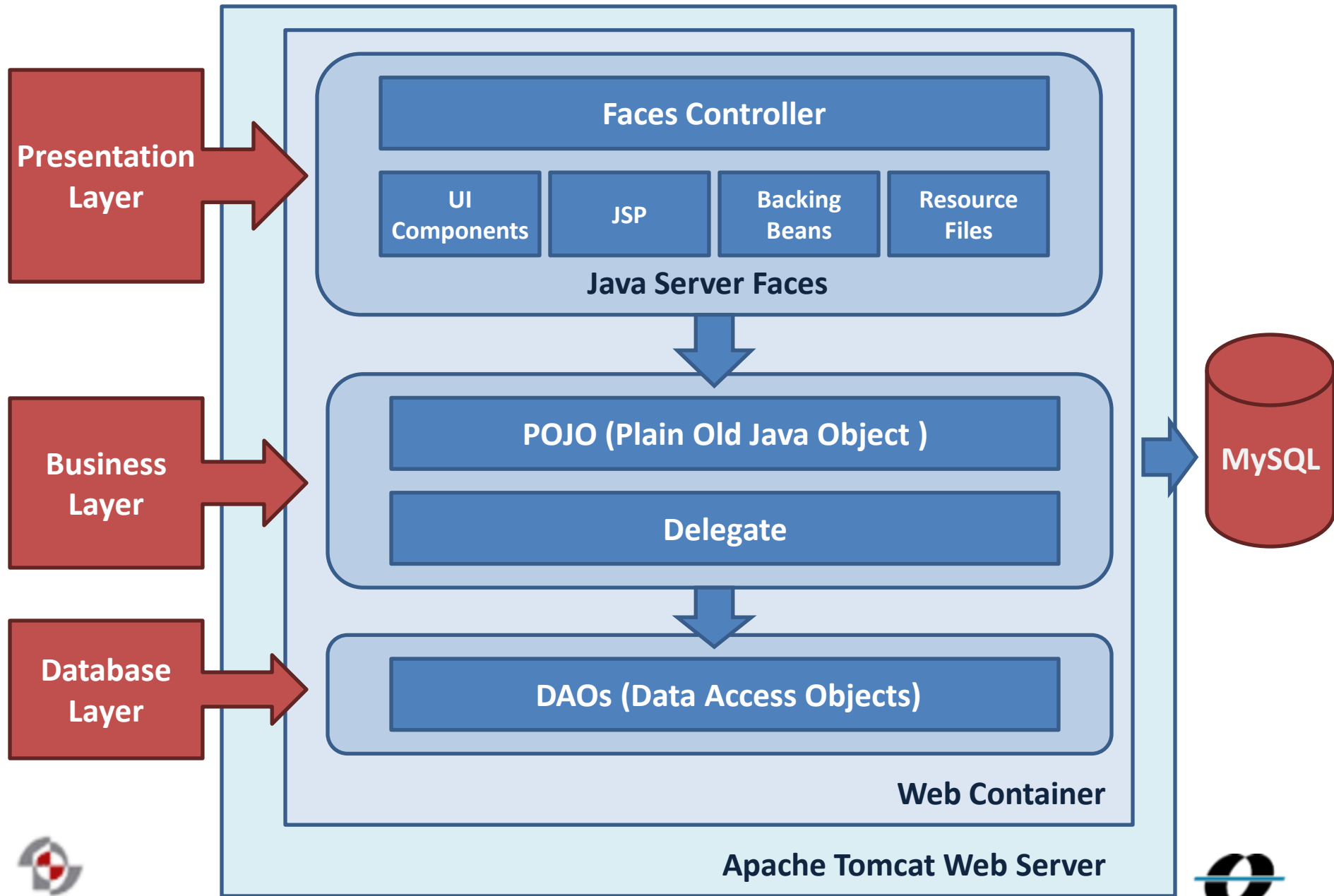
Requirements

- **Soft requirements**
 - Allowing teachers to enlist preferences for lecture rooms
 - Scheduling courses across two university campuses, Vasteras & Eskilstuna

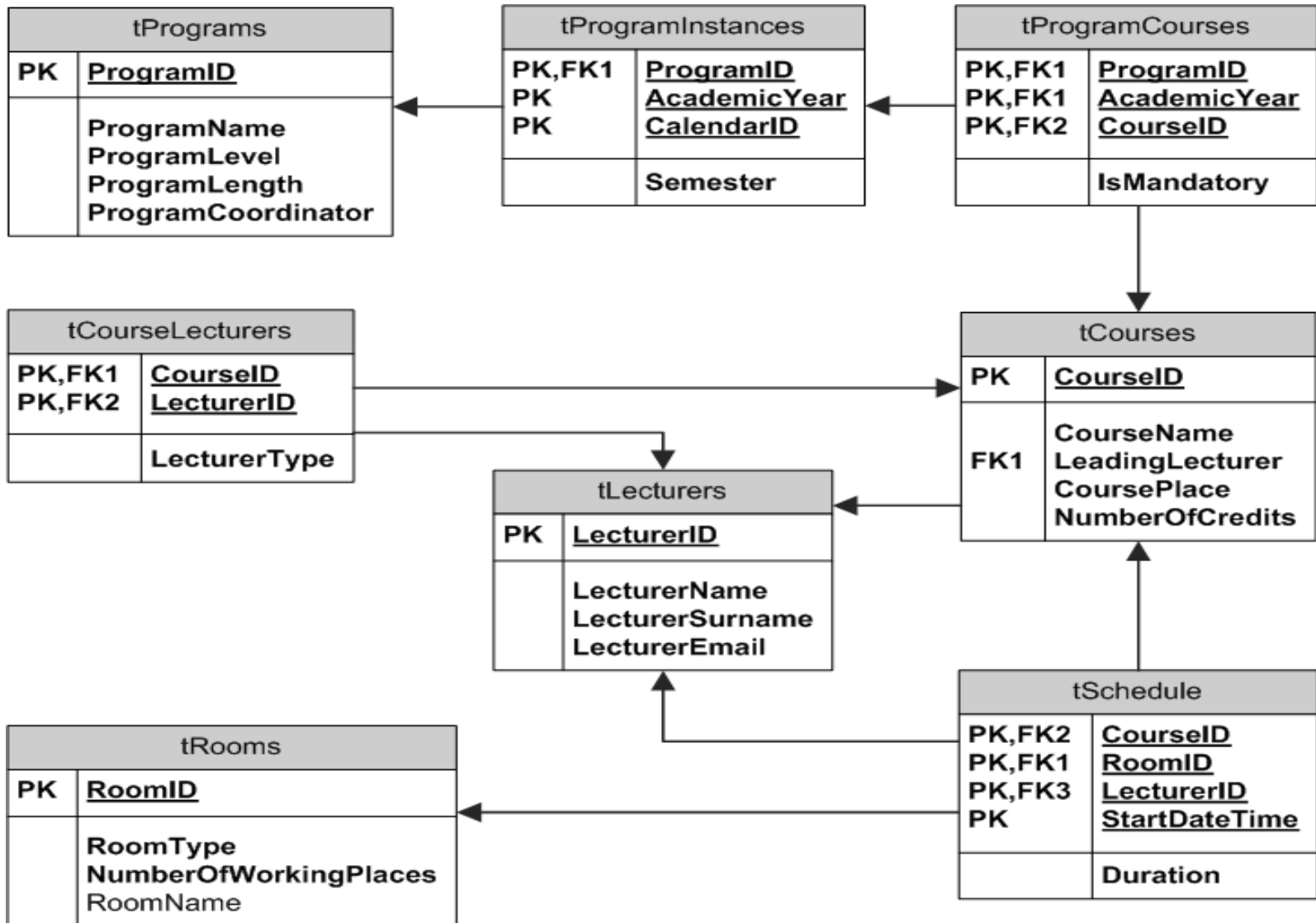
Non-functional Requirements

- **Primary nonfunctional requirements**
 - **Usability**
 - **Scalability**
 - **Maintainability**
- **Secondary non-functional requirements**
 - **Security**
 - **Performance**
 - **Testability**
 - **Transaction Control**

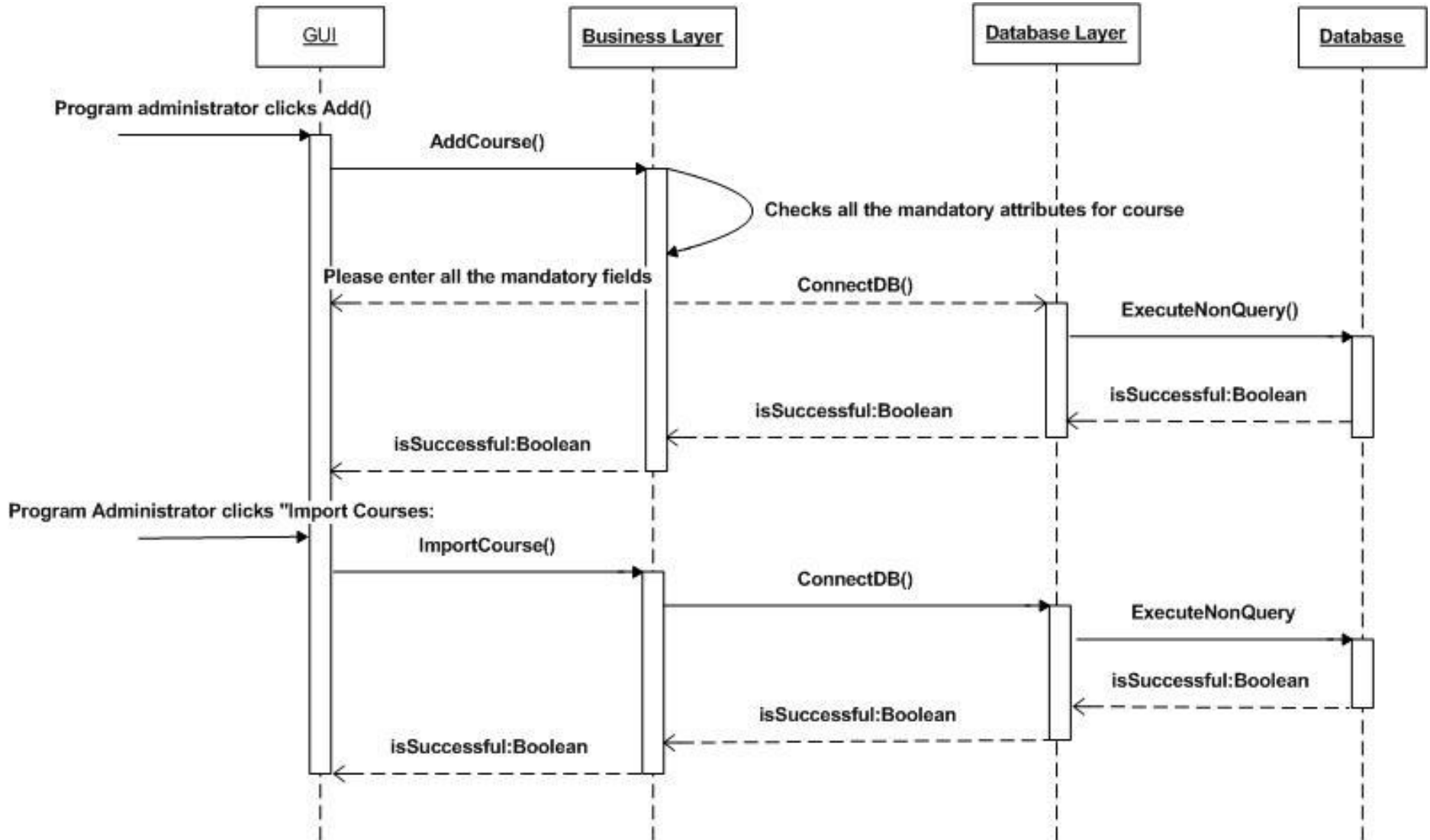
Architecture



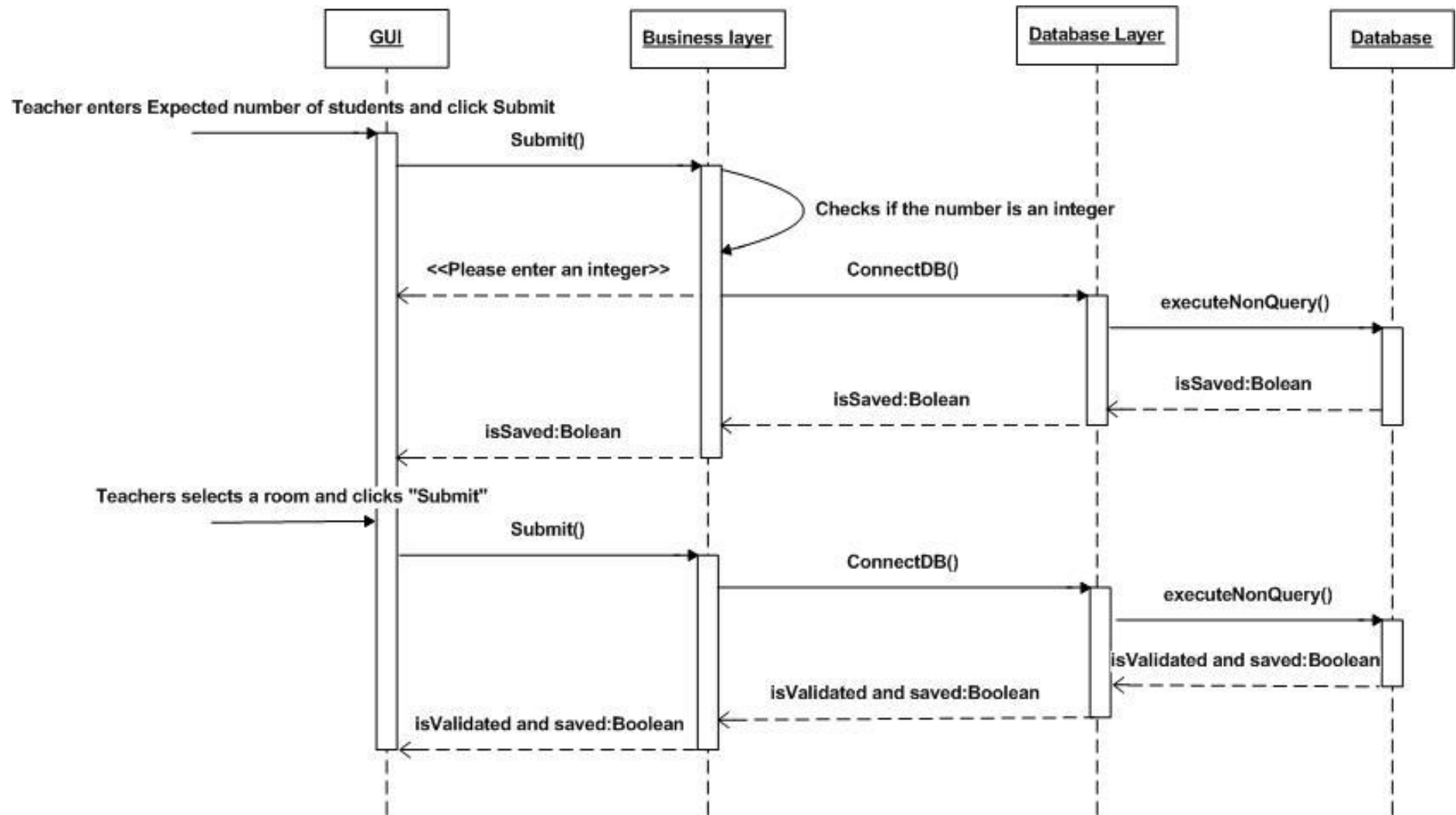
Database Architecture



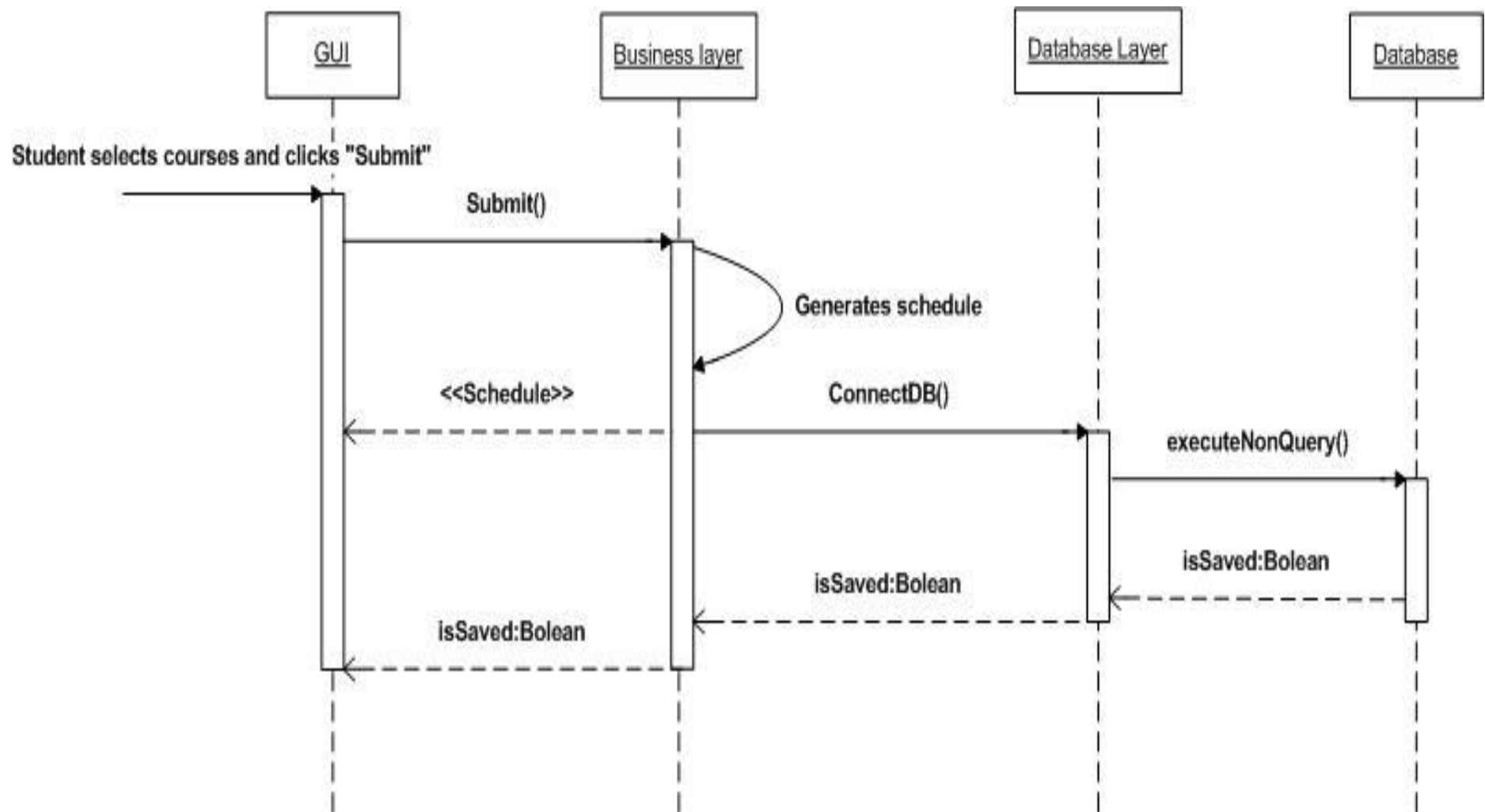
Activities performed by Program administrator



Activities performed by Teachers



Activities performed by Students



Questions?

