



S&C

Students&Companies

Alessandro De Matteis
Margherita Marino
Giorgio Monaco

Goals

- [G1]:** Students would like to find internships that better align with their interests and field of study.
- [G2]:** Companies would like to offer internships to students who best match the related figure.
- [G3]:** Improve communication and coordination between students and companies in the selection process.
- [G4]:** Evolve the recommendation system through feedback and suggestions to improve future matches.
- [G5]:** Universities would like to monitor internships and handle any emerging issues promptly.

Key Requirements

4-21

The system should provide personalized suggestions to improve student CVs and make company internship postings more appealing to students.

9-24

The system should enable both students and companies to provide feedback, suggestions, and ratings to improve the recommendation process.

14-28

The system should provide both students and companies with a mechanism to report issues or complaints related to their ongoing internships.

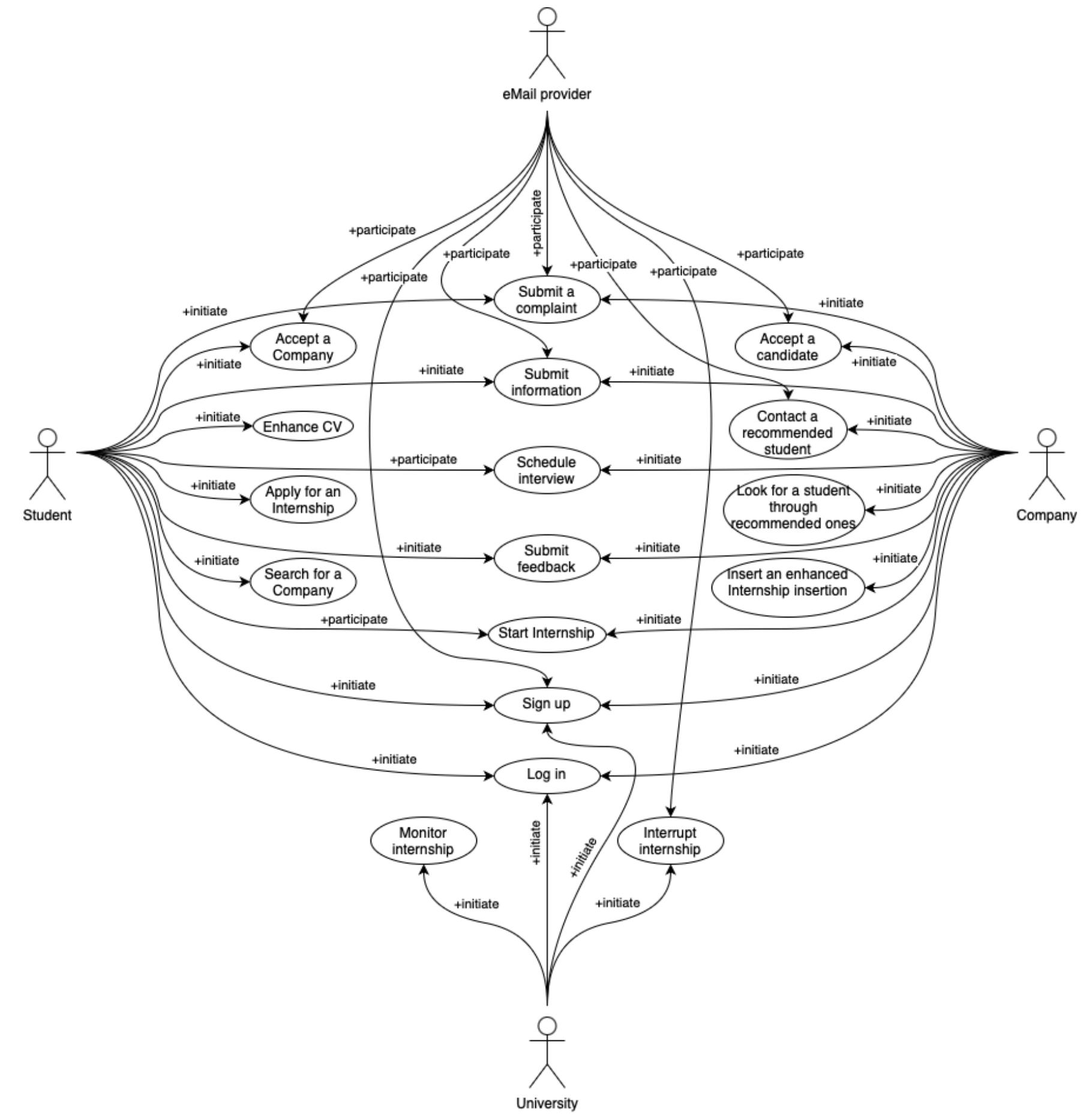
35

The system should allow Universities to interrupt ongoing internships of their students when a complaint was submitted.

Use Case

UC Diagram

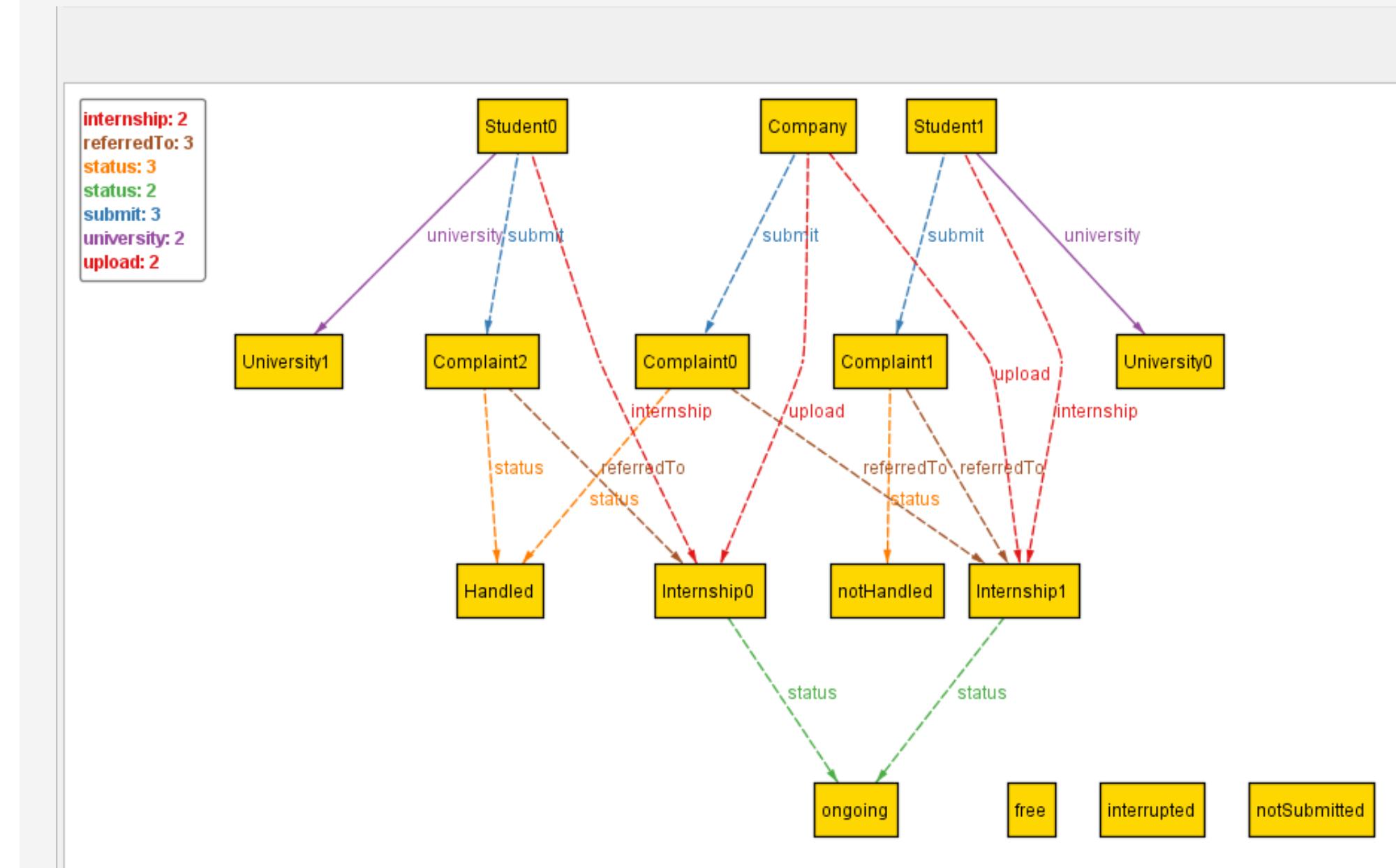
Diagram including all the use cases analysed, with all the users involved. Each use case has his corresponding sequence diagram, before and after the implementation of the architecture.



Alloy Model

Example of a possible world by running predicate Show.

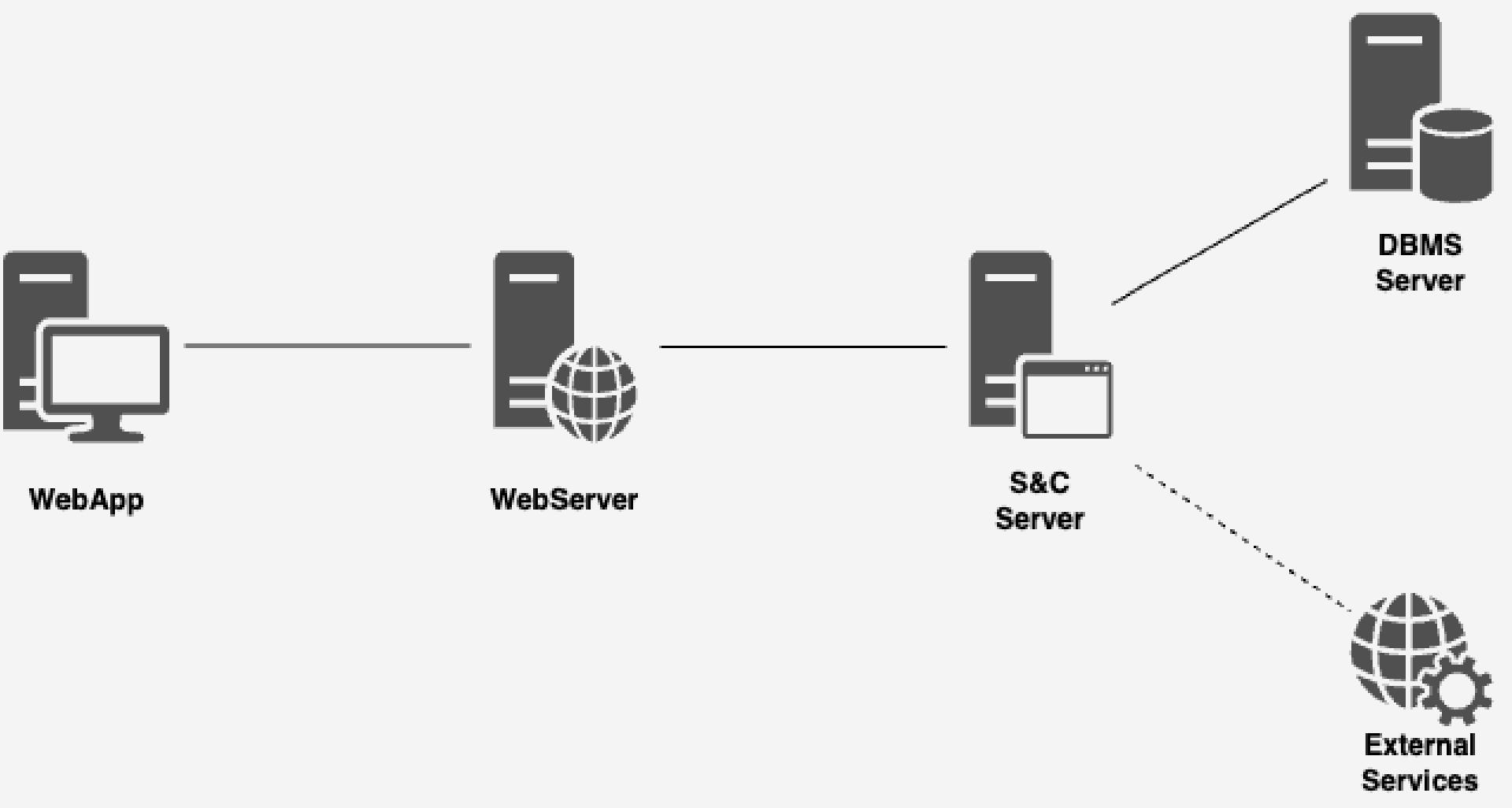
In our dynamic model in Alloy, we have verified all possible interactions between the most functional entities of the program, thoroughly examining all potential state transitions as well as the possible additions and deletions of relationships.



Software Architecture

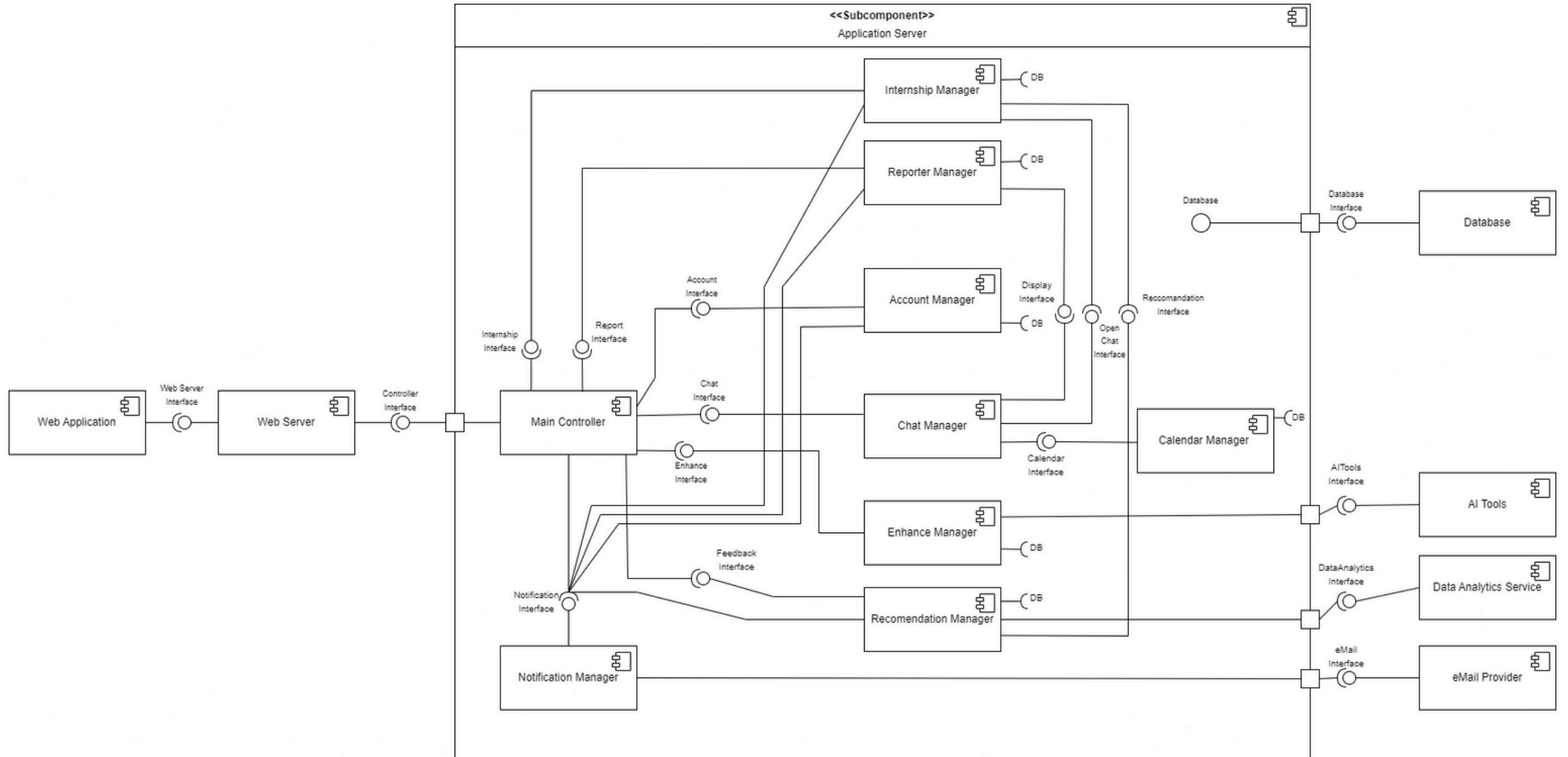
The architectural design of the S&C system is based on a modular and scalable 4-tier architecture.

This structure ensures a clear separation of responsibilities, improves maintainability, and supports efficient interactions between components.



Component View

The component diagram below illustrates the primary components of the system and their interactions across the four tiers.



Architectural Styles and Patterns



Model-View-Controller
MVC



Observer Pattern



Repository Pattern



**Security
Enhancement**

Implementation, Integration and Test Plan

The implementation and integration of the S&C application will adopt a **Bottom-Up** strategy. This method begins by focusing on the foundational components located at the lower levels of the uses hierarchy.

Each stage is built on the previous one, ensuring a stable foundation for the subsequent layers and modules.

System Testing ensures all modules function cohesively and meet requirements. The process includes:

- **Unit Testing**
- **Integration Testing**
- **Functional Testing**
- **Performance Testing**

User Interfaces



EN ▾

S&C

Welcome To S&C

Student

Company

Connect with top companies for internships and job opportunities.
Gain real-world experience and kickstart your career.

Username or Email

Password

Log in

Don't you have an account yet?

Sign up

[Are you a University?](#)



Access Page



My Profile

Calendar

My profile

Bio

First Name

Giovanni

Date of birth

25/02/1998

CV

GiovanniCV.pdf

Upload

Enhance

Last Name

Rossi

City

Milan

University

Politecnico di Milano

Mobile Number

+39 34xxxxx821

Security

Current Password

Email

giorossi98@gmail.com

Modify

Suggestions

- Highlight Skills: Add tools like Tableau, SQL, Python, and Power BI.
- Quantify Achievements: Include metrics like "Improved efficiency by 15% through data analysis."
- Include Certifications: List relevant certifications (e.g., Google Data Analytics).
- Focus on Projects: Showcase dashboards, data cleaning, or...



Profile Page

User Interfaces

The screenshot shows a mobile application interface for providing feedback on a job recommendation. At the top, there are navigation icons: a user profile, 'S&C', a home icon, a list icon, and a bell icon. Below these are settings, help, and account icons.

Recommended for you
Software Engineer Intern - Backend Development

Rate your Recommendation

How did we do? Share your thoughts on the recommendations!

☆ ☆ ☆ ☆ ☆

Tell us what you liked or what we could improve...

Write what you think...

Submit

Apply

• Familiarity with SQL/NoSQL databases and version control (Git).

Submit Feedback

The screenshot shows a mobile application interface for managing job interviews. At the top, there are navigation icons: a user profile, 'S&C', a home icon, a list icon, and a bell icon. Below these are settings, help, and account icons.

Chat

Zoogle Inc. San Francisco, California

Lacebook Inc. Dallas, Texas

Amazon Inc. London, UK

IPM Rome, Italy

eBay Corp. Berlin, Germany

Zoogle Inc. San Francisco, California

INTERVIEW
Product Manager, Data Platform
Where: [link](#)
When: 10-01-2025 at 15:00

Decline Accept

Send

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THANK YOU

FOR YOUR NICE ATTENTION