

Software System Architectures NSWI130

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# *Exam System*

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# *Goals*

- The exam system will handle the exam logic of a university.
- The exam system will allow registration to exams, reservation of rooms for exams and granting grades and credits.

# *Assumption* *S*

- User credentials.
- Room available for exam, alongside their capacity and availability.

# *Overview of the features*

1. **Exam registration**
2. **Awarding credits**
3. **Awarding grades**
4. **Reviewing credit/grades**
5. **Room reservation**
6. **Statistical report**

# *Exam Registration*

- As a student, I need to register to an exam so that I can pass the course.

- A student can:

*Register to an exam term*

*Deregister from an exam*

*Get a list of exam term for a subject*

# *Awarding Credits*

- As a teacher, I want to award credits to student so that they can register for the final exam.
- A teacher can:
  - Award the credits*
  - Get the list of subjects and their students.*

# *Awarding Grades*

- As a teacher, I need to award grades to students so that I can evaluate their work and provide them with feedback on their performance.
- A teacher can:
  - Give the grade*
  - Change the grade*
  - Get the list of subjects and their students.*

# *Reviewing Grades and Credits*

- As a student, I need to view the results of an exam so that I can see whether a student pass or fail.
- A student can:  
*Review their Credits and Grade*



# *Room Reservation*

- As a teacher, I need to view details about room reservations so that I can plan and schedule exams appropriately.
- A teacher can:
  - Get the list of all available rooms.
  - Reserve a room
  - Cancel a reserved room*

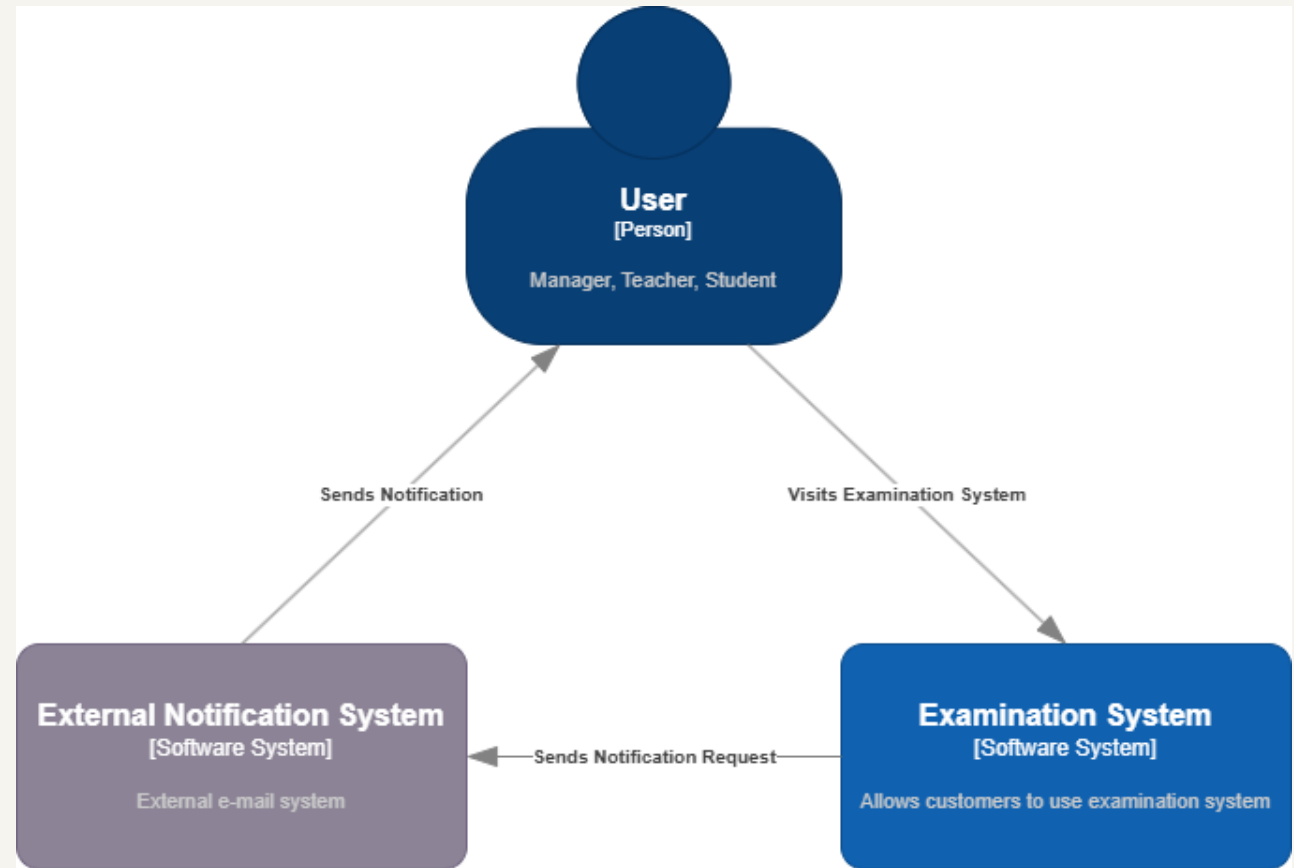
# *Statistical Report*

- As a manager, I need to create a report of results so that people registering for a particular class can see metrics like pass rate, fail rate, etc.
- A manager can:  
*Get a statistical report*

# *Responsibilities Overview*

- Authentication
- Data Integrity and Consistency
- Notifications and Communication
- Audit and Logging
- Validation and Error Handling
- Role-Based View Customization

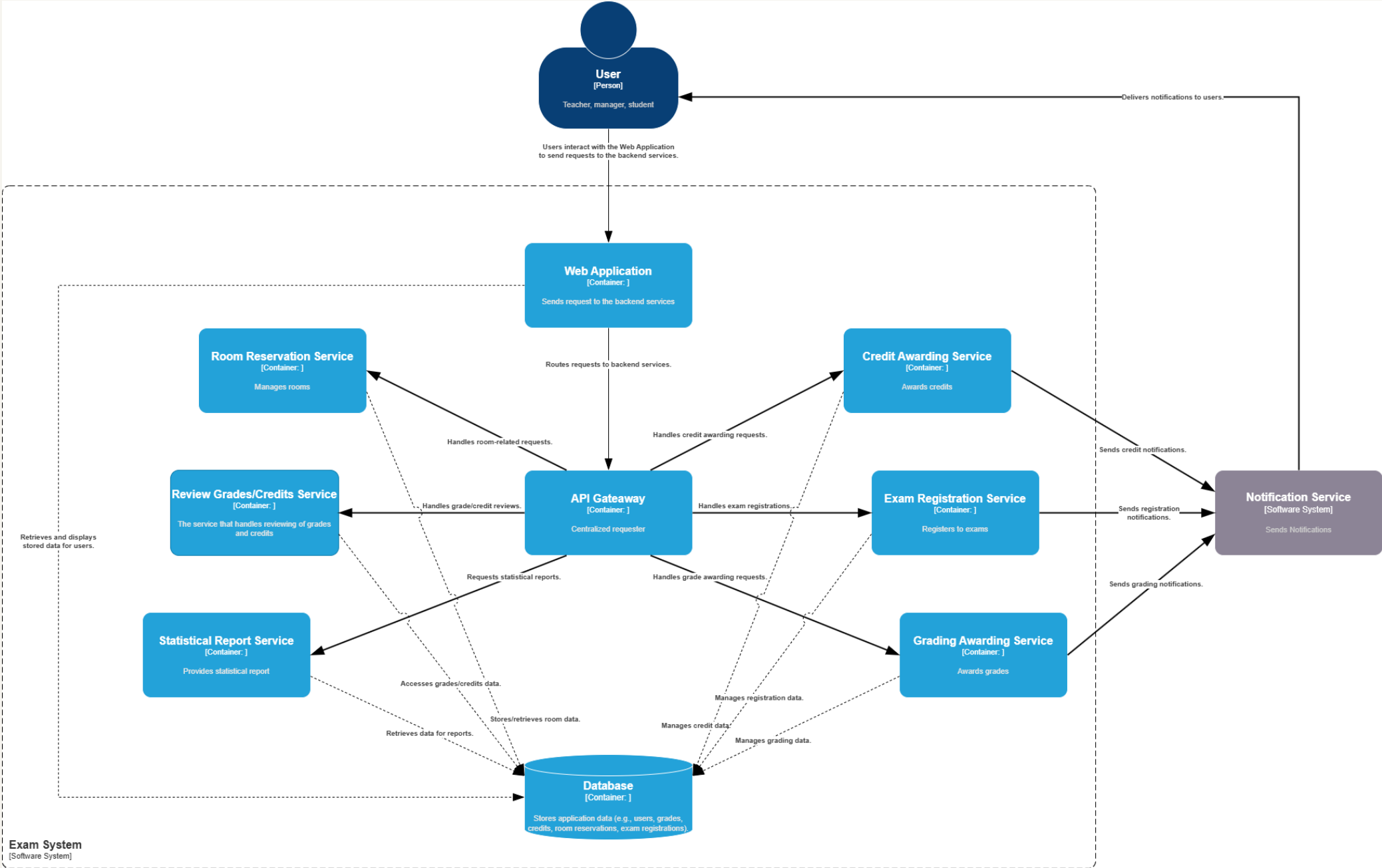
# *L1 Diagram*

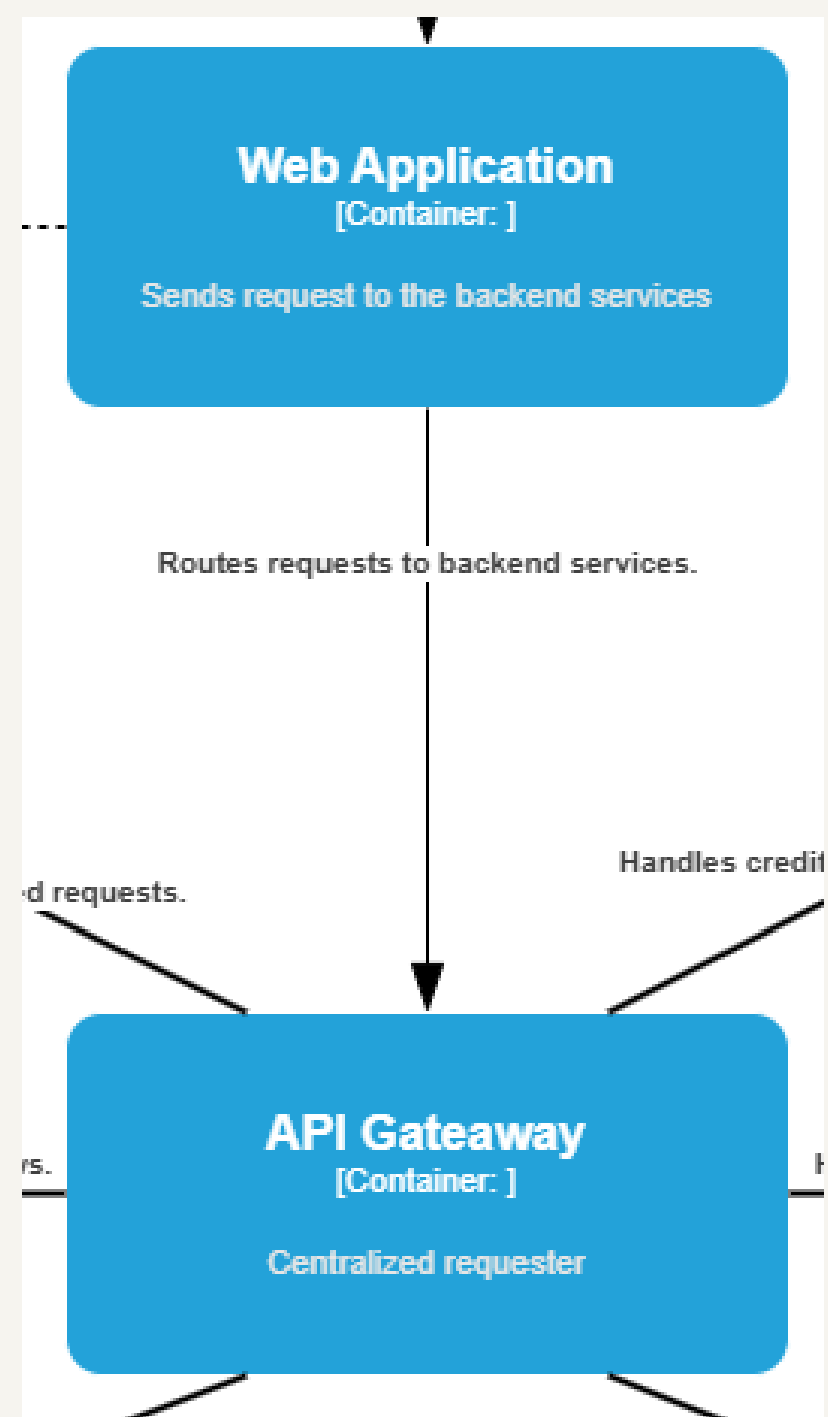
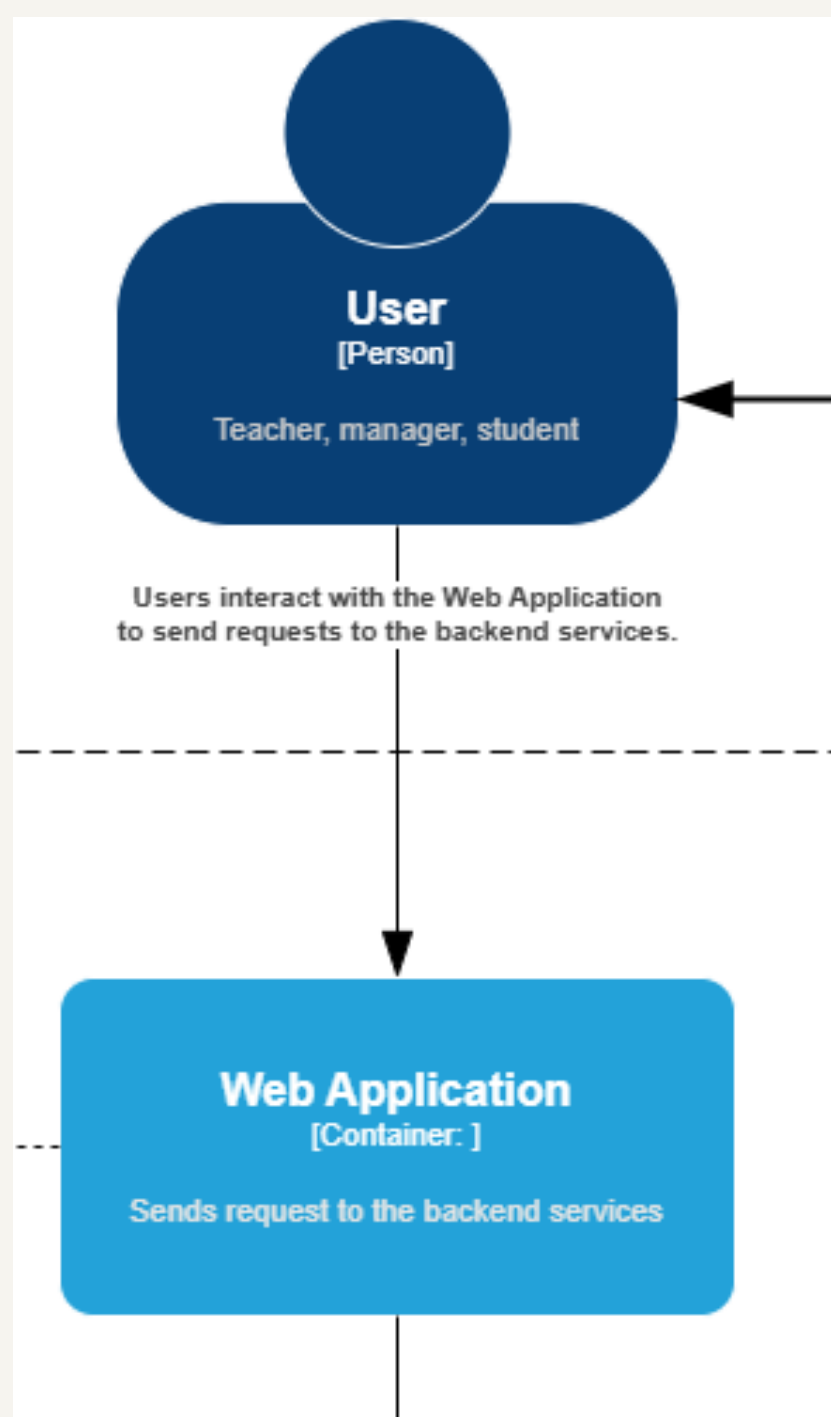


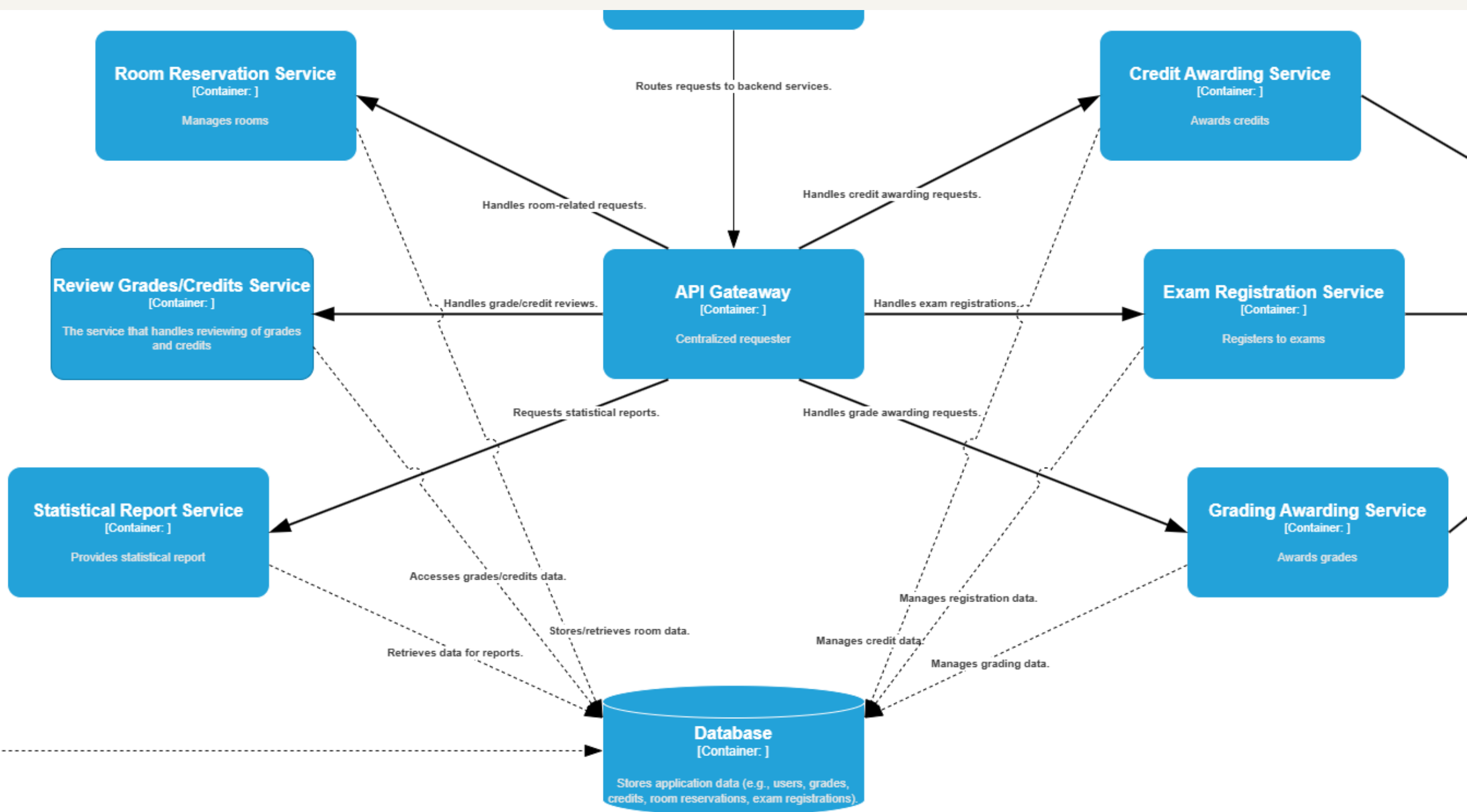
Made by Orkhan Abilov

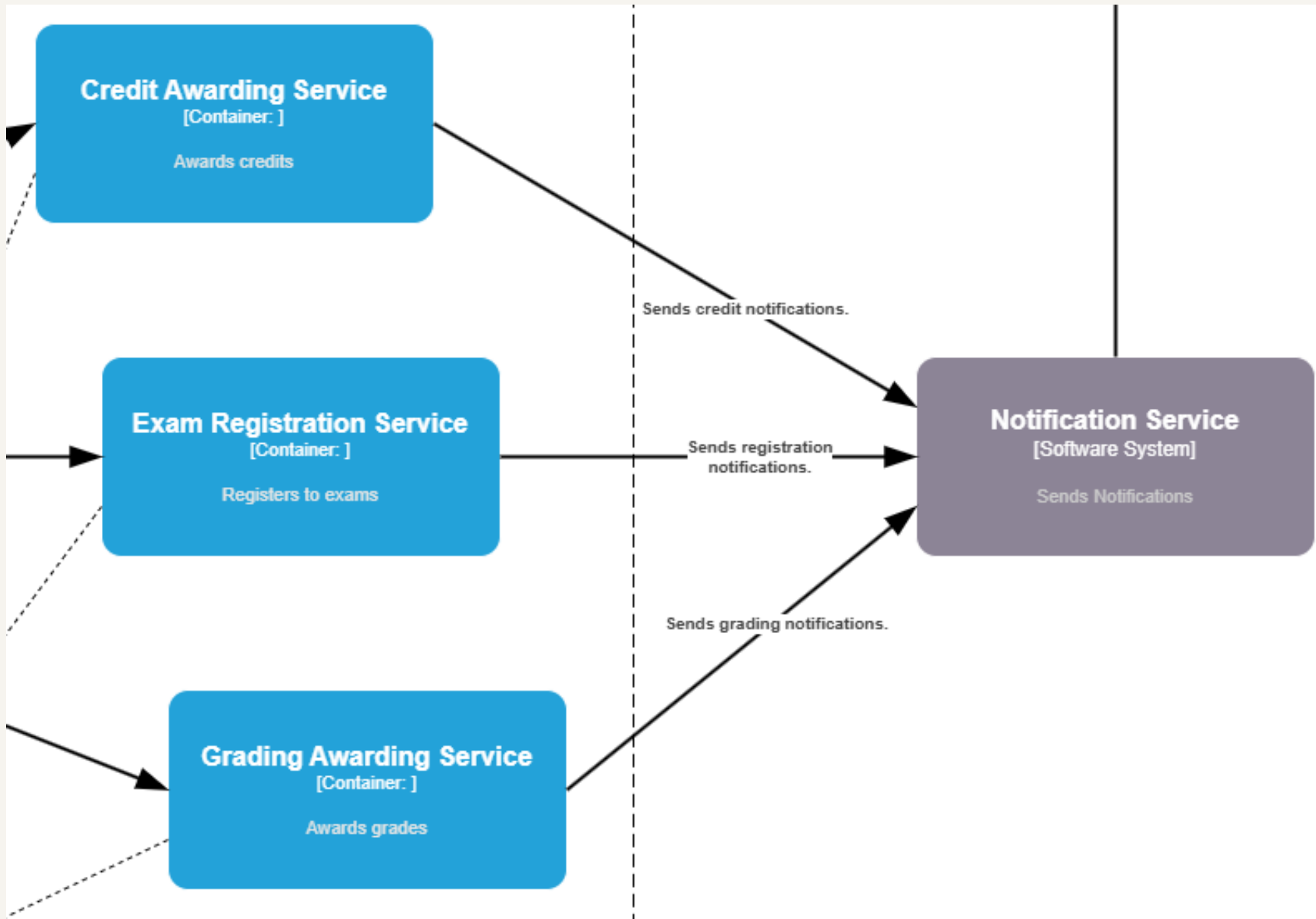
# L2 Diagram

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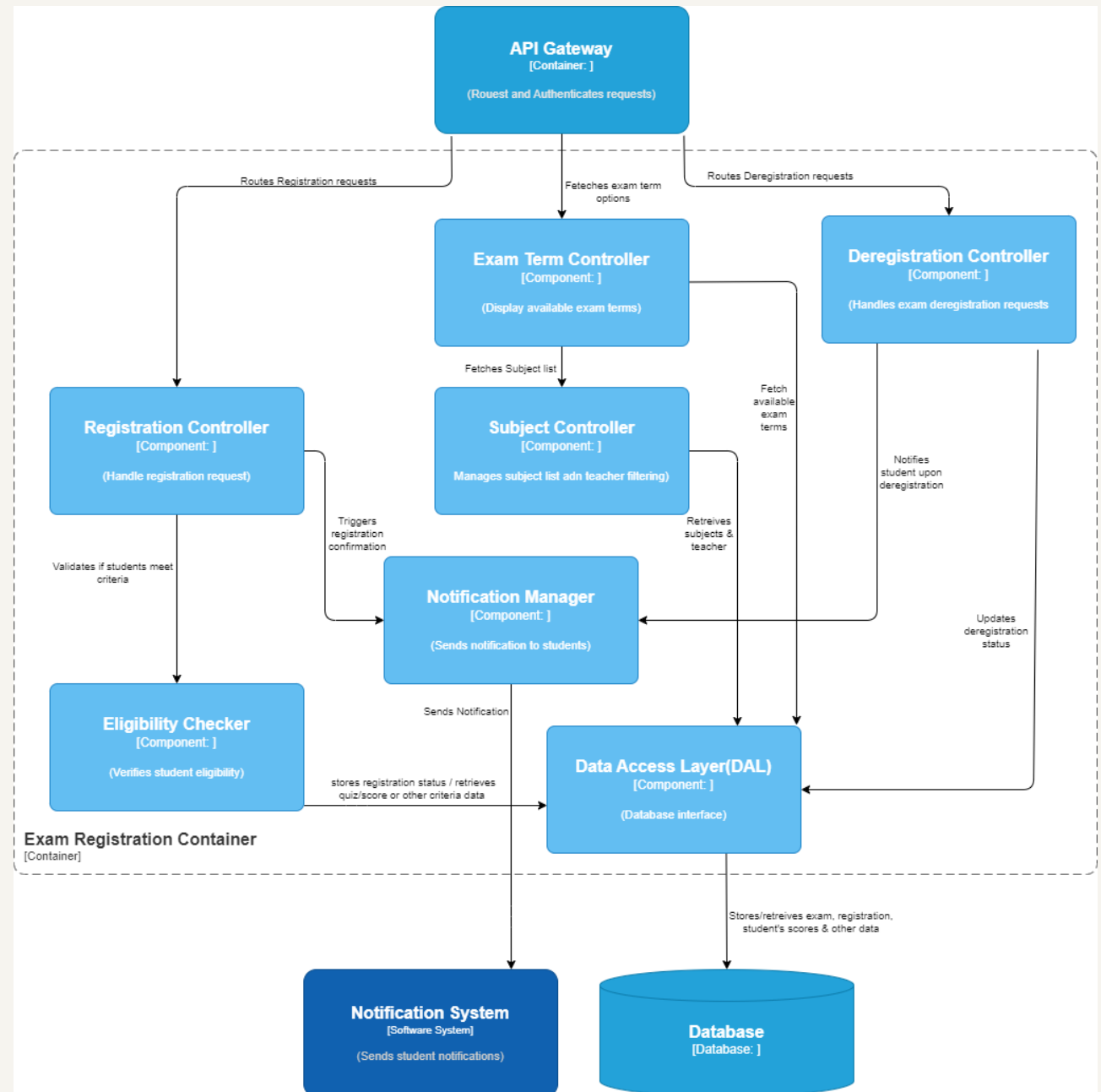


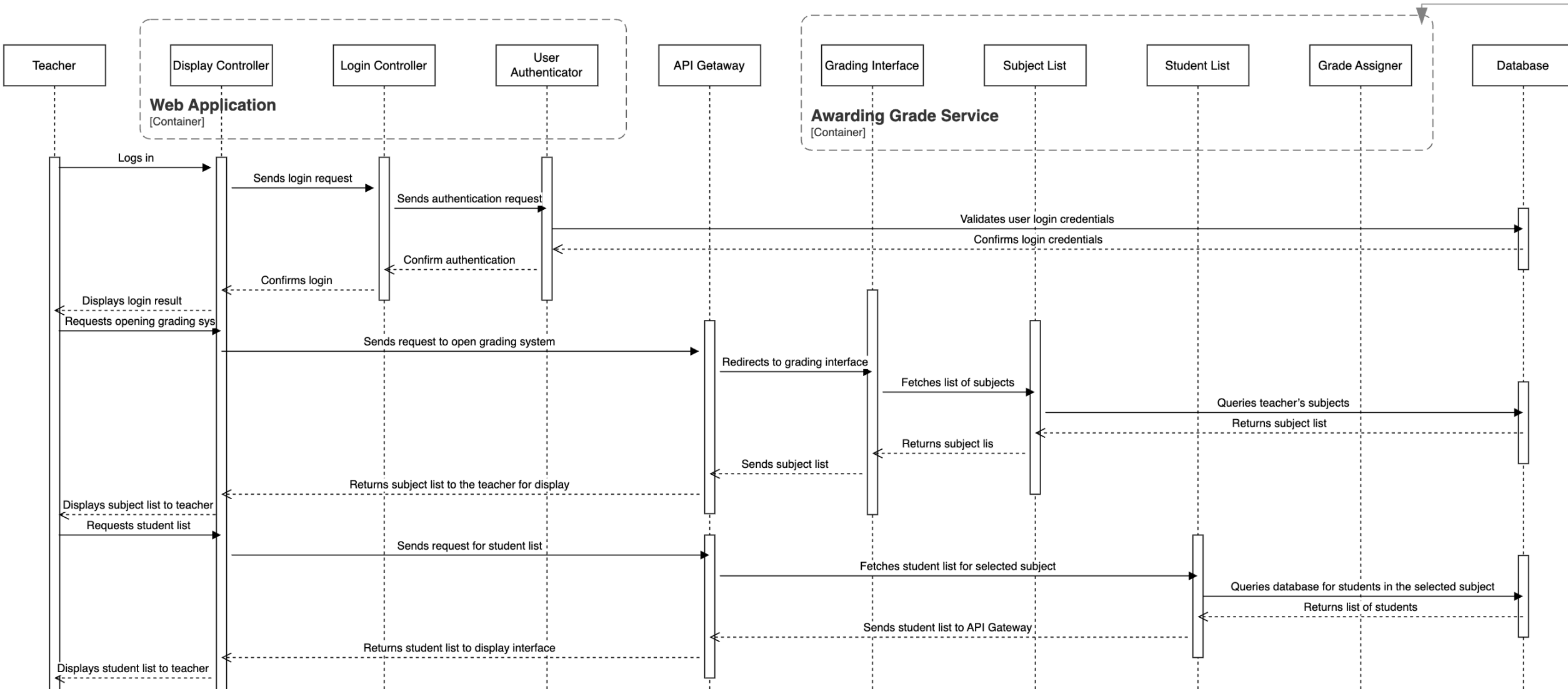




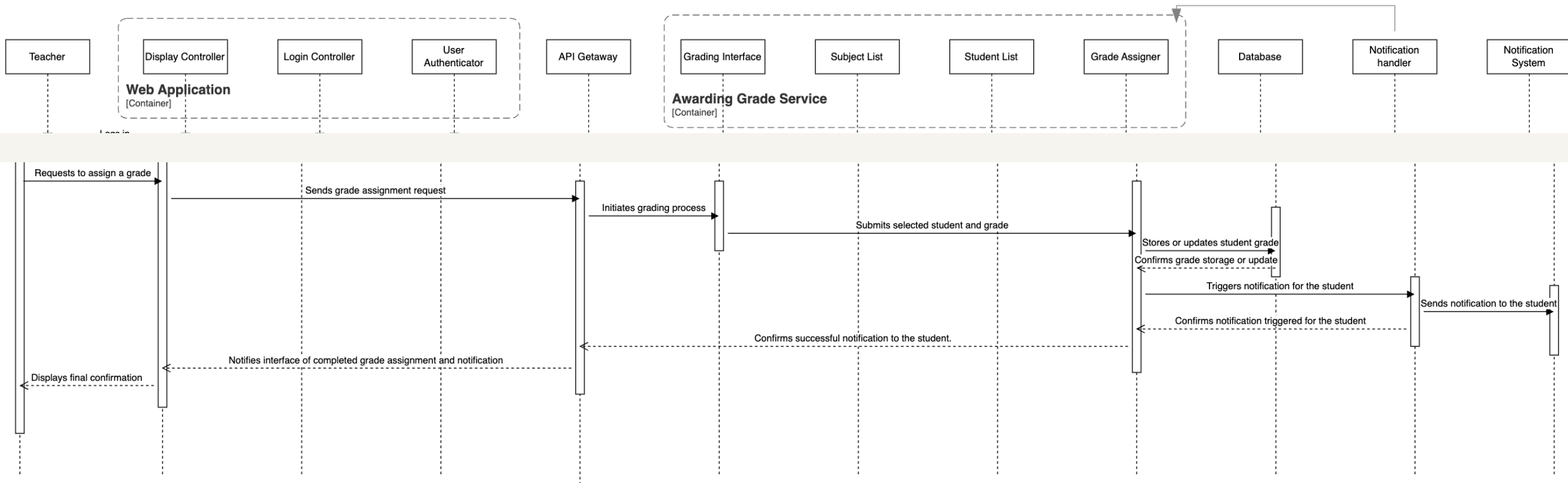
# L3 Diagram: Exam Registration

- The **Registration Controller** handles exam registration requests.
- The **Eligibility Checker** verifies if a student is eligible to register, based on predefined criteria such as prerequisites or existing registrations.
- The **Deregistration Controller** processes requests from students to cancel their registrations.
- The **Exam Term Controller** is vital for displaying the available exam terms.
- The **Subject Controller** manages the list of subjects and applies filters, such as teacher assignments or availability, to provide students with tailored results.



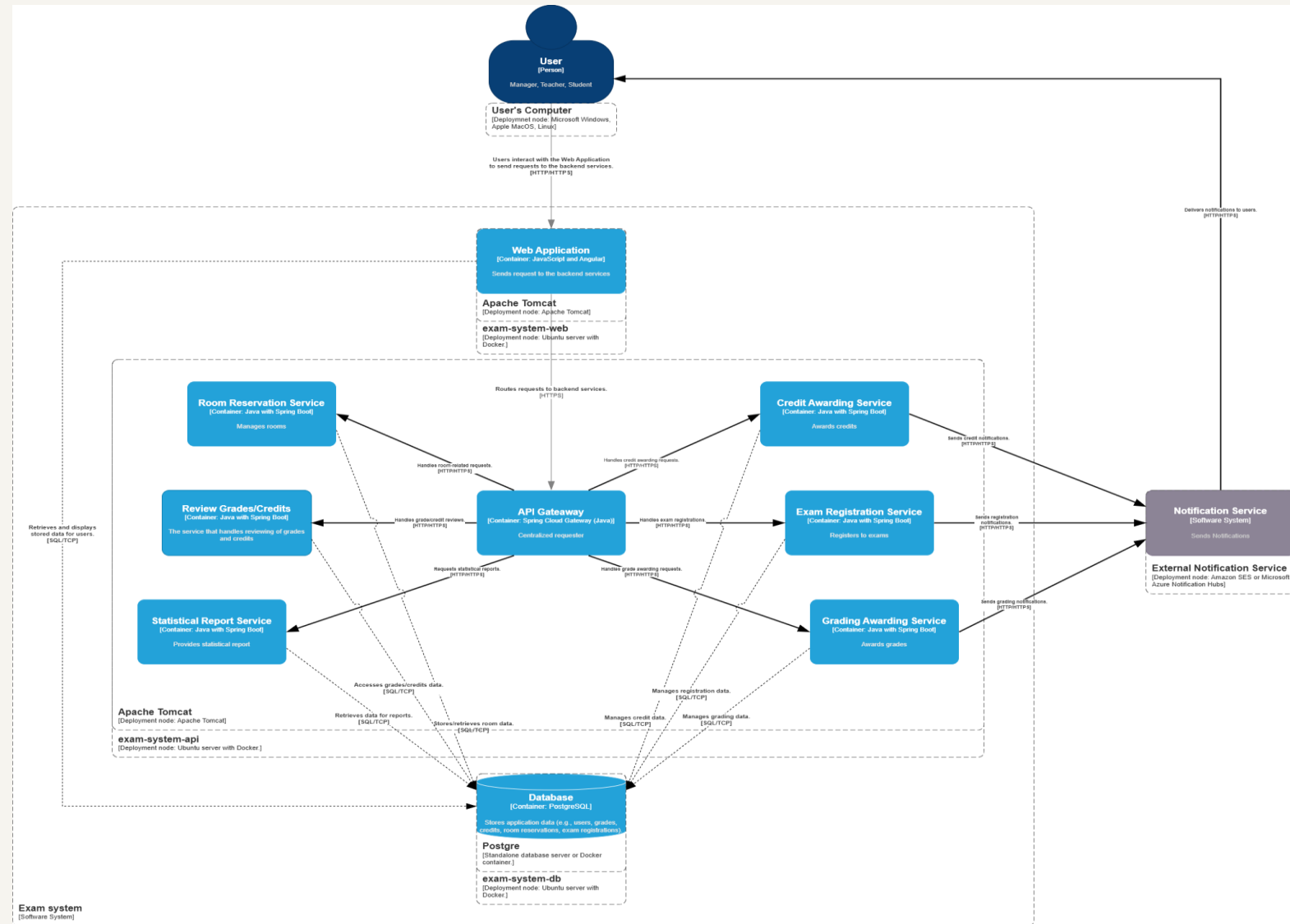


Dynamic Diagram for Awarding Grade Service Made by Yaren Delfin Özen

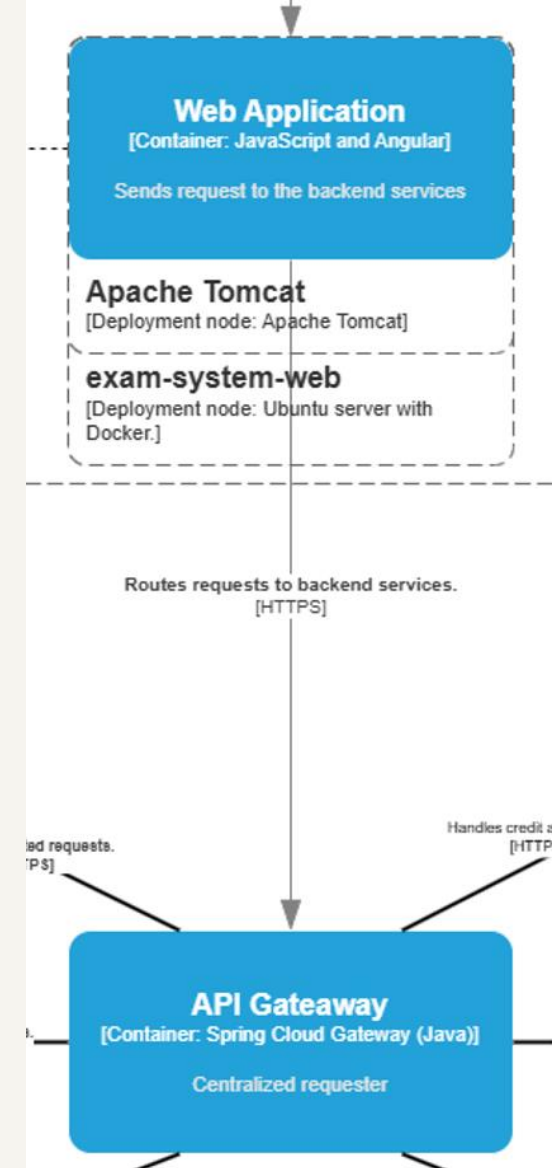
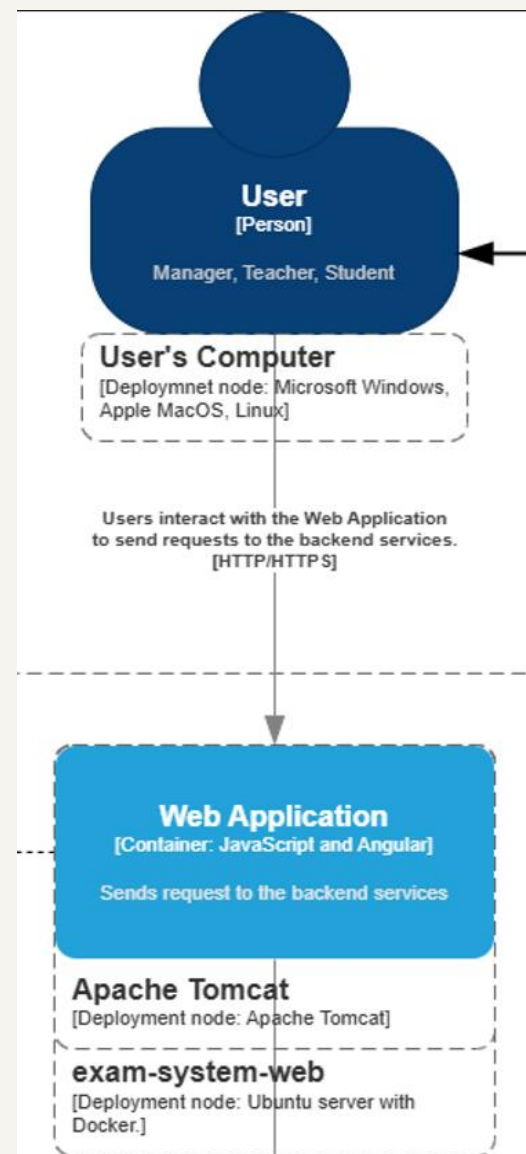


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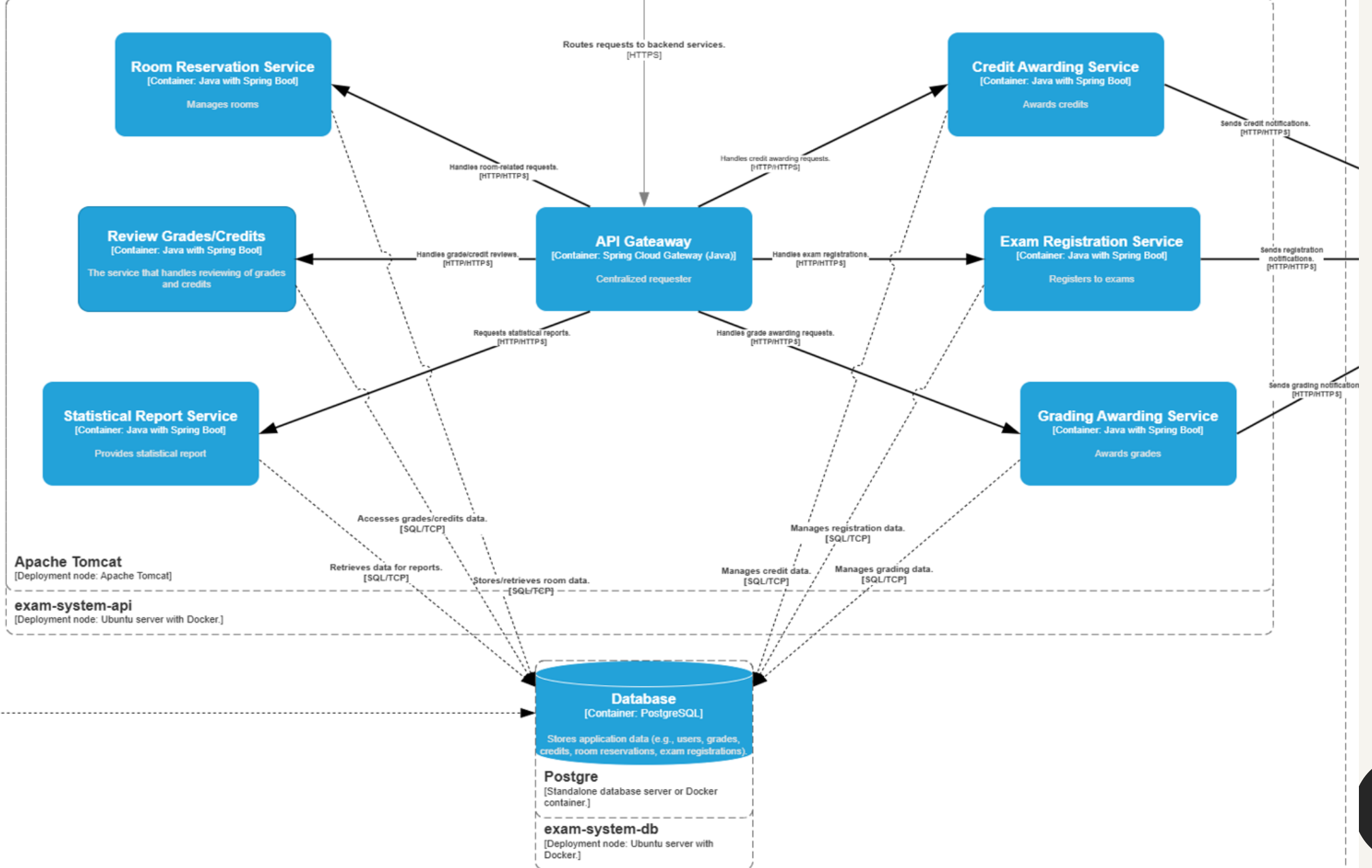
# Deployment Diagram

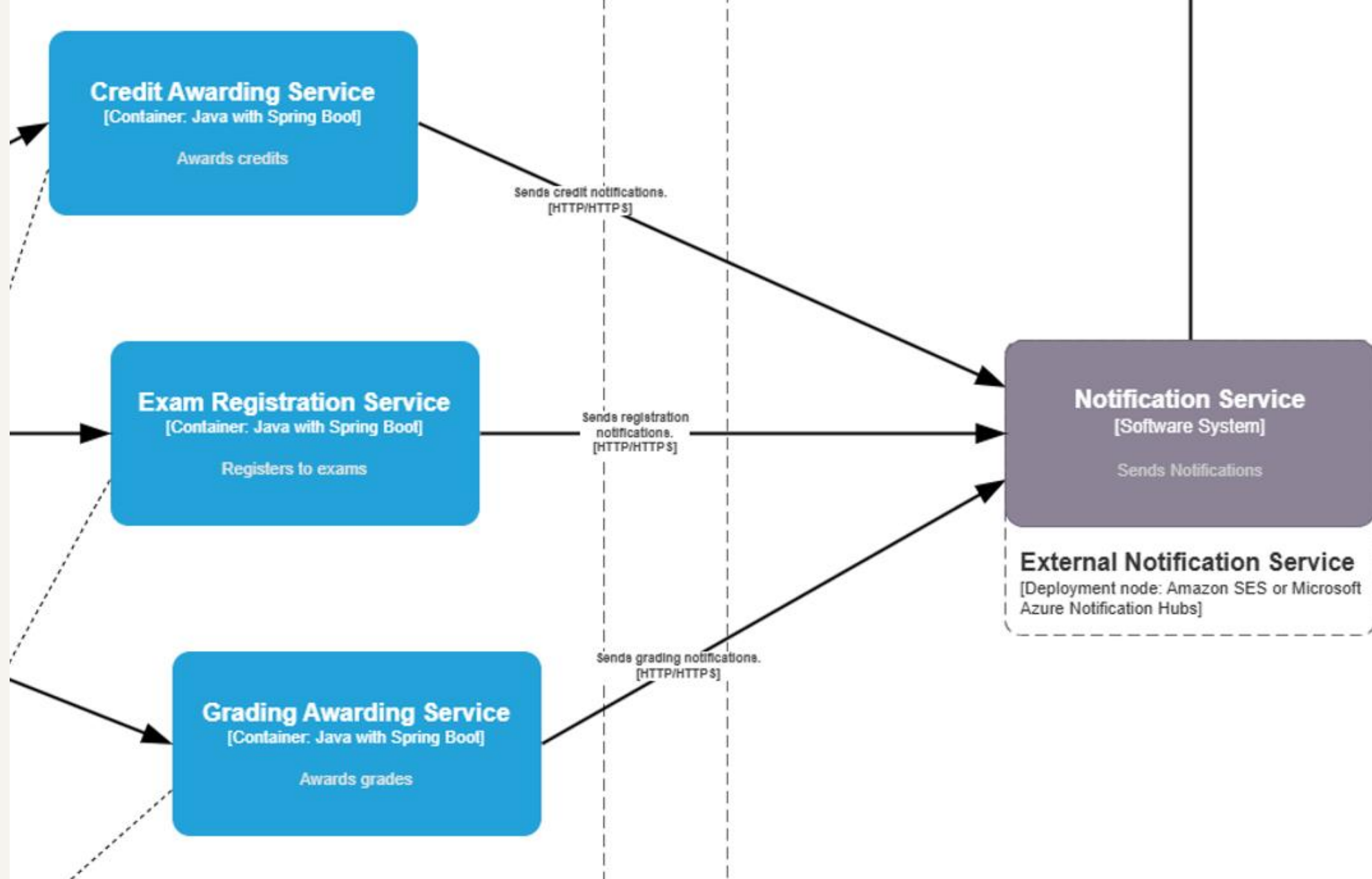


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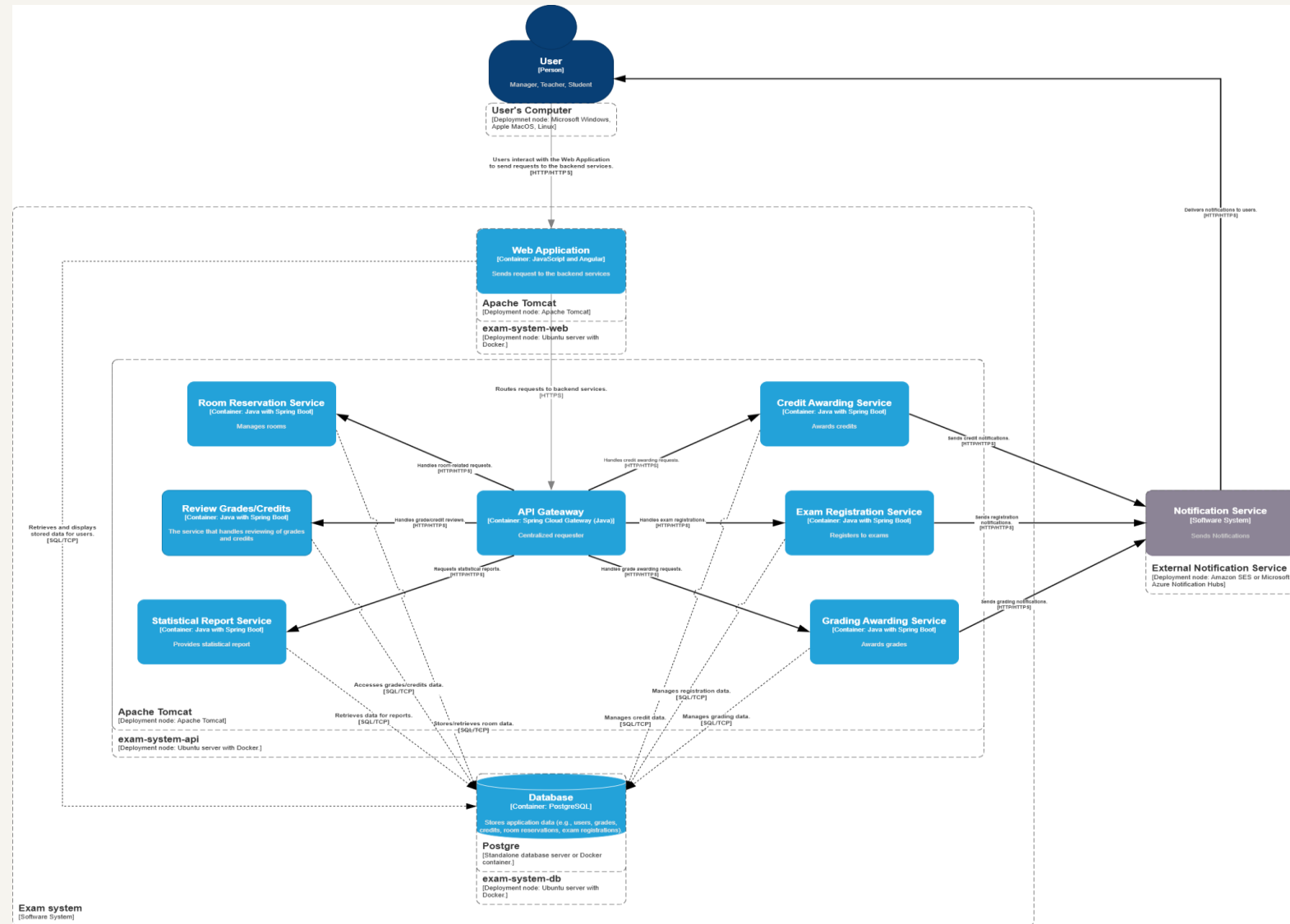
Retrieves and displays  
stored data for users.  
[SQL/TCP]





# Deployment Diagram

Made by Orkhan Abilov





*Thank you!*