

# RASD

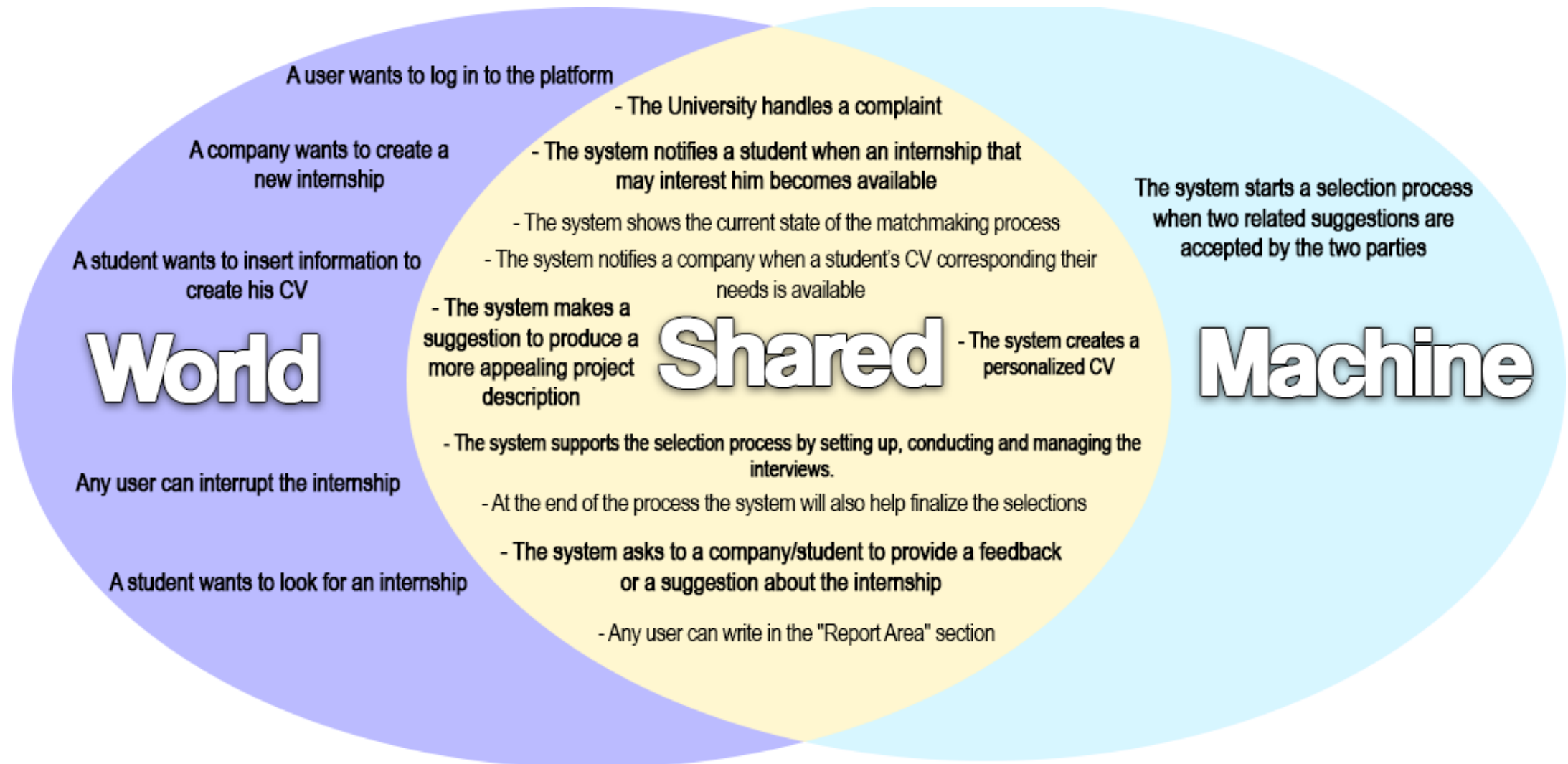
Requirements Analysis and  
Specification Document



# Goals of the System

- G1:** **Students** can insert their experiences, skills and attitudes in the InitialForm
- G2:** **Companies** can post the projects students will work on during their internships with the relative compensation and benefits
- G3:** **Students** can initiate the process by going through the available internships
- G4:** **Students** can be notified when an internship that might interest them becomes available
- G5:** **Companies** can be notified about the availability of students corresponding to their needs
- G6:** **Students** and **Companies** can accept or decline a recommendation
- G7:** **Companies** can interview students
- G8:** **Students** and **Companies** can monitor the execution and the outcomes of the selection procedure
- G9:** **Students** can report on a logbook the daily situation of the internship
- G10:** **Universities** can monitor the status of the internship
- G11:** **Companies** can complain about the current status of the internship
- G12:** **Students** can complain about the current status of the internship

# World and Machine Phenomena



# Assumptions

**D1:** Students are enrolled in the university.

**D2:** The university and the company have an existing authentication system that can be used by the S&C platform.

**D3:** Students, company employee and university employee have an account on the existing authentication system.

**D4:** A student can conduct only one internship at a time.

**D5:** When a student or a company decides to terminate an internship there won't be a way to change the decision made.

**D6:** The matching algorithm and the analysis tool works well.

**D7:** The personalized CVs generated are well done.

**D8:** The recommended job description is well written.

**D9:** A student can write only one logbook at a time.

# Use Cases

**UC1:** Student's first platform access

**UC2:** Student inserts his CV information in the InitialForm

**UC3:** Student search and contact the company

**UC4:** A company publishes an advertisement about the internship they are offering

**UC5:** Student search through the internships and contact the company

**UC6:** A company receives a notification about the availability of a student CV corresponding to their needs

**UC7:** Student gives final feedback about the internship

**UC8:** The University receive the request to end an internship form a student and contacts the company to end it

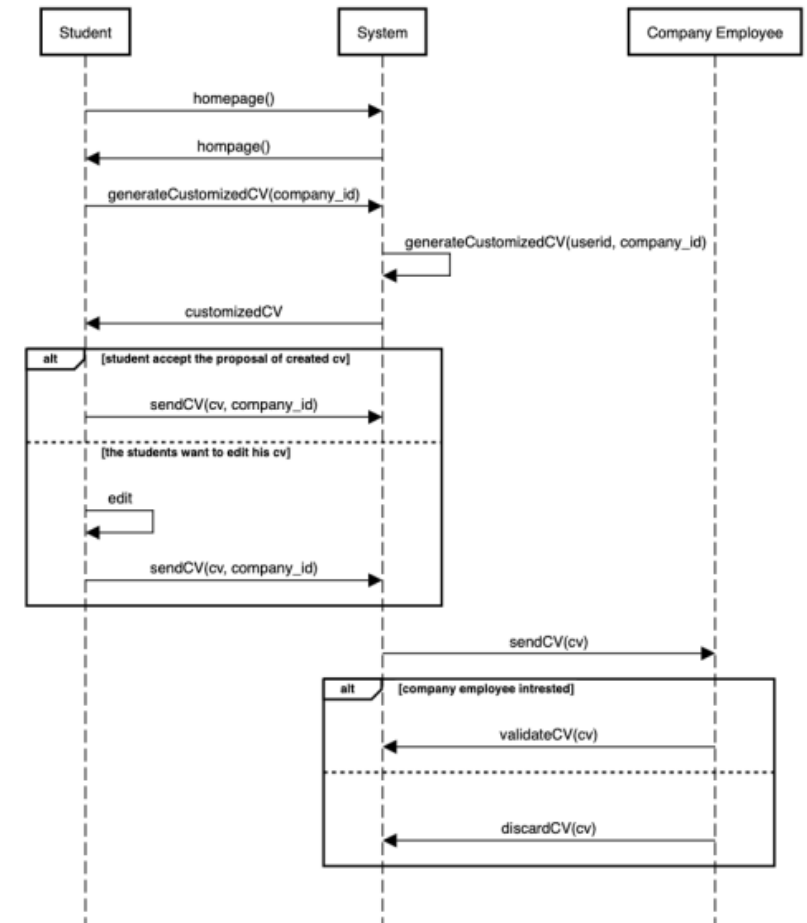
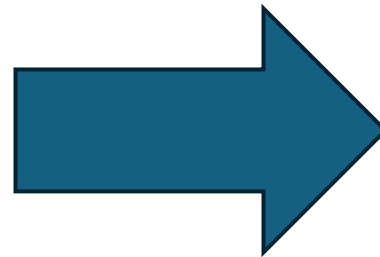
**UC9:** Student complains with the university on the "Report Area" about hi ongoing internship

**UC10:** The company complains about the student in the internship

# UC3: A student search for a company and contacts it

## UC3

<b>Name</b>	Student search and contact the company
<b>Actor</b>	Student, Company Employee
<b>Entry condition</b>	<ul style="list-style-type: none"><li>• Student is already logged in</li><li>• Student has already compiled his Curriculum Vitae</li></ul>
<b>Event flow</b>	<ol style="list-style-type: none"><li>1. The student opens the homepage.</li><li>2. The student clicks on contact button next to the interested company.</li><li>3. The platform generates a customized CV.</li><li>4. The student reads the proposal customized and send it.</li><li>5. The company receives the customized CV.</li></ol>
<b>Exit condition</b>	The company employee approves the student's CV.
<b>Exception</b>	<ul style="list-style-type: none"><li>• The student does not approve the customized CV proposed by the platform. In this case, the student manually modifies it.</li><li>• The company employee does not approve the student's CV. In this case, the employee can reject the proposal.</li></ul>



# Student's homepage



S&C

Hinted search text



**Google - Senior Software engineer**

Java, Python, SQL, Docker, Kubernetes, Cloud Computing



**Facebook - Data scientist**

Python, R, SQL, Machine Learning, Big Data (Spark/Hadoop)



**Nvidia - Cloud architect**

AWS, Azure, Google Cloud, Docker, Kubernetes, IaC



**Apple - UX designer**

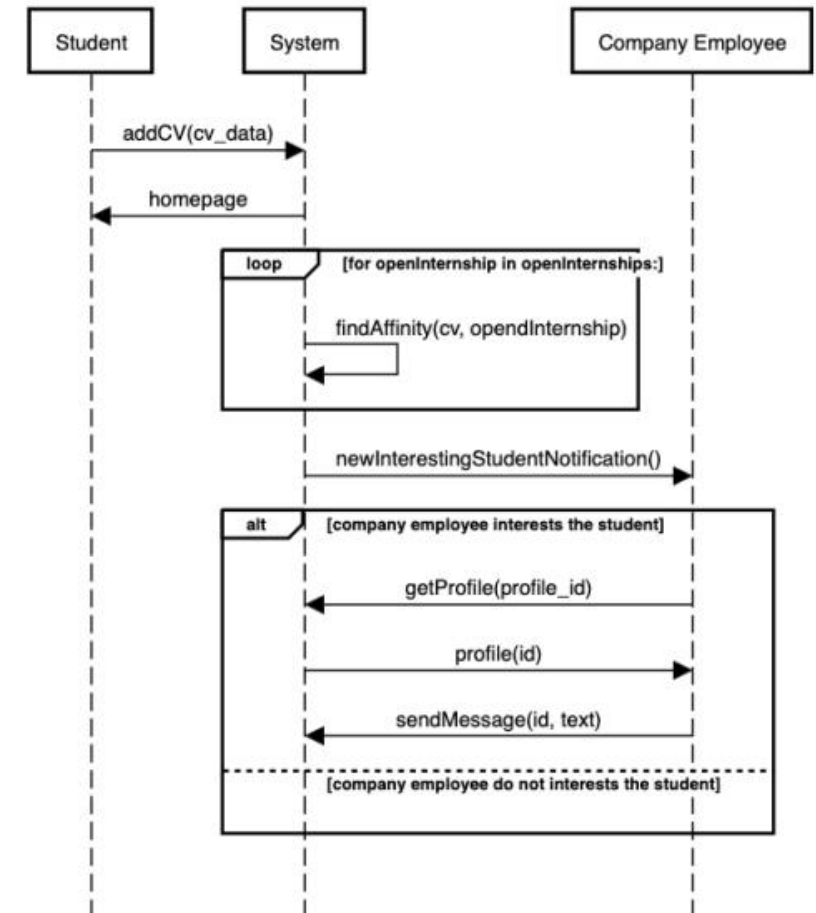
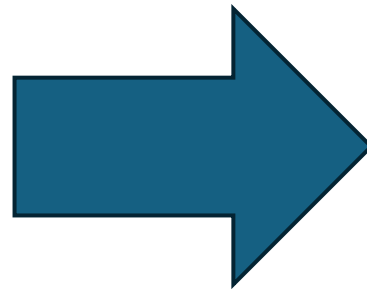




# UC6: company receives a notification about the availability of a student CV corresponding to their needs

## UC6

Name	A company receives a notification about the availability of a student CV corresponding to their needs
Actor	Student, Company Employee
Entry condition	<ul style="list-style-type: none"><li>Students has just completed his "My CV" section</li></ul>
Event flow	<ol style="list-style-type: none"><li>1. The system will start a matchmaking process between the student and opened internship positions.</li><li>2. The system sends a notification to all of the company employees who may be interested in the new student.</li><li>3. The company employee, who receives the notification, clicks on the "View Profile" button to obtain more detailed information about his CV.</li><li>4. The company employee clicks on send message, near the student name, to contact him.</li></ol>
Exit condition	The company employee sends a message to the student
Exception	The company employee does not really feel interested in the student's proposal. In this case, he just ignores the mail.





# Company's homepage



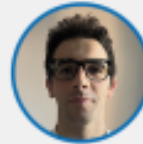
S&C

Hinted search text



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Data science student



**Mattia Rainieri**

Design student



**Matteo Debuschi**



# Important requirements

**R2:** The system shall allow the student to provide information for their CVs.

**R3:** The system shall allow the students to join an internship.

**R4:** The system shall allow the students to be notified when a new applicable internship becomes available.

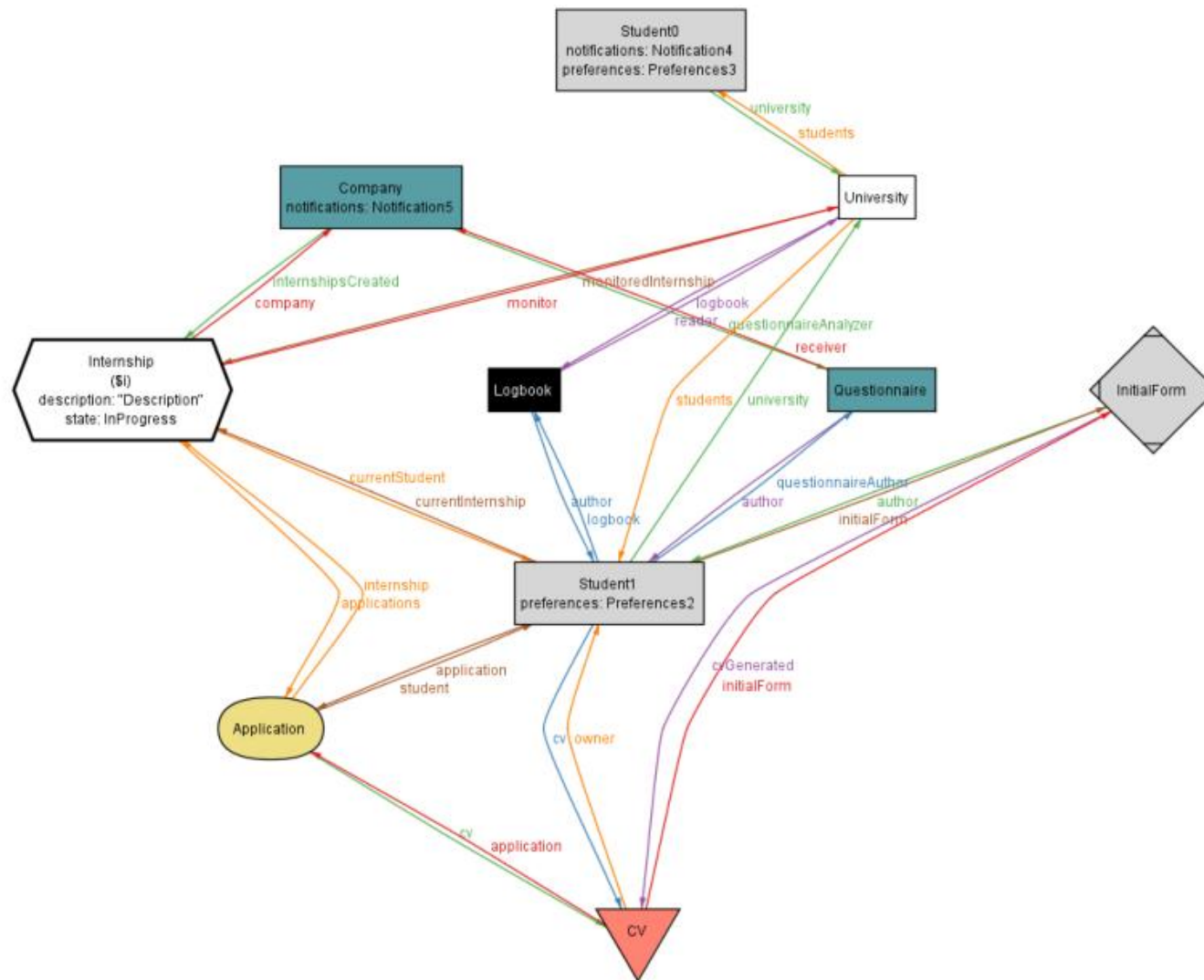
**R5:** The system shall allow the company employee to create an internship.

**R6:** The system shall allow the company employee to be notified when a new potentially interesting student becomes available.

**R7:** The system shall allow the student to view a personalized homepage after inserting his CV's information.

**R8:** The system shall allow the company employee to view a personalized homepage after publishing an internship.

# Alloy Model

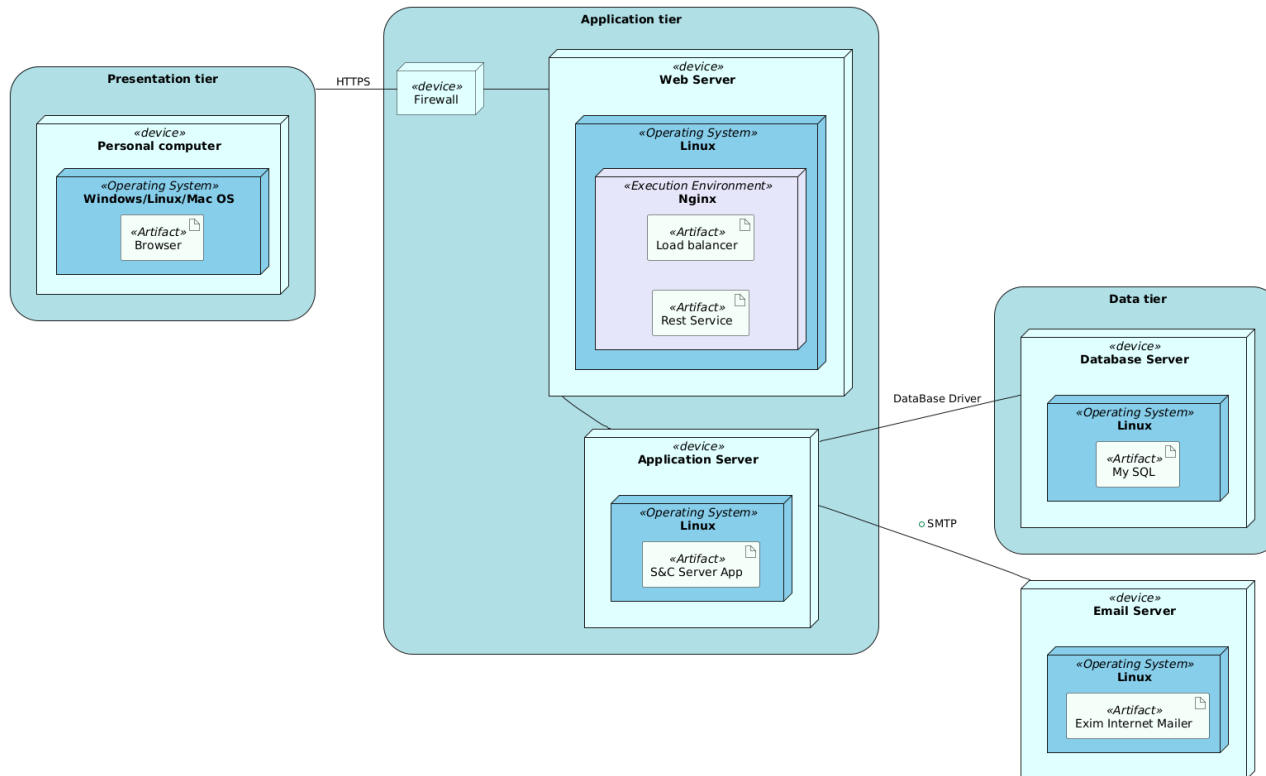


# DD

Design Document



# Architectural Design



Deployment Diagram is a Structural UML Diagram that shows the physical deployment of software components on hardware nodes.

- Personal Computer
- Firewall
- Web Server
- Application Server
- Database
- Email

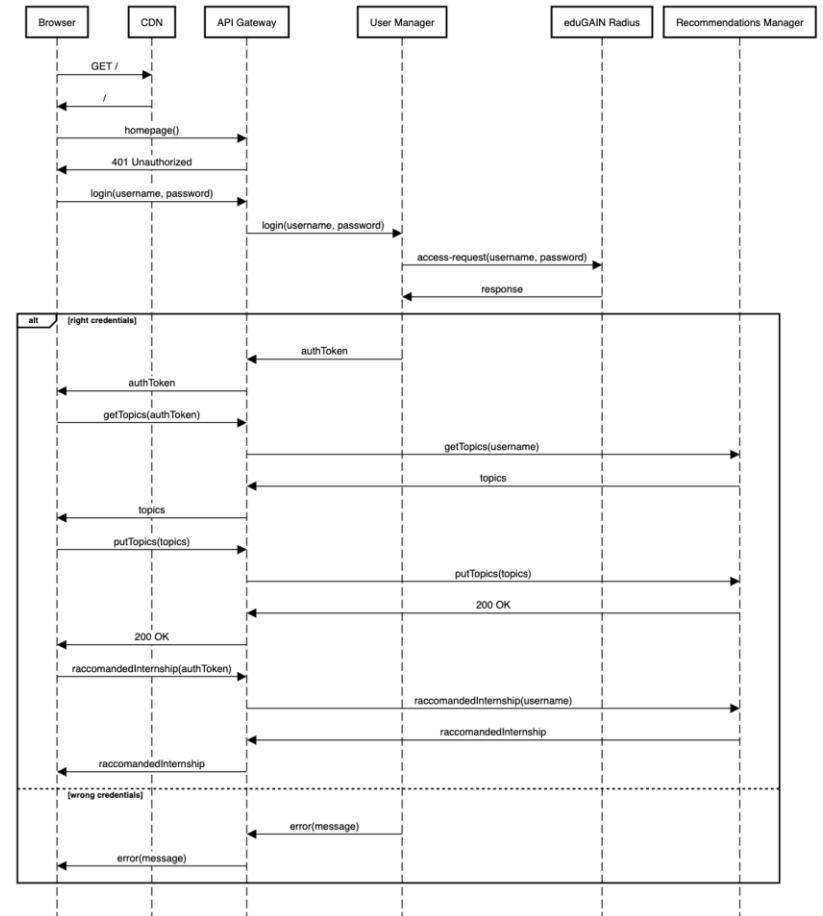
*Deployment Diagram*

# Requirements Traceability

ID	Requirement	Component
R2	The system shall allow the student to provide information for their CVs.	Platform Manager
R3	The system shall allow the students to join an internship.	Platform Manager
R4	The system shall allow the students to be notified when a new applicable internship becomes available.	Reccomendations Manager, Notification Manager
R5	The system shall allow the company employee to create an internship.	Reccomendations Manager
R6	The system shall allow the company employee to be notified when a new potentially interesting student becomes available.	Reccomendations Manager, Notification Manager
R7	The system shall allow the student to view a personalized homepage after inserting his CV's information.	Reccomendations Manager
R8	The system shall allow the company employee to view a personalized homepage after publishing an internship.	<u>Reccomendations Manager</u>

# Runtime view

## RW1: Student's first platform access



*Runtime View*

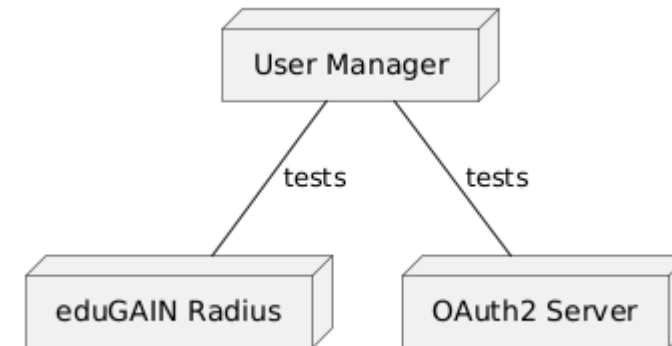


# Implementation, Integration and Test Plan

The tests were divided into the following categories:

- **Functional Testing** - in order check the presence of bugs.
- **Performance Testing** - in other to check if the system is responsive.
- **Stress Testing** - in order to simulate intensive use in a real-world scenario

Component integration and testing



*Login feature test*

**Thanks for the  
attention**

**Mattia Brianti, Alex Hathaway, Mattia Rainieri**