

# SCUOLA DI INGEGNERIA INDUSTRIALE E DELL'INFORMAZIONE

# **RASD** Document

Version 1.0

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# Document details

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## 1 Introduction

## 1.1 Purpose

Students&Companies (S&C) is an internship university platform that allows matching between students seeking internships and companies offering them. The platform's goal is to facilitate the process of matching students with companies based on student skills, experiences, and interests with the needs and opportunities provided by companies.

There are mainly two ways to establish a connection between the two parties:

- Recommendation system: Whenever a new internship becomes available, students compatible with the requirements specified by the company get notified and can decide to apply.
- **Proactive searching**: Students can go through the available internships and apply for the ones they are interested in.

When an internship starts through the recommendation system, S&C collects various kinds of information regarding the quality of the recommendation, for example by asking students and companies to provide feedback and suggestions.

The platform helps with the selection process by managing interviews and finalizing choices. It also offers spaces where users can report issues, share concerns, and give updates on the status of an ongoing internship.

#### 1.1.1 Goals

#### • [G1] - Student can create an account

Students need to select from a list containing all affiliated universities and then they can create their account using their institutional credentials to verify their status as a student. In addition they have to add their CV, a list of their interests and optionally a list of companies that might interest them.

## • [G2] - Company can create an account

Companies need to create their account using a certified email to verify the legitimacy of the company.

In addition they can add a detailed description and a list of previous projects that might help them stand out more.

## • [G3] - Users can update their accounts

Through a dedicated sections users can update the information stored in their account.

#### • [G4] - Companies can create internships

A company that has an account on the platform, after logging in using the credentials chosen during the sign up process, can create an internship specifying the skills, experiences and interests required.

#### • [G5] - Students can view all available internships

A student that has an account on the platform, after logging in using the credentials chosen during the sign up process, can navigate through the available internships created by different companies via a specific search system.

#### • [G6] - Companies can create forms for students to fill

The application has a dedicated section that allows companies to create forms for the internship they are posting.

## • [G7] - Recommendation system

Whenever a company creates an internship, all the students that satisfy the requirements specified in the offer are notified. All the students interested in the internship have limited time to apply. At the end of this period, the applications are closed and the list of interested students are sent to the company, that could decide to select a smaller group of students for the selection process.

## • [G8] - Students can apply for the internships

When proactively searching for internships, students can choose the ones that interest them the most and apply for them.

## • [G9] - Form evaluation

The company evaluates all the submitted forms for an internship by giving a score to each one.

## • [G10] - Ranking candidates

A ranking of the candidates will be created at the end of the form evaluation stage based on the scores achieved in the questionnaires and updated at the end of the interviewing stage.

## • [G11] - Users can provide feedbacks

When an internship starts through the recommendation system, both students and companies can provide feedback regarding the quality of the recommendations offered by the system.

## • [G12] - Complaints management

During an internship both parties, companies and students, can use an ad hoc function to write complaints regarding the other party.

#### 1.2 Scope

The platform facilitates interaction between three distinct user categories:

- Companies (internship providers)
- Students (possible candidates)
- Universities (complaint managers)

Companies maintain primary responsibility for internship creation and management. Each internship posting must provide this information:

- Required skills
- Relevant past experiences
- Candidate interests

During the internship posting, the company can create forms to be filled by the students. In the course of the selection process, performance metrics are collected through the submitted application's form and a final ranking of the candidates is generated. Internship positions will be allocated according to the candidate's rank and the number of available slots.

Students can apply for the internship that interest them and if the company accepts they will move to the selection process.

Universities can monitor the status of ongoing internships that involve their students and in extreme cases they might interrupt them.

## 1.2.1 World phenomena

- **WP1** Company treats students in a bad manner.
- WP2 Student behaves in a non suitable manner during an internship.
- WP3 Company thinks about hosting an internship and prepares accordingly.
- WP4 Student prepares the resume for the creation of an account.
- **WP5** Student does internship.
- **WP6** Company interviews a student through a third-party application.

## 1.2.2 Shared phenomena

- **SP1** User registers a new account. (World Controlled)
- SP2 User logs in. (World Controlled)
- SP3 Students proactively search for an internship. (World Controlled)
- SP4 The system shows a list of internships to the student. (Machine Controlled)
- **SP5** The company inserts data regarding the internship they are creating. (World Controlled)
- **SP6** The system sends notifications to the users. (Machine Controlled)
- SP7 The system terminates the application process at the end of the predetermined period, avoiding further student applications. (Machine Controlled)
- SP8 The system sends the list of students that applied for the internship to the company. (Machine Controlled)
- **SP9** The system sends the forms to the accepted students. (Machine Controlled)
- **SP10** The university monitors an internship. (World Controlled)

## 1.2.3 Machine phenomena

- MP1 The system validates the users identity for the registration.
- MP2 The system checks the credentials of the user for the log in.
- MP3 The system validates data before allowing a user to change its information in the account.
- MP4 The system validates and stores the data regarding a newly created internship.
- MP5 After the creation of an internship, the system identifies compatible students.
- MP6 The system dynamically updates the ranking of candidates after the submission of the score of a student.

## 1.3 Definitions, acronyms and abbreviations

#### 1.3.1 Definitions

- Users → The users of the applications are students, representatives of a company or a university.
- **Internship** → It refers to projects created by companies to allow students to gain experience in a professional context.
- Posting → It is the act of creating an internship and rendering it public for the students to view.
- **Proactive searching** → Indicates the action performed by a student to take the initiative and look for the internship that interests them the most.
- **Apply for internship** → Indicates the action performed by a student to inform the company responsible for that internship of their interest in participating.
- Questionnaires/Forms → They are both used to represent the same concept of a list of questions created by the company to evaluate the candidates.
- **Score** → The score of a form is the sum of the points achieved in each question. Since each question has a maximum limit of points, then the whole form will have such a limit.
- Feedback → It represent the opinion of the user regarding a specific feature that they
  tried out.
- Resume  $\rightarrow$  It is the same as referring to a CV.
- Certified account → It refers to an account that when used for sign up or log in action, it redirects the user to the page of the organization.
- Screening → It refers to the process done by a company right after the applications deadline, during which only a part of the candidates are selected based on their CV and interests.
- Third-party  $\rightarrow$  It refers to a company that provides an auxiliary product not supplied by the primary manufacturer.

## 1.3.2 Acronyms

- $S\&C \rightarrow Students\&Companies$ , the name of the application.
- ullet CV o Curriculum Vitae, is a short written summary of a person's career, qualifications, and education.
- $\mathbf{HR} \to \mathbf{Human}$  Resource, is a department that manages employees.

### 1.3.3 Abbreviations

- $\mathbf{Gn} \to \mathbf{It}$  is used to list all the goals and the n stands for the  $n_{th}$  goal described.
- **WPn**  $\rightarrow$  It is used to list all the world phenomena and the n stands for the  $n_{th}$  phenomena described.
- $\mathbf{SPn} \to \mathbf{It}$  is used to list all the shared phenomena and the n stands for the  $n_{th}$  phenomena described.

- MPn  $\rightarrow$  It is used to list all the machine phenomena and the n stands for the  $n_{th}$  phenomena described.
- $\mathbf{RAn} \to \mathbf{It}$  is used to list all the requirements related account management and the n stands for the  $n_{th}$  requirement described.
- $\mathbf{RIn} \to \mathbf{It}$  is used to list all the requirements related to internships and the n stands for the  $n_{th}$  requirement described.
- $\mathbf{RNn} \to \mathbf{It}$  is used to list all the requirements related to notifications and the n stands for the  $n_{th}$  requirement described.
- RFn  $\rightarrow$  It is used to list all the requirements related to forms and the n stands for the  $n_{th}$  requirement described.
- $\mathbf{RRn} \to \mathbf{It}$  is used to list all the requirements related to reports and the n stands for the  $n_{th}$  requirement described.
- UCn  $\rightarrow$  It is used to list all the use cases and the n stands for the  $n_{th}$  case described.

## 1.4 Revision history

• Version  $1.0 \rightarrow \mathbf{WIP}$ 

## 1.5 Reference documents

## 1.6 Document structure

### • Section 1: Introduction

This section is designed to offer a brief overview of the project, explaining the functionality required for the correct behavior of the application. It also presents a list of definitions, acronyms and abbreviations that could be found in this document.

#### • Section 2: Overall description

This section presents the structure of the system, with all the possible scenarios and the description of the most important functions that needs to be present in the application. Here is also possible to learn about the domain assumptions that allow the system work as intended.

#### • Section 3: Specific requirements

This section presents a precise description of every important use case and, through the goal-assumptions-requirements mapping, it emphasize the role of each functionality in reaching each goal requested by the client.

It's also possible to understand the various constraints under which the system operates and the software's system attributes.

## • Section 4: Formal analysis using Alloy

This section presents a formal description of the system through the Alloy language.

#### • Section 5: Effort spent

This section presents the number of hours spent per each person of the group for each section.

## 2 Overall description

## 2.1 Product perspective

#### 2.1.1 Scenarios

## Scenario 1 - ToSoftware wants to advertise its internships

ToSoftware is a big company looking for young talents that could be interested in working full time for them in the future. An HR employee is tasked to design internships and would like to advertise its offers to students. For this purpose he creates an S&C account using his work email, he also need to provide his personal information and some details about the company. After the creation has been completed he starts creating the post for an internship including details such as the project domain, tasks, required skills/experiences, the applications deadline and any other relevant information.

## Scenario 2 - Bob wants to do an internship

Bob is a third year student at the Genius University and thinks about gaining some work experience, but he does not know from where to start from. His friend Sam tells him about S&C, so he creates an account by choosing Genius University from the available list, enters his institutional email and also adds his interests and CV. At this point he starts looking for an internship, using the search-bar he inserts some keywords to ensure he finds something he is interested in. After confirming the filters, Bob is presented with a list of internships that satisfy the inserted keywords, he selects the one he finds more suitable for himself and applies for it.

## Scenario 3 - Sekiro receives a notification through the recommendation system

ToSoftware's S&C's account manager designs an internship that involves helping in the development of its new game "Light Souls" and posts it on the platform. Sekiro is a student of the Genius University, studying computer science. Some time ago he created an S&C account and specified his interest in game development, so as soon as ToSoftware posts the internship, Sekiro receives a notification that informs him about the offer. The notification reports all the important information about the internship:

**Title**: Student experience as game developer

**Description**: We are looking for students willing to have a taste of the working environment at our company while assisting with the development of our new game "Light Souls".

Application deadline: 22<sup>nd</sup> December, 2024

Location: Japan

## Scenario 4 - Sekiro applies for ToSoftware's internship

Sekiro decides that the internship proposed by ToSoftware is perfect for him so he decides to apply for it. The 22<sup>nd</sup> of December (applications' deadline) ToSoftware receives a list of all the students that applied for their internship. Since there are too many candidates they decide to pick a limited number of them. After some time, Sekiro receives a notification saying that his application for the internship was accepted and he has to fill in a form before the 22<sup>nd</sup> of January 2025. As soon as Sekiro submits the form with all the questions answered, ToSoftware's account receives a notification containing the filled form, so an employee gives a score to each answer and saves it. The 22<sup>nd</sup> of January the employee checks the ranking generated by the application and picks the top 10 candidates. Since Sekiro ended up in second place he receives a notification containing the date (22<sup>nd</sup> of February) for an interview and a link to a broom meeting. A week after the interview, Sekiro receives a notification informing him that he passed the final screening

and containing all the necessary info regarding the upcoming internship.

Scenario 5 - ToSoftware shares his opinion regarding the recommendation system ToSoftware's S&C's account manager, notices that all the students participating in the internship are really talented and hard working so he decides to write a feedback to let S&C developer know. As soon as he is done writing it, he sends it and the message is stored in S&C database as a positive feedback.

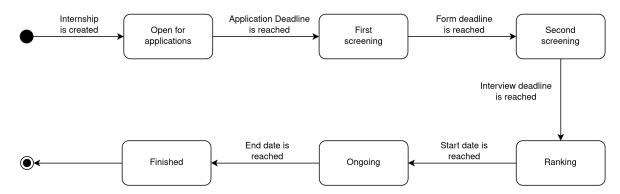
## Scenario 6 - Sekiro is exploited by the company

Since Sekiro is performing incredibly good, ToSoftware's internship manager decides to give him more work to do, even though he knows Sekiro was barely managing the few task he was given before. Noticing the increasing amount of work, Sekiro decides to write a complaint about the company on the platform. The complaint is then saved and can be seen by Sekiro's university (Genius University) using the platform whenever they decide to check how his internship is going.

## 2.1.2 Class Diagram



#### 2.1.3 State Chart



Right after an internship is created its state is the *Open for applications* state, where students can apply for it. Subsequently to the application deadline, the company will have to select the candidates that suit them the most from those who applied, this is during the First screening state. Each selected candidate will receive a notification regarding the result of his application which also includes a form to be filled by a specific date (if they were accepted). Following that date, we arrive at the Second screening state where the company has to evaluate the forms filled by each accepted candidate leading to a total score, which S&C will use to rank all of the candidates. S&C will then choose (possibly among the best scoring) a subset of those students, all candidates will receive a notification with the result and for those that have been chosen it will also contain a link to a third-party online meeting platform and the date of the interview. After the aforementioned date, we reach the Ranking state where the remaining candidates will be further evaluated according to their performance during the interview. This will result in a conclusive ranking which will be used to decide the students that will be accepted for the internship. Finally, we have the Ongoing and Finished states that are indicating when the internship is effectively in progress (here both parties can submit complaints) and when it is complete; after which feedback will be asked from students in case they received the offer through the recommendation system. At this point, the internship will be archived as a past project of the company.

#### 2.2 Product functions

## • Sign-up and login

Both of these functionalities are going to be available to all user categories.

The sign-up functionality allows users to create a verified account to use on the platform. Each user will be asked to provide personal data such as name, surname, email, username and password. The user category will be recognized based on the domain of the email used for the sin-up.

The login functionality allows user to gain access to an already existing account using the credentials used during sign-up.

## • Update account information

This functionality is only available for all user categories.

A student can only update a new CV and change its interests, since all the personal information are extracted from the institutional email.

A company can only update the description and add old projects.

### • Post internship

This functionality is available only for companies. It allows them to create a new post based on an internship they designed. The post must contain a title, a description describing the various activities, the skills required from the candidates to have a chance in being chosen.

It also needs all the deadlines like the applications deadline, after which students are not allow to apply for the internship, and the form compilation deadline, that can be added after the applications deadline. And lastly it needs to specify the location and the period of the internship.

#### • Create a custom form

This functionality is available only for companies. At some point companies need to create a form that allows the to select faster the candidates for the internship. The form is created by adding a list of questions and for each question it needs to be specified a maximum score that will be used to generate the ranking during the selection process. The form can be created at any time, during the posting process or even before the screening.

## • Search for specific internships

This functionality is available for all user categories, but is designed to be used mostly by students. Through a search bar users can look for specific internships or use keywords to filter through the one they are seeking.

## • Apply for internship

This functionality is only available for students. This action is going to save the student as a candidate for the internship. At the end of the applications deadline, his CV will be sent to the company with to ones of all the other students that applied for the same internship.

#### • Screen candidates

This functionality is only available for companies. When the applications period ends and the company is sent the list of candidates, the company's employee will be able to select the candidates that he considers suitable for the internship and discard the one that are not.

#### • Evaluate form

This functionality is only available for companies. When the company receives a submitted form, this functionality allows them to check the answers given by the candidate and grade them. Once all the answers has been graded and the company's employee closes the form, the system evaluates the total score and adds it to the ranking.

### • Send feedback

This functionality is only available for all user categories. Using this feature user can share their opinion with S&C developers regarding the functionalites implemented in the software.

### 2.3 User characteristics

In this section it is provided a more distinct characterization of the two user categories of the platform.

## 2.3.1 Company

A company is a representative of a company that wants to advertise its internships. After creating an account as a company, the user gains access to all the company reserved functionality such as internship posting, custom form creation, candidates screening and form evaluation.

#### 2.3.2 Student

A student is an individual whose aim is to either improve his skills or make experience in a professional context. To be able to create an account he must be affiliated with a university and own an institutional email.

## 2.3.3 University

A university is an institution whose aim, in the context of S&C application, is to monitor the current status of an internship that involves its students and they are responsible for handling complaints, especially the ones that might require the interruption of the internship.

## 2.4 Assumptions, dependencies and constraints

- A1 All users have a valid active email.
- ${\it A2}$  Students upload the correct file in the CV section of their account.
- A3 Companies post correct information about existing internships.
- A4 Companies create reasonable forms before the applications deadline.
- ${\it A5}$  The recommendation system is reliable enough.
- ${\it A6}$  Companies check all submitted forms and for each of them grade all questions.
- A7 Feedback and complaints provided by users are truthful and accurate.
- $\boldsymbol{A8}$  The platform has a list of all the affiliated universities.

## 3 Specific requirements

## 3.1 External interface requirements

#### 3.1.1 User interfaces

The platform is presented as a series of different pages, each specialized for one or more features with the same scope. The following ones are considered the most important:

## • Login / Sign up page

This page allows the user to choose between one of the two functionalities and insert personal data in different ways based on the option chosen.

## • Home Page

In this page users can visualize all the internships that have per posted. In addition there is a search bar that, by entering keywords, allows user to look for specific types of internships.

## • Internship creation page

This page is available only for companies, and allow them to fill in all the details required to post about an internship.

## • Form design page

This page is available only for companies and it allows them to create custom forms needed to select the candidates that apply for their internship. To create forms, companies write a list of questions and mark them with a maximum score achievable by each one of them. At the end of this process the form can be saved for later use.

#### • Profile page

This page displays all personal information regarding the user logged in the application. It also allows the user to update different information based on the fact that they are students or companies.

### 3.1.2 Hardware interfaces

The application does not need to provide any kind of hardware interface since it's main purpose is advertising internships and establish a connection between students and companies.

#### 3.1.3 Software interfaces

The software will need to use some external interface to guarantee its correct behavior. For example, to guaranteed the validity of an institutional email, it needs the university to confirm the address, and the same goes for the company.

#### 3.1.4 Communication interfaces

The platform exploits the internet connection to communicate with the main server in order to store and retrieve all the necessary information and also to perform automatic actions such as sending notification, identifying compatible students for the recommendation system and closing an internship's application's process according to the specified deadline.

## 3.2 Functional requirements

#### 3.2.1 Functional requirements

## • Account management

- RA1: The platform shall allow users to register.
- RA2: The platform shall allow users to login using their credentials.
- RA3: The platform shall allow users to update their existing account.

## Internships

- RI1: The platform must allow companies to create internships.
- RI2: The platform must allow students to view all available internships<sup>1</sup>.
- RI3: The platform must allow students to search between the available internships.
- RI4: The platform must allow students to apply for any of the available internships.
- RI5: The platfrom must allow students/companies involved in an internship to complain about the other party.

#### • Notifications

- RN1: The platform shall notify students when an internship suitable for them has been posted.
- RN2: The platform shall notify students of the result of the first screening.
- RN3: The platform shall notify students of the final result of the application.
- RN4: The platform shall notify students/companies to fill a feedback form after the end of the internship.
- RN5: The platform shall notify universities whenever a complaint is filed involving one of their students.
- RN6: The platform shall send companies the list of candidates at the end of the application deadline.

#### • Forms

- RF1: The platform shall allow companies to create custom forms.
- RF2: The platform shall allow companies to save created forms for later use in an internship selection process.
- RF3: The platform shall allow companies to send the candidates that passed the first screening the form for the second screening.
- RF4: The platform shall allow students to fill and submit the application form.
- RF5: The platform shall allow companies to evaluate a submitted form by grading each question.

## • Report

- RR1: The platform shall allow student and companies to write a feedback at the end of an internship.
- RR2: The platform shall allow students and companies involved in an internship to write complaints regarding the other party.
- RR3: The platform shall allow universities to read all complaints that involve their students.

<sup>&</sup>lt;sup>1</sup>Available internships are internships created by companies and that are in the application state; so their application deadline has not arrived yet allowing students to apply to them.

## 3.2.2 Requirements mapping

## $[\mathbf{G1}]$ - Student can create an account

Requirements	Assumptions
[RA1] - The platform shall allow users to	[A1] - All users have a valid email.
register.	[A8] - The platform has a list of all affiliated
	universities.

## $[\mathbf{G2}]$ - Company can create an account

Requirements	Assumptions
[RA1] - The platform shall allow users to	[A1] - All users have a valid email.
register.	

## $[\mathbf{G3}]$ - Users can update their accounts

Requirements	Assumptions
[RA3] - The platform shall allow users to	[A2] - Students upload the correct file in the
update their existing account.	CV section of the account.

## $[\mathbf{G4}]$ - Companies can create internships

Requirements	Assumptions
[RI1] - The platform must allow companies	[A3] - Companies post correct information
to create internships.	about existing internships.

## $[\mathbf{G5}]$ - Students can view all available internships

Requirements	Assumptions
[RI2] - The platform must allow students to	None.
view all available internships.	
[RI3] - The platform must allow students to	
search between the available internships.	

## $[\mathbf{G6}]$ - Companies can create forms for students to fill

Requirements	Assumptions
[RF1] - The platform shall allow companies	[A4] - Companies create reasonable forms
to create custom forms.	before the applications deadline.
[RF2] - The platform shall allow companies	
to save created forms for later use in an in-	
ternship selection process.	

## ${\bf [G7]}$ - Recommendation system

Requirements	Assumptions
[RN1] - The platform shall notify students	[A5] - The recommendation system is reliable
when an internship suitable for them has been	enough.
posted.	

## $[\mathbf{G8}]$ - Students can apply for the internships

Requirements	Assumptions
[RI4] - The platform must allow students to	None.
apply for any available internship.	

## ${\bf [G9]}$ - Form evaluation

Requirements	Assumptions
[RN6] - The platform shall send companies	[A6] - Companies check all submitted forms
the list of candidates st the end of the appli-	and for each of them grade all questions.
cation deadline.	
[RF3] - The platform shall allow companies	
to send the candidates that passed the first	
screening the form for the second screening.	
[RF4] - The platform shall allow students to	
fill and submit the application form.	
[RF5] - The platform shall allow companies	
to evaluate a submitted form by grading each	
question.	

## ${\bf [G10]}$ - Ranking candidates

Requirements	Assumptions
[RN2] - The platform shall notify students	[A6] - Companies check all submitted forms
of the result of the first screening.	and for each of them grade all questions.
$[\mathbf{RN3}]$ - The platform shall notify students	
of the final result of the application.	

## $[\mathbf{G11}]$ - Users can provide feedbacks

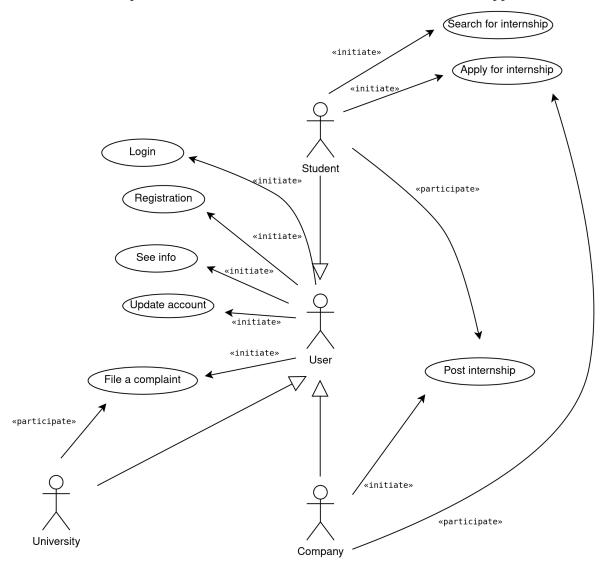
Requirements	Assumptions
[RN4] - The platform shall notify stu-	[A7] - Feedback and complaints provided by
dents/companies to fill a feedback form after	users are truthful and accurate.
the end of the internship.	
[RR1] - The platform shall allow students	
and companies to write a feedback at the end	
of an internship.	

[G12] - Complaints management

Requirements	Assumptions
[RI5] - The platform must allow stu-	[A7] - Feedback and complaints provided by
dents/companies involved in an internship to	users are truthful and accurate.
complain about the other party.	
[RN5] - The platform shall notify universities	
whenever a complaint is filed involving one of	
their students.	
[RR2] - The platform shall allow students	
and companies involved in an internship to	
write complaints regarding the other party.	
[RR3] - The platform shall allow universi-	
ties to read all complaints that involve their	
students.	

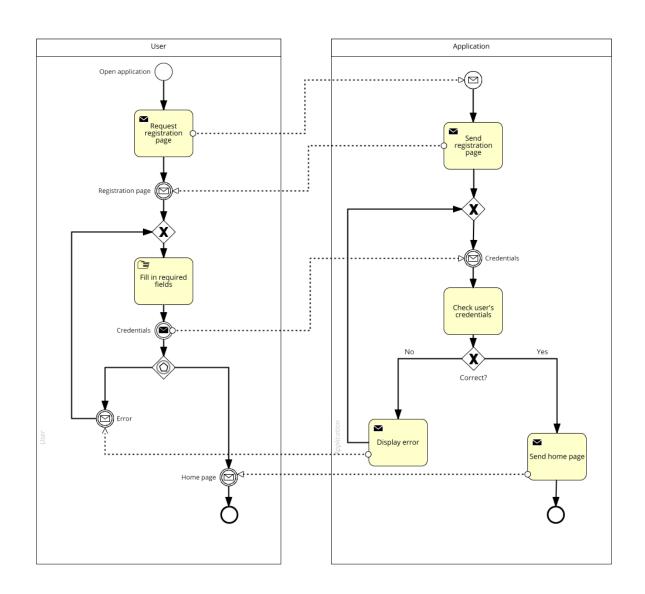
## 3.2.3 Use cases and diagrams

In this section are reported some of the most notable use cases for the S&C application.



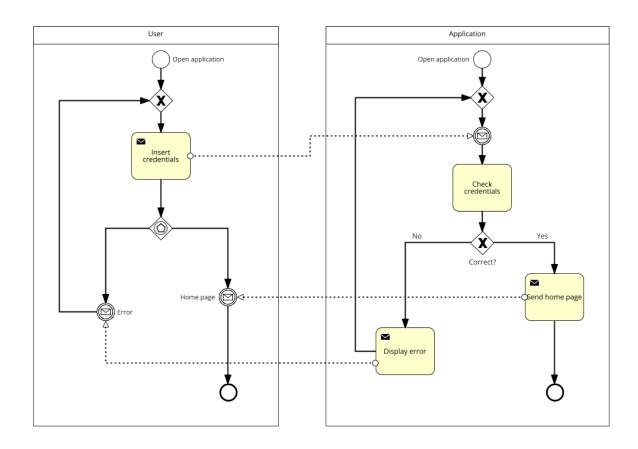
## [UC1]

Name	Register user
Actors	User
Entry conditions	User opens the platform without an account
Events flow	1. The user starts the registration process
	2. The system asks the user to choose if he/she is a student or
	a company and to provide: name, surname, username, email
	and password
	3. User fills in the text fields with the required information
	4. The system checks if email or username have been already
	used by another user to register
	5. System updates the database with the user's information
	and displays a message of confirmed registration
Exit conditions	User successfully registers on the platform
Exceptions	The user enters invalid credentials, such as non existent or
	already registered email



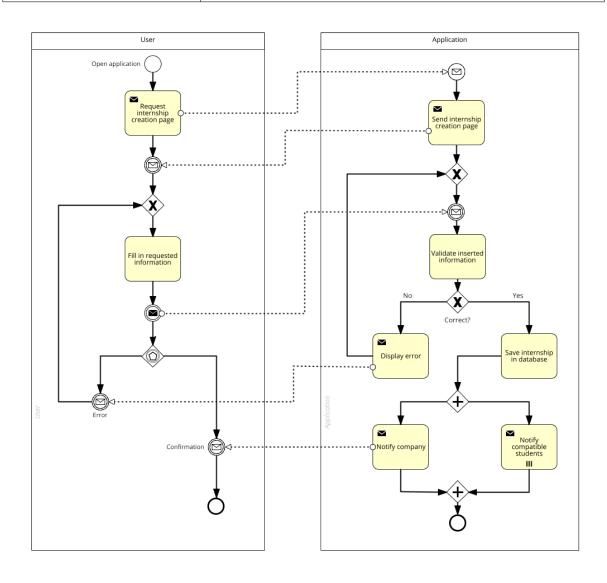
## [UC2]

Name	User login
Actors	User
Entry conditions	User opens the platform while having a registered account
Events flow	1. User inserts fills in the appropriate fields for the login
	with his credentials (username and password) and presses the
	"Login" button
	2. The system checks if the information inserted are correct
	3. The system displays the home page to the user
Exit conditions	The user is logged in the platform
Exceptions	When the user inserts the wrong combination of username
	and password and presses the "Login" button, the application
	displays an error message.



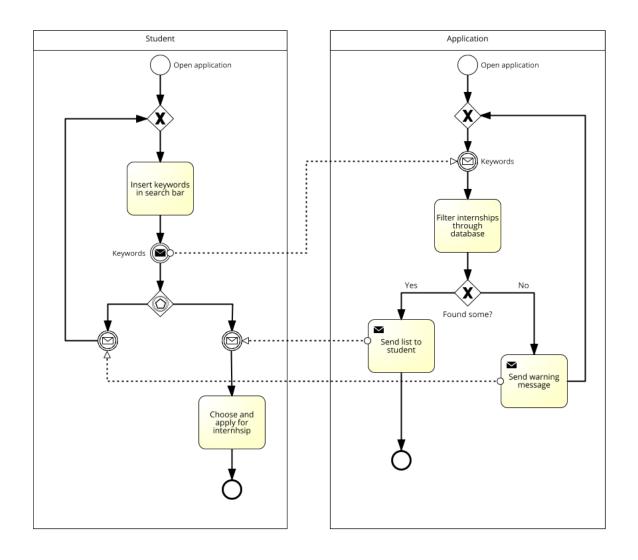
## [UC3]

Name	Internship creation
Actors	Company; Student (Notified)
Entry conditions	User is logged in a company account
Events flow	1. Company requests to create an internship post
	2. The system asks the company all the required information
	to create the post
	3. The company submits the requested information
	4. The system validates the information provided by the
	company
	5. The system adds the internship to its database and and
	notifies all compatible student
Exit conditions	The company successfully created an internship and the com-
	patible students received a notification from the system
Exceptions	When attempting to create the post if the company doesn't
	insert all the required information, the application displays an
	error message



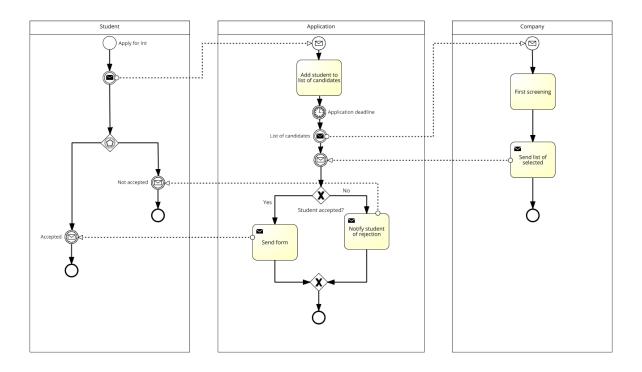
## [UC4]

Name	Student proactive search
Actors	Student
Entry conditions	- User is logged in with a student account
Events flow	1. The student insert some keywords in the search bar in the
	home page
	2. The system filters the internships that satisfy the keywords
	3. The student chooses an internship and applies for it
Exit conditions	The student successfully applies for an internship
Exceptions	If there are no suitable internships the system returns a warn-
	ing message



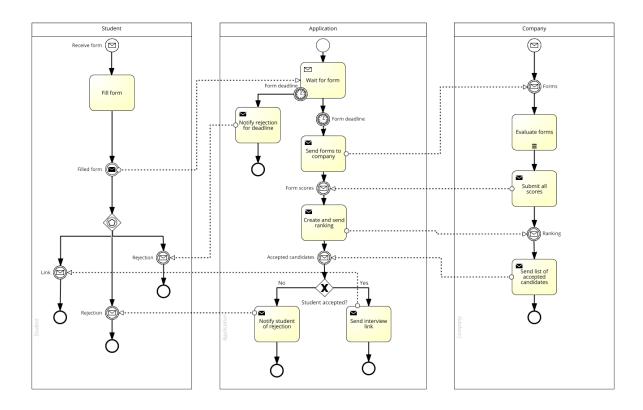
## [UC5]

Name	Selection process (part 1)
Actors	Company; Student
Entry conditions	A student has applied for an internship
Events flow	1. Student applies for an internship
	2. When the application deadline is reached, the company
	receives the list of all the candidates
	3. The company performs a first screening and sends to the
	remaining ones a form to fill in
Exit conditions	The student is selected during the first screening or rejected
Exceptions	None



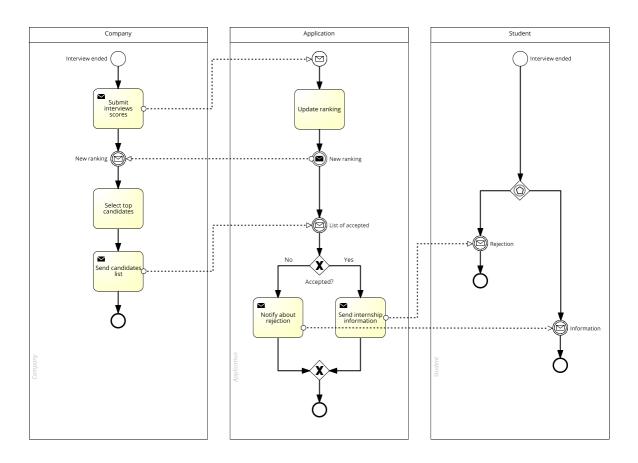
## [UC6]

Name	Selection process (part 2)
Actors	Company; Student
Entry conditions	The student applied for an internship
	The student has been selected during the first screening
Events flow	1. After receiving the form, the student fills it and submits it
	2. After the form deadline, the company evaluates all forms
	and submits the scores
	3. The system creates a ranking and sends it to the company
Exit conditions	The company receives the updated ranking
Exceptions	None



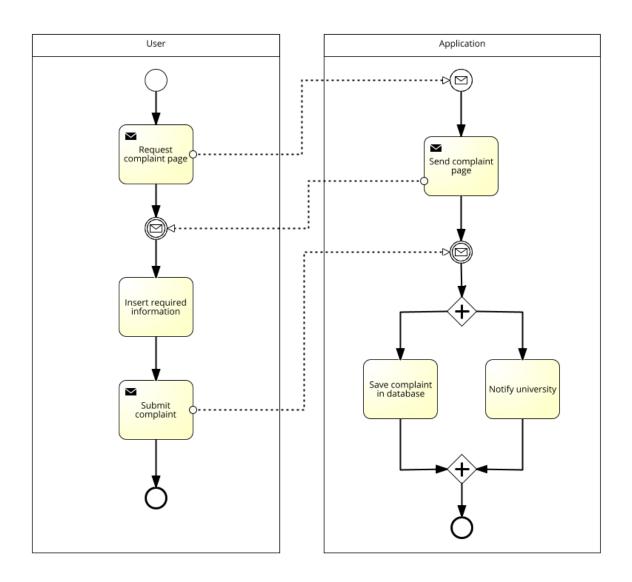
## [UC7]

Name	Selection process (part 3)
Actors	Company; Student
Entry conditions	The student applied for an internship
	The company received the updated ranking
Events flow	1. The company picks the top n candidates and sends the a
	link for the interview
	2. After the interviews, the ranking is updated and the top
	candidates are accepted for the internship
	3. The accepted candidates receive a notification with all the
	information needed for the internship
Exit conditions	The student has been either rejected or accepted
Exceptions	None



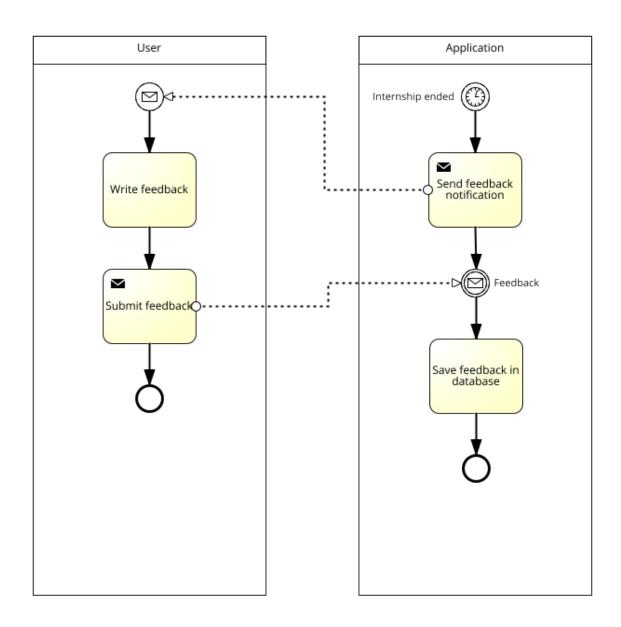
## [UC8]

Name	User complaint
Actors	User
Entry conditions	A student is participating in an internship
Events flow	1. The user requests for the complaint page
	2. The system sends the page back
	3. The user writes the complaint and submits it
	4. The university is notified of the complaint
Exit conditions	The complaint is saved in the system databases
Exceptions	None



## [UC9]

Name	User provide feedback
Actors	User
Entry conditions	The internship was concluded
Events flow	1. When an internship is concluded, the users involved in
	the internship receive a notification to remind them to give a
	feedback
	2. The user writes a feedback and submits it
	3. The feedback is saved int the system database
Exit conditions	The feedback is saved in the system databases
Exceptions	None



- 3.2.4 Traceability matrix
- 3.3 Performance requirements
- 3.4 Design constraints
- 3.4.1 Standards compliance
- 3.4.2 Hardware limitations
- 3.4.3 Any other constraints
- 3.5 Software system attributes
- 3.5.1 Reliability
- 3.5.2 Availability
- 3.5.3 Security
- 3.5.4 Maintainability
- 3.5.5 Portability
- 4 Formal analysis using Alloy
- 4.1 Static model
- 4.2 Dynamic model
- 5 Effort spent

## • Abdallah Alkhetiar

Chapter	Effort
1	10 h
2	0 h
3	0 h
4	0 h

## • Daniel Bonardi

Chapter	Effort
1	10 h
2	0 h
3	0 h
4	0 h

## 6 References

Wikipedia.