Job Application Training

User Requirements Specifications

Requirements Analysis - IT Factory

Team DDP2

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INTRODUCTION

As the DDP2 group, in this document we will briefly discuss our assignment description which will include the background information regarding our task and our objectives for this project. In the proceeding portion we will be sharing a use case diagram which will be followed by the use case descriptions of the aforementioned diagram.

1 ASSIGNMENT DESCRIPTION

This section describes the administration process for which the web application will be developed and explains the objectives of the new system and what benefits it will offer and to whom.

1.1 Background information

The 'Job application training' is provided for graduating IT students at Thomas More Hogeschool by the coordinators. The third year students get the chance to participate in a mock job interview with a designated recruiter from participating IT companies.

Currently, this job application training is coordinated by 2 ITF lecturers using Word and Excel documents, email messages and multiple other platforms.

This approach of maintaining the information regarding bookings and appointments with the use of many different channels and making it available on various platforms by the coordinators is very labour-intensive. The coordinators have to keep track of this information and make sure it is up-to-date and accurate by continuously communicating with the parties involved (student and company), which can be confusing and lead to miscommunication and delays.

1.2 Objectives and target groups

The main goal of the requested web application is to simplify the administration process, and to allow the coordinator to easily manage the booking and appointment information about the involved parties. This will result in making the coordinators' job less labour-intensive.

More specifically, the parties involved will experience the following benefits from this new system:

- Coordinators will spend less time managing student accounts, communicating with the students and companies, and performing labour-intensive tasks. Booking interviews, managing appointments, and providing feedback will be managed easily.

- Companies will be able to easily share and update information about themselves.

- Students will be able to easily view the participating companies, and more efficiently schedule interviews. Information on scheduled interviews will be more clearly available to them, reducing the risk of forgotten and overlapping interviews. They should still have the option to cancel or reschedule an interview before a deadline.

2 REQUIREMENTS ANALYSIS

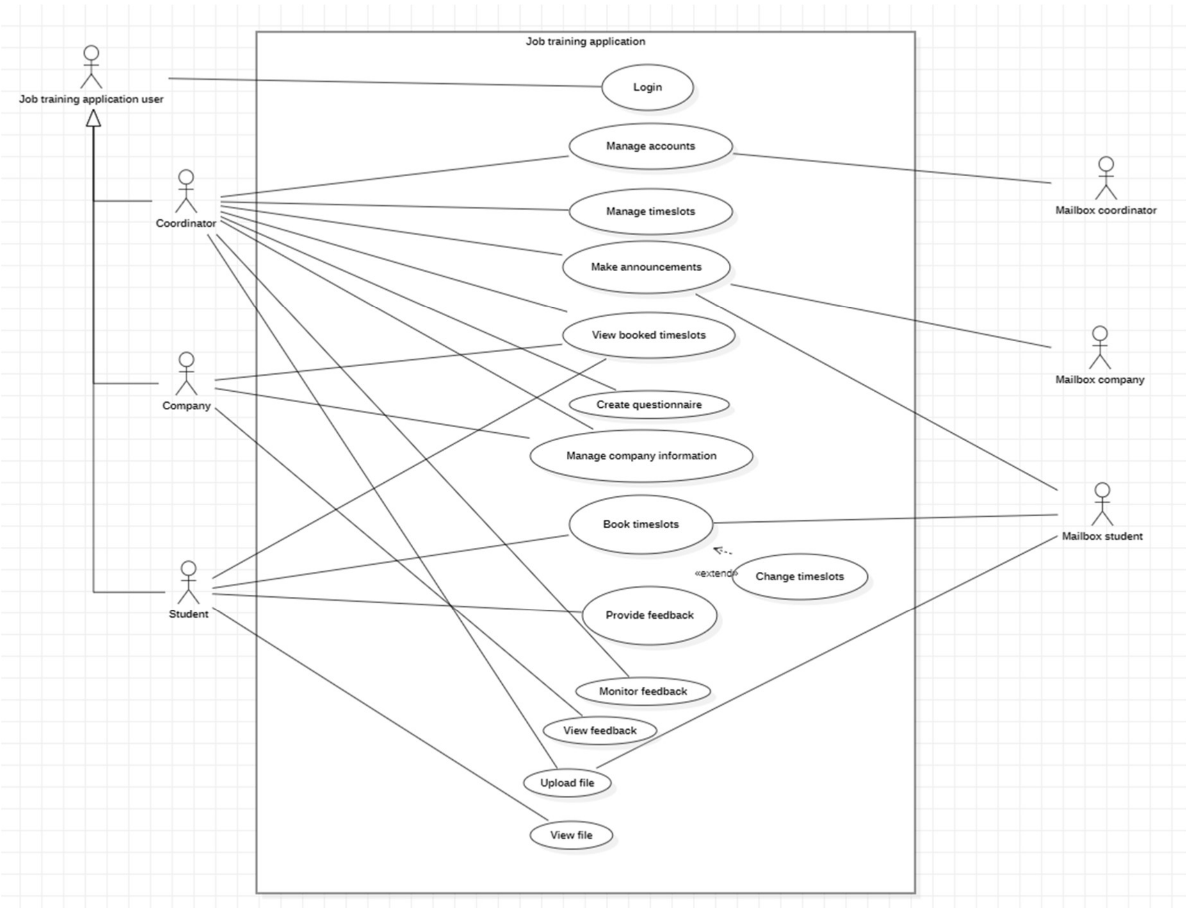
This section describes the functionalities of the web application which will be developed, and explains the different use cases of the new system.

2.1 Functional Requirements

Here we are gonna describe all of our functional requirements.

2.1.1 Use Case Diagram

The use case diagram below gives an overview of what actors (active an passive) and what use cases are part of the application.



2.1.2 Use Case Descriptions with prototypes

2.1.2.1 Login

Functionality: As a job training application user, I can login to an account which has been assigned to me.

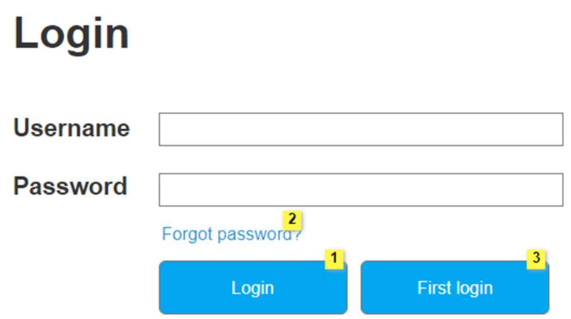
Normal flow: The system displays a login screen asking the actor for their email address and password. The actor fills in the required fields and proceeds. The system verifies the existence and password of the information entered by the actor. The system displays a screen notifying the actor that they have been successfully logged in.

Alternatives:

- First login: If an actor logs in for the first time, the system displays a notification that the actor must change their password before proceeding. The actors is redirected to a new screen where they are prompted to enter a new password.
- Incorrect login information: If an actor does not enter the correct login information, the system displays a warning that the login failed.
- Forgotten password: If an actor forgets their password, the system provides the option to reset the password of an account through a link sent to the actor's email.

Screens:

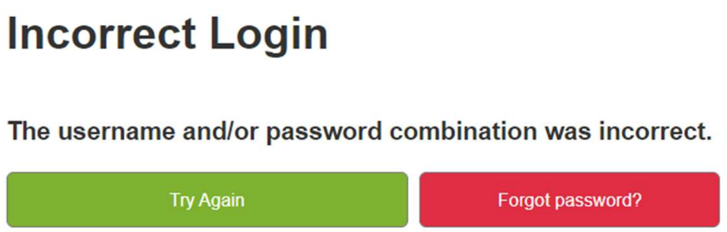
1.0 Login



Action	Explanation
1	Normal flow: When the actor clicks on the login button and the username and password is correct, the system displays a successful login notification.
2	Alternative: If an actor forgets their password, the system provides the option to reset the password of an account through a link sent to the actor's email.
3	Alternative: If an actor logs in for the first time, the system displays a notification that the actor must change their password before proceeding.
Login	Redirects the actor to his/her own homepage (Screen: DashboardCoordinator, or DashboardStudent, or DashboardCompany).

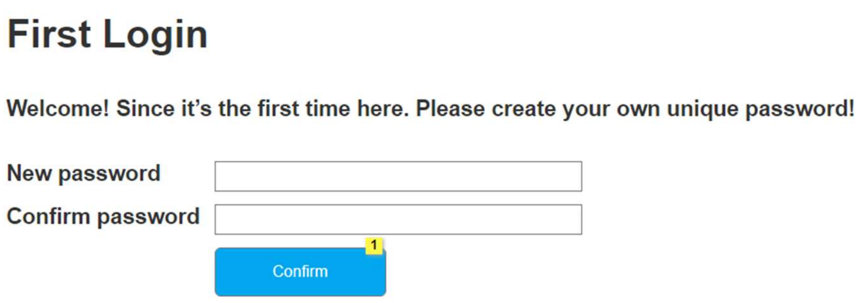
Action	Explanation
First Login	Redirects the actor to screen “1.1 Alternative: First Login” where they are prompted to enter a new password.

Pop up (alternative: incorrect login):



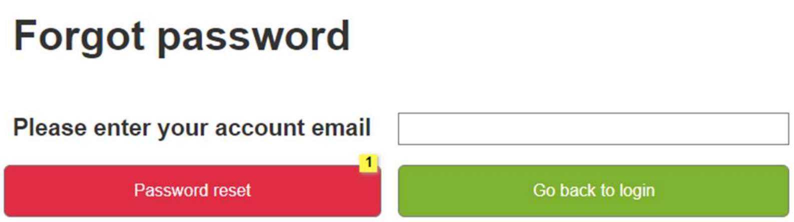
Action	Explanation
Try again	Redirects the actor to screen “1.0 Login”.
Forgot password?	Redirects the actor to screen “1.3 Alternative: Forgot Password”

1.1 Alternative: First Login



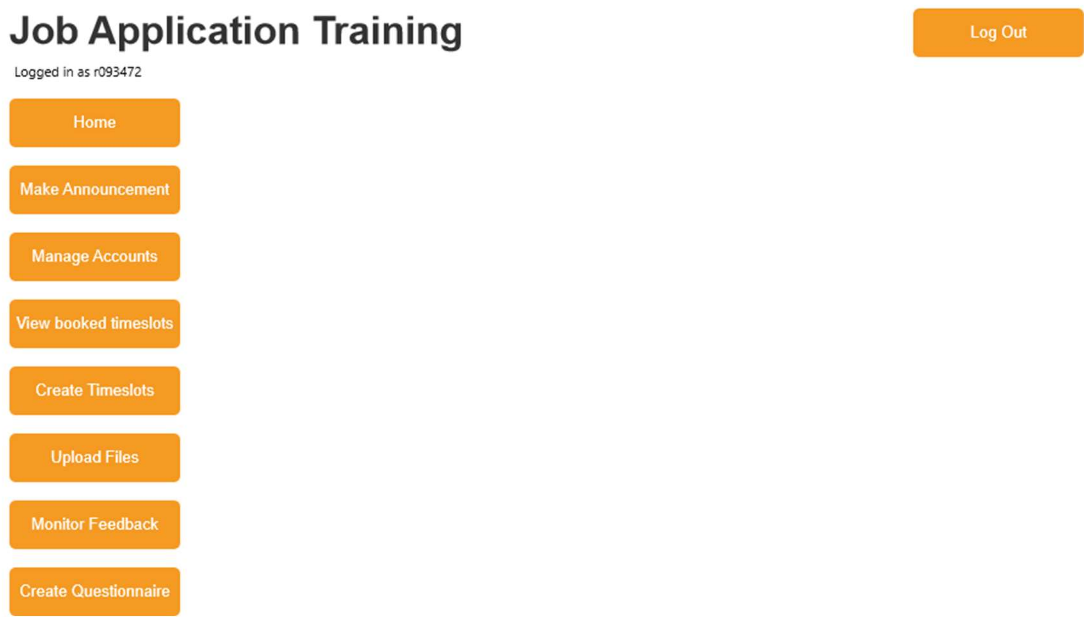
Action	Explanation
1	The new password is set for the actor’s account.
Confirm	Redirects the actor to his/her own homepage (Screen: DashboardCoordinator, or DashboardStudent, or DashboardCompany).

1.2 Alternative: Forgot Password



Action	Explanation
1	This will send the actor a link to the actor’s email so they can reset their password.

Navigation Menu Coordinator

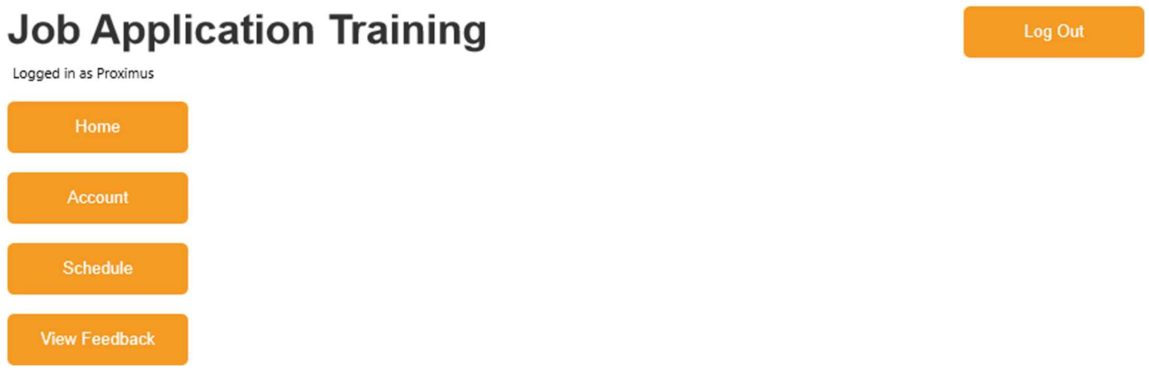


Action	Explanation
Home	To screen DashboardCoordinator
Manage Accounts	To screen 2.0 Manage accounts
Make Announcements	To screen 4.0 Make announcements
View Booked Timeslots	To screen 5.1 View booked timeslots - coordinator
Monitor Feedback	To screen 10 Monitor Feedback
Upload Files	To screen 12.1 Files
Create Timeslots	To screen 3.0 Manage Timeslots
Create Questionnaire	To screen 6.1 Questionnaire – create questionnaire
Logout	To screen 1.0 Login

DashboardCoordinator

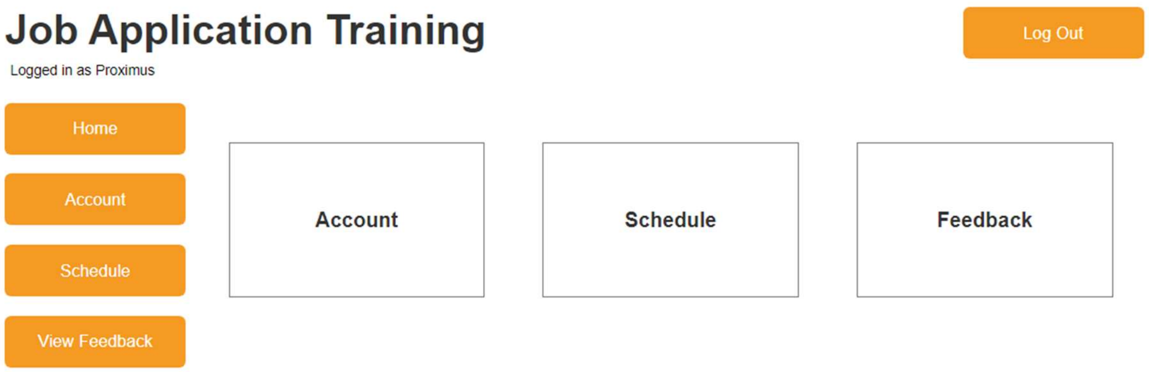
Action	Explanation
Manage Accounts	To screen 2.0 Manage accounts
Make Announcements	To screen 4.0 Make announcements
View Booked Timeslots	To screen 5.1 View booked timeslots - coordinator
Feedback	To screen 10 Monitor Feedback
Files	To screen 12.1 Files
Create Timeslots	To screen 3.0 Manage Timeslots
Create Questionnaire	To screen 6.1 – create questionnaire

Navigation Menu Company



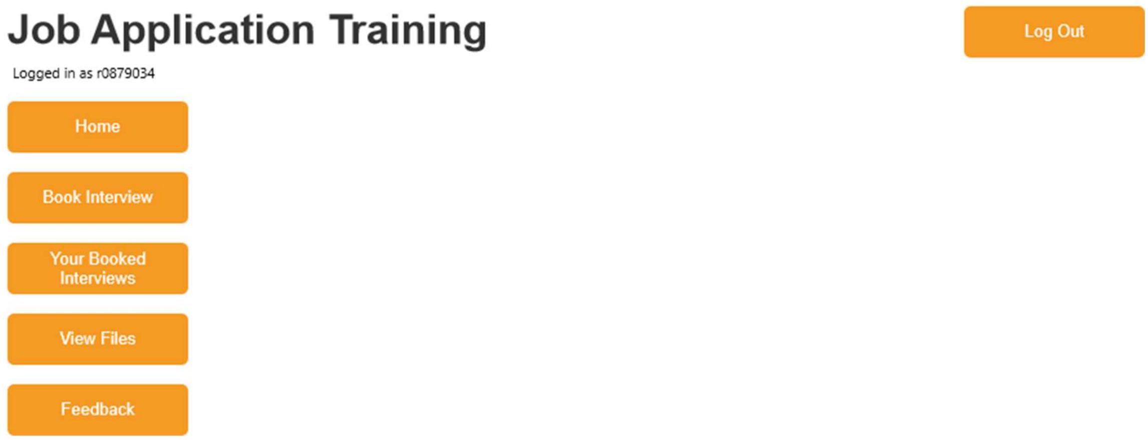
Action	Explanation
Home	To screen DashboardCompany
Account	To screen 7.0 Manage company information - company
Schedule	To screen 5.2 View booked timeslots - company
View Feedback	To screen 11 View Feedback - company
Logout	To screen 1.0 Login

DashboardCompany



Action	Explanation
Account	To screen 7.0 Manage company information - company
Schedule	To screen 5.2 View booked timeslots - company
View Feedback	To screen 11 View Feedback - company

Navigation Menu Student



Action	Explanation
Home	To screen DashboardStudent
Book Interview	To screen 8.0 Book timeslot
View Files	To screen 5.0 View booked timeslots - student
Feedback	To screen 9.0 Questionnaire – provide feedback
Your Booked Interviews	To screen 13.0 View files - student
Logout	To screen 1.0 Login

DashboardStudent

Action	Explanation
Book Interview	To screen 8.0 Book timeslot
Files	To screen 5.0 View booked timeslots - student
Feedback	To screen 9.0 Questionnaire – provide feedback
Your Booked Interviews	To screen 13.0 View files - student

2.1.2.2 Manage accounts

Functionality: As a coordinator, I can manage accounts.

Precondition: The coordinator is logged in.

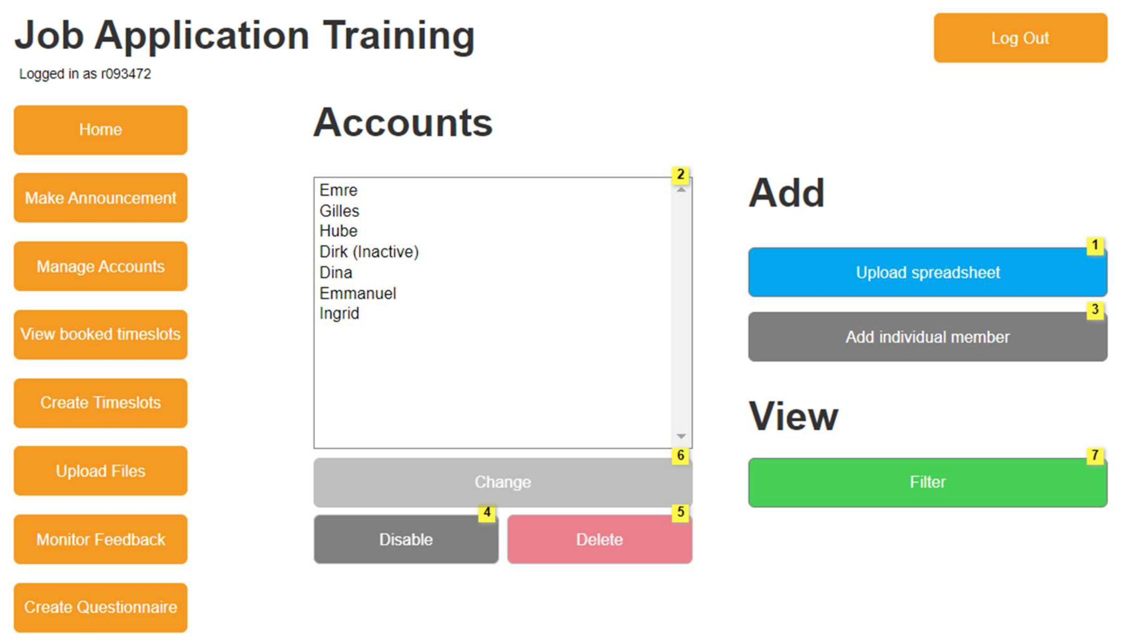
Normal flow: The actor uploads a spreadsheet with the account details for each student and company. The system shows a list of the created accounts which are set to active. Created student accounts are set to inactive by the system after 1 year. The system forwards the account details(username and temporary password) to each user via an email using an external mail system.

Alternatives:

- Individual new member: If a new student or company is to be added to the system, the actor enters the account details manually. The system adds the new member to the list.
- Disable account: If an account needs disabling, the actor can set their status to inactive manually. The system flags the account as inactive in the list and restricts the account’s access to the system.
- Delete account: If an account needs to be deleted, the actor can delete the account manually. The system removes the account from the database completely.
- View account information: The actor has the option to view both active and inactive account information regarding their personal information (name, email, phone number, etc.) and interview process information (booked timeslot, submitted feedback, etc.) in a (yes/no) format. The actor chooses a year to filter out the results by.
- Change account information: The actor can change the contact information (email, phone numebr, address, etc.) of all accounts after they have been created.

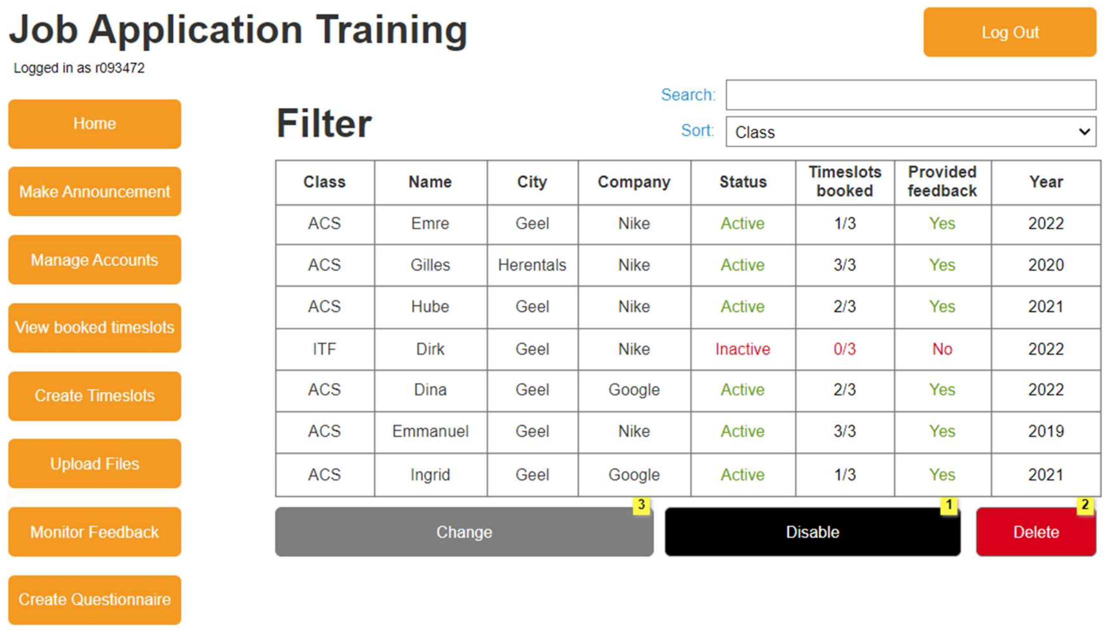
Screens:

2.0 Manage accounts



Action	Explanation
1	Here the actor can upload a spreadsheet with student accounts. The system automatically will create those accounts
2	The system shows a list of the created accounts which are set to active. Created student accounts are deactivated by the system after 1 year and their information is archived. The system forwards the account details to each user via an email using an external mail system.
3	If a new student or company is to be added to the system, the actor enters the account details manually. The system adds the new member to the list.
4	If an account needs disabling, the actor can set their status to inactive manually. The system flags the account as inactive in the list and restricts the account's access to the system.
5	If an account needs to be deleted, the actor can delete the account manually. The system removes the account from the database completely.
6	The actor can change the contact information (email, phone number, address, etc.) of the selected account that has been already created.
7	The actor has the option to view both active and inactive account information regarding their personal information (name, email, phone number, etc.) and appointments information (timeslot, company name, student name etc.).

2.1 View account information



Action	Explanation
1	If an account needs disabling, the actor can set their status to inactive manually. The system flags the account as inactive in the list and restricts the account's access to the system.
2	If an account needs to be deleted, the actor can delete the account manually. The system removes the account from the database completely.
3	The actor can change the contact information (email, phone number, address, etc.) of the selected account that have been already created.

2.1.2.3 Manage Timeslots

Functionality: As a coordinator, I can manage timeslots.

Precondition: The coordinator is logged in.

Normal flow: The system asks the actor to input a date, a start time for the interviews, an end time for the interviews, a duration for each timeslot, and a deadline for booking the timeslots. The actor inputs all of that information and generates the timeslot template. The system creates the timeslots.

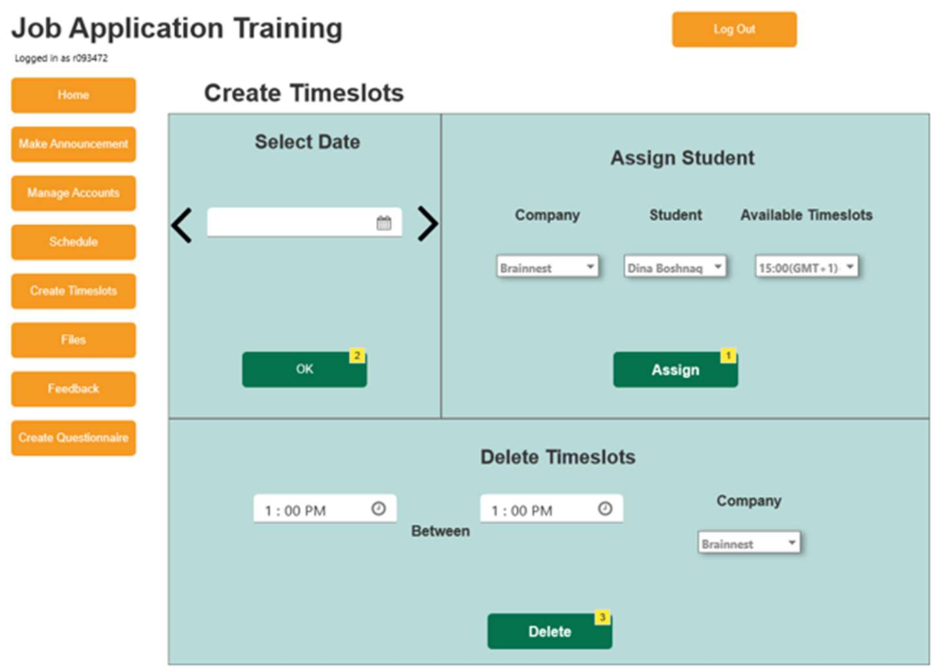
Alternative flow:

- <u>Edit timeslot template:</u> In case the actor needs to change the day and date for the timeslots, the actor can change the date. The system updates booked and unbooked timeslots to reflect the changes, and notifies the students who booked timeslots about the changes via an external mail system.

- Deadline for timeslots is reached: Once the deadline for booking timeslots with companies is reached, the system sends a list of the bookings to the corresponding company.
- Manually assign student to timeslot: If the deadline passed, the actor can manually assign a student to a timeslot. The system assigns the timeslot and sends a notification to the corresponding company.

Screens:

3.0 Create and Delete Timeslots



Action	Explanation
1	If the deadline has passed, the coordinator can manually assign a student to a timeslot. The system assigns the timeslot and sends a notification to the corresponding company.
2	The coordinator can create timeslots for each company depending on the number of recruiters per company. When created, all other fields are set to disabled apart from "Date" in case the date needs to be updated.
3	The coordinator can delete all timeslots within a period. When deleted, all timeslots within the set period are deleted from the student's bookings.

2.1.2.4 Make announcements

Functionality: As a coordinator, I can make an announcement.

Precondition: The coordinator is logged in.

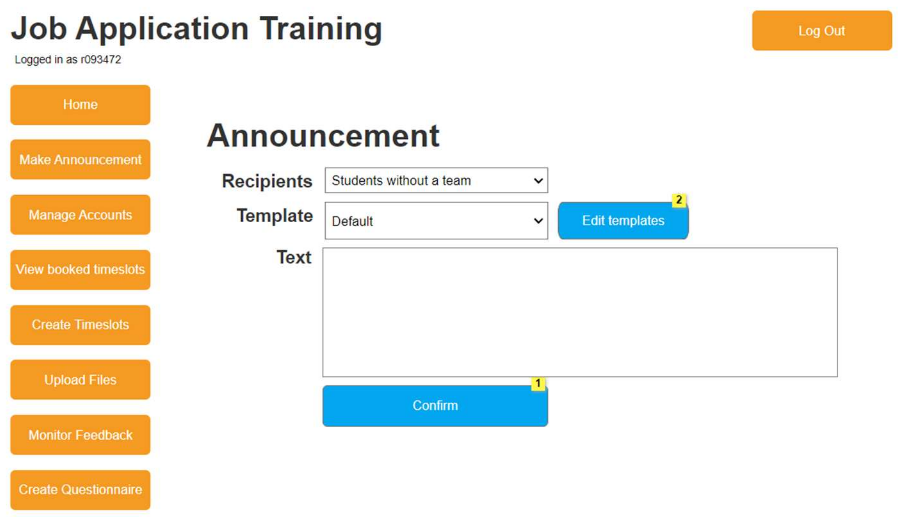
Normal flow: The actor creates an announcement on the system. The system asks the actor to select the recepient(s) and also adds the ability to filter recepients. Once posted, the system shares this announcement with the selected recepient(s) as an email via an external mailing system.

Alternative flow:

- Create and edit announcement templates: The actor can add/edit/remove templates with pre-written content.

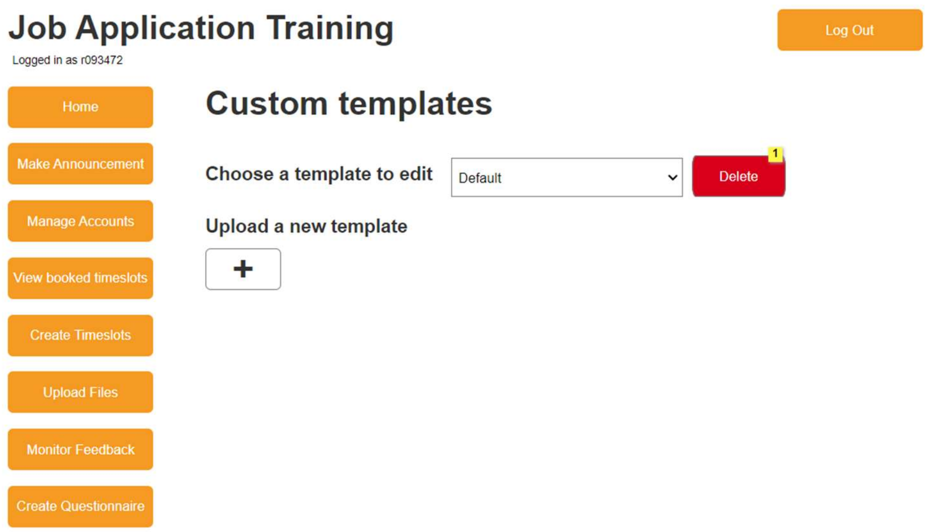
Screens:

4.0 Make announcement



Action	Explanation
1	The system will sent the announcement to the target audience
2	Here the actor can edit his templates

4.1 Use Announcement template



Action	Explanation
1	Here the actor can edit his templates

2.1.2.5 View booked timeslots

Functionality: As a company/coordinator/student, I can view the booked timeslots.

Precondition: The company/coordinator/student is logged in.

Normal flow: After the deadline, the actor can view a list containing all the booked timeslots pertaining to themselves.

Alternative flow:

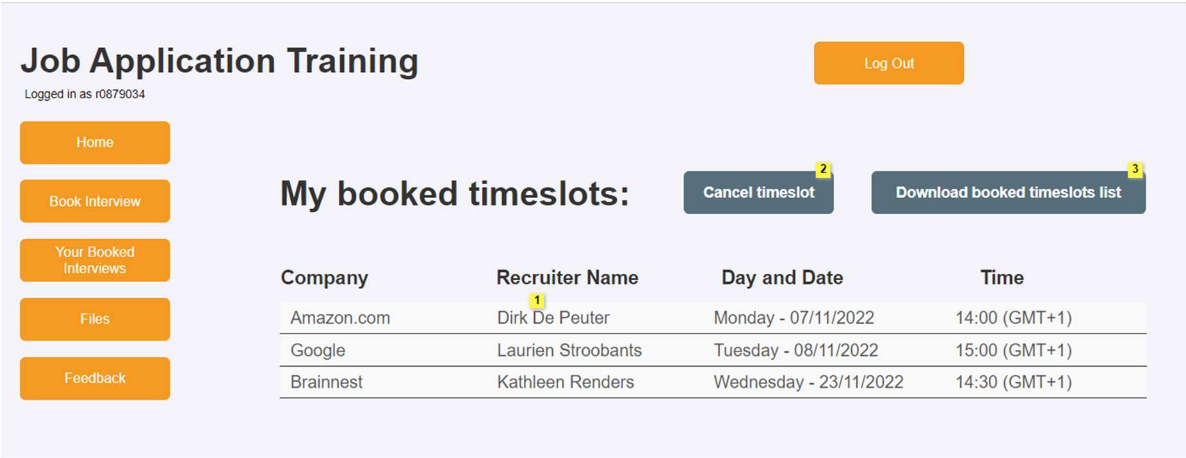
- <u>Cancel timeslot:</u> Only the student and coordinator can cancel a timeslot. The system displays an option to cancel a booking for each timelsot. The actor chooses the timeslot to cancel. The system cancels the timeslot and removes it from the list of timeslots. The system makes the timeslot available again.

- <u>Download timelsots:</u> The actor can download the list of all booked timeslots.

<u>Note:</u> Cancelling a timeslot for a student is only allowed before the deadline.

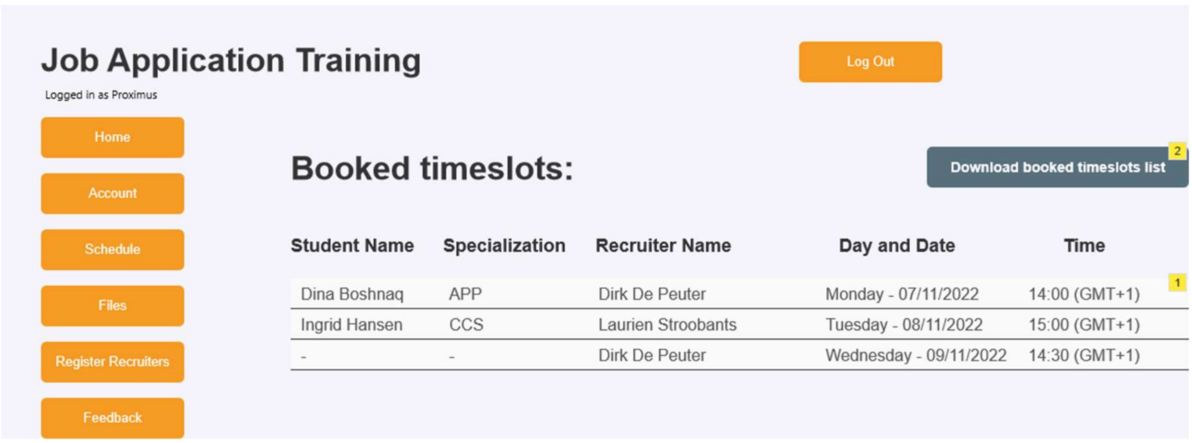
Screens:

5.0 View booked timeslots – student



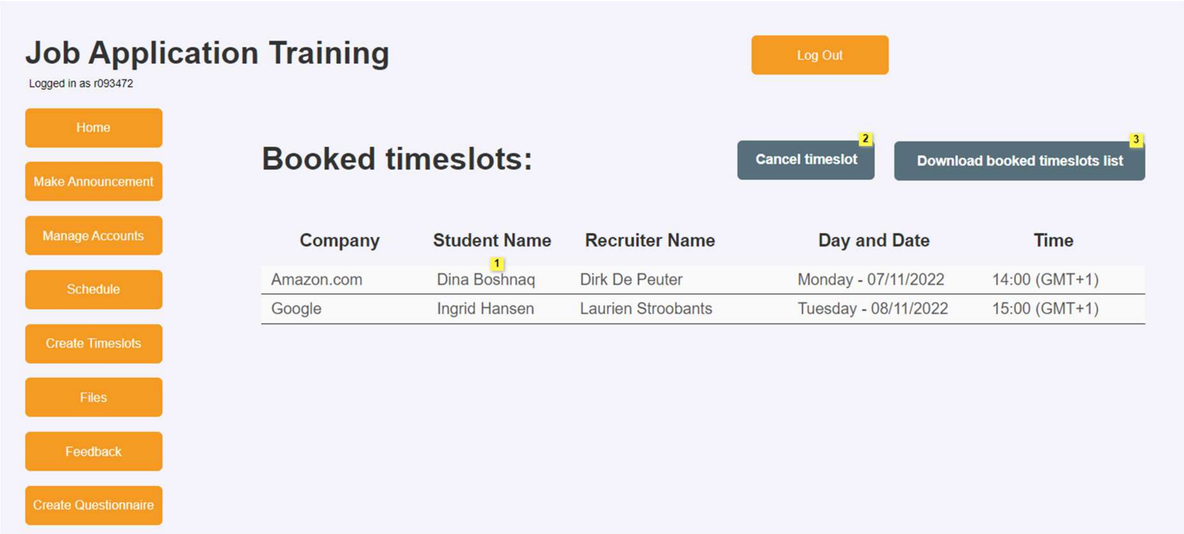
Action	Explanation
1	This is a list of the booked timeslots for a student.
2	A student can cancel a booking. The system asks in a pop-up for a confirmation to cancel the chosen booking. Cancelling timeslots for students is disabled by the system after the deadline. If the student wants to cancel any timeslots they have to contact the coordinator externally.
3	A student can download a list of all booked timeslots.

5.1 View booked timeslots – company



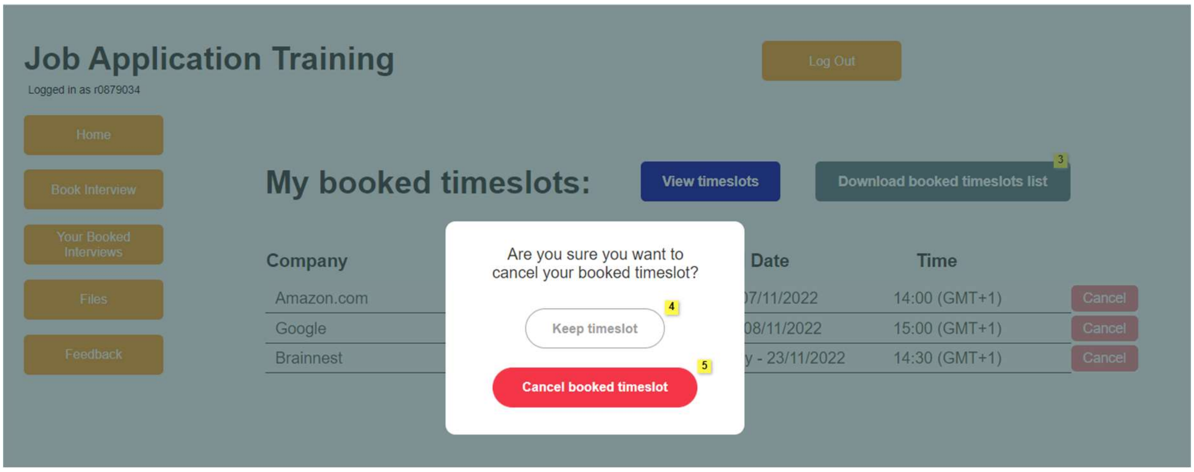
Action	Explanation
1	This list contains all the booked timeslots with a company. The system also displays un-booked timeslots.
2	A company has the option to download a list of all timeslot bookings made by students with them.

5.2 View booked timeslots – coordinator



Action	Explanation
1	This list contains all the booked timeslots by all students with all companies.
2	A coordinator can cancel a booking. The system asks in a pop-up for a confirmation to cancel the chosen booking. Coordinators can cancel timeslots before or after the deadline.
3	A coordinator can download a list of all booked timeslots.

Common pop-up for 5.0 and 5.2 screens:



Action	Explanation
4	The chosen timeslot is not cancelled. The system keeps the list of timeslots the same.
5	The chosen timeslot is cancelled and removed from the list. The system makes the cancelled timeslot available again in the "8.0 Book timeslot" UC screen.

2.1.2.6 Create questionnaire

Functionality: As a coordinator, I can manage the feedback questionnaire.

Precondition: The Coordinator is logged in.

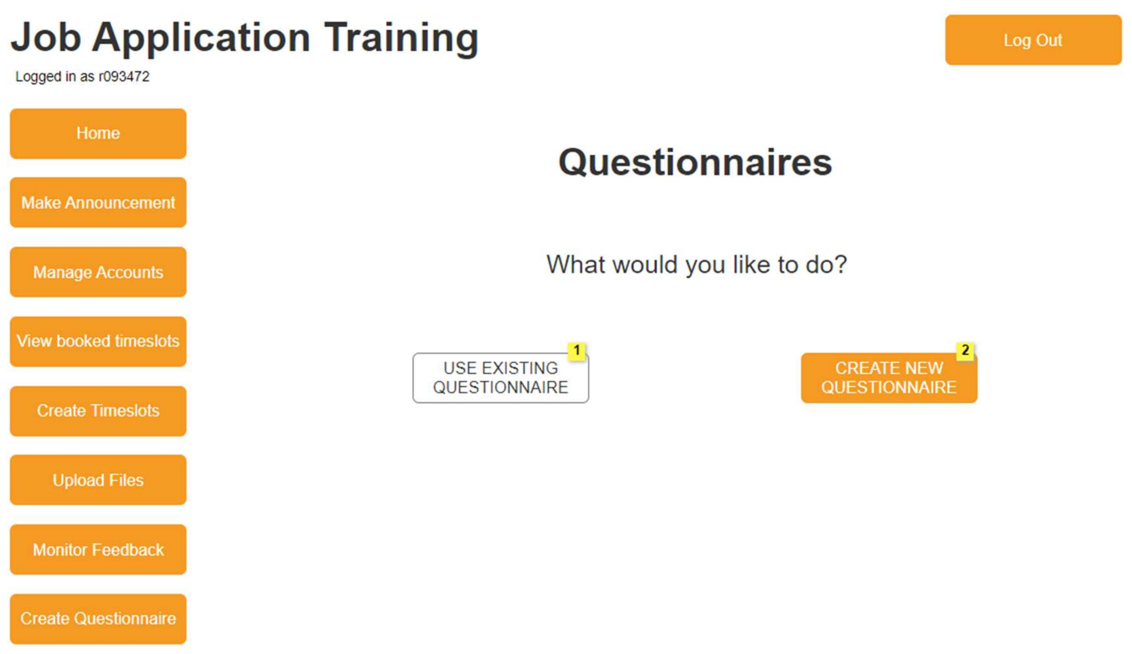
Normal flow: The actor can create a questionnaire containing questions which can be answered using the Likert Scale (strongly disagree, somewhat disagree, neither agree or disagree, somewhat agree, strongly agree) or a comment field. The system will display the questionnaire the day after the date of the interviews determined by the actor.

Alternative flow:

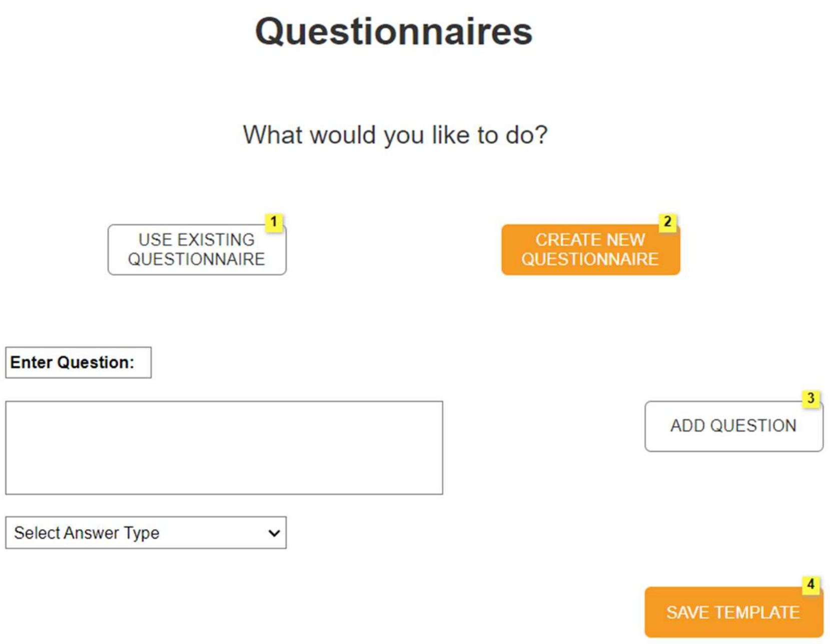
- Editing the questionnaire: The actor can edit the questions in the questionnaire.

Screens:

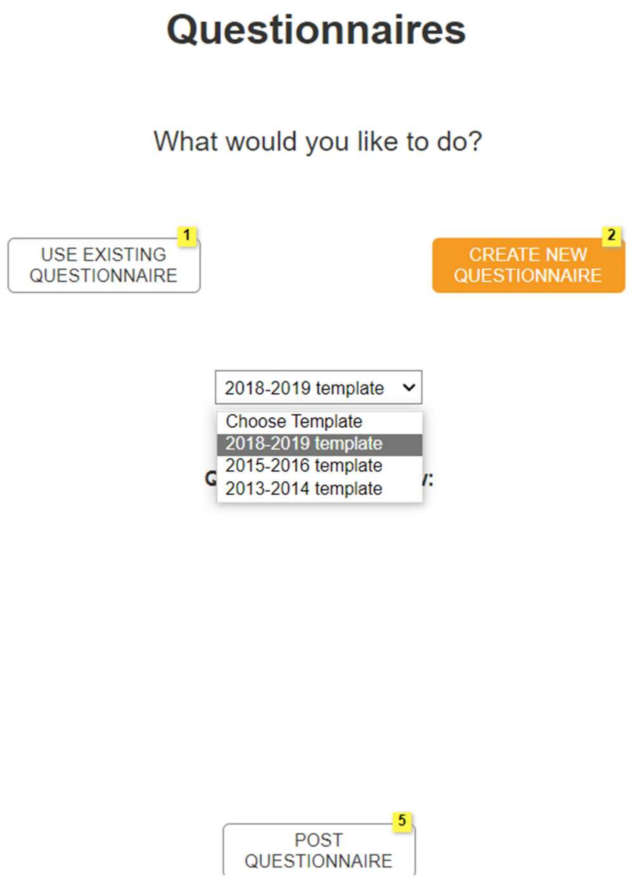
6.0 Questionnaire – Create questionnaire



Action	Explanation
1	Display a list of previously used questionnaires which can be selected to edit/share.
2	Create a new questionnaire template to edit/share.



Action	Explanation
3	Add a question to the questionnaire.
4	Save the current template for use in the future.



Action	Explanation
5	Share the questionnaire with all students who took part in the interview process.

2.1.2.7 Manage company information

Functionality: As a company/coordinator, I can manage my information.

Precondition: The company/coordinator is logged in.

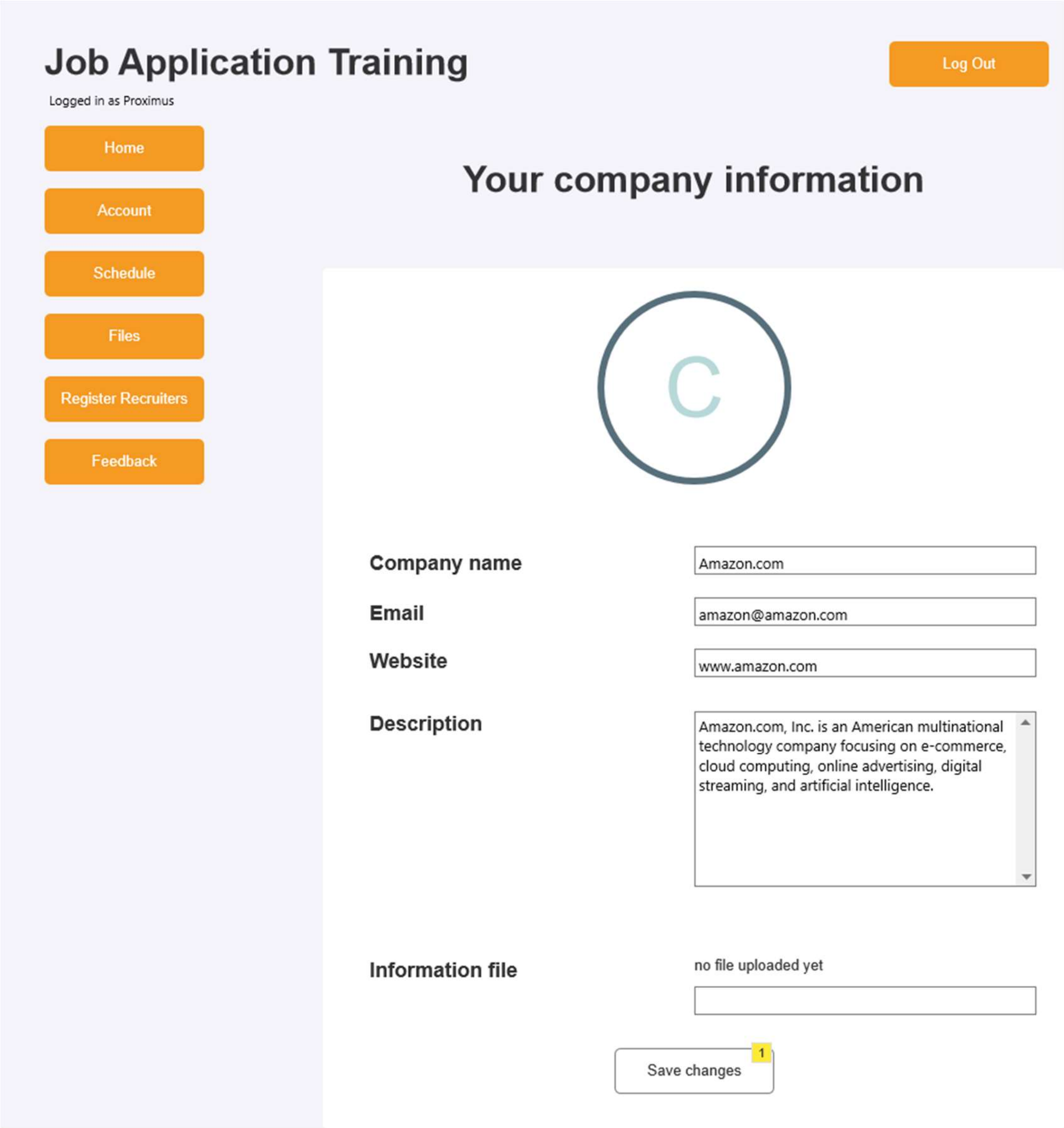
Normal flow: The system redirectes the actor to their profile page. The actor enters information regarding their company (name, description, website, number and names of recruiters). The actor has the option to upload an introduction file about themselves and job requirements for applicants.

Alternatives:

- No introduction file uploaded: The system displays a prompt stating that the actor has not uploaded an introductory file and asks the actor to either upload an introduction file on their profile page or to choose to proceed without uploading a file.
- Edit company information: The actor has the option to change the company information.

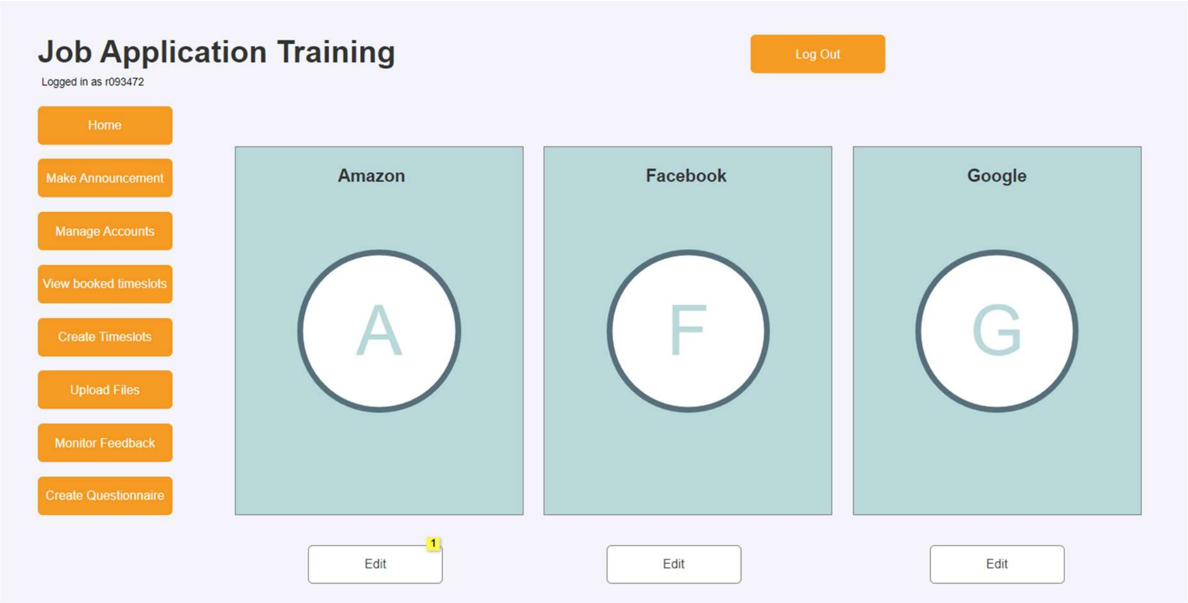
Screens:

7.0 Manage company information - company



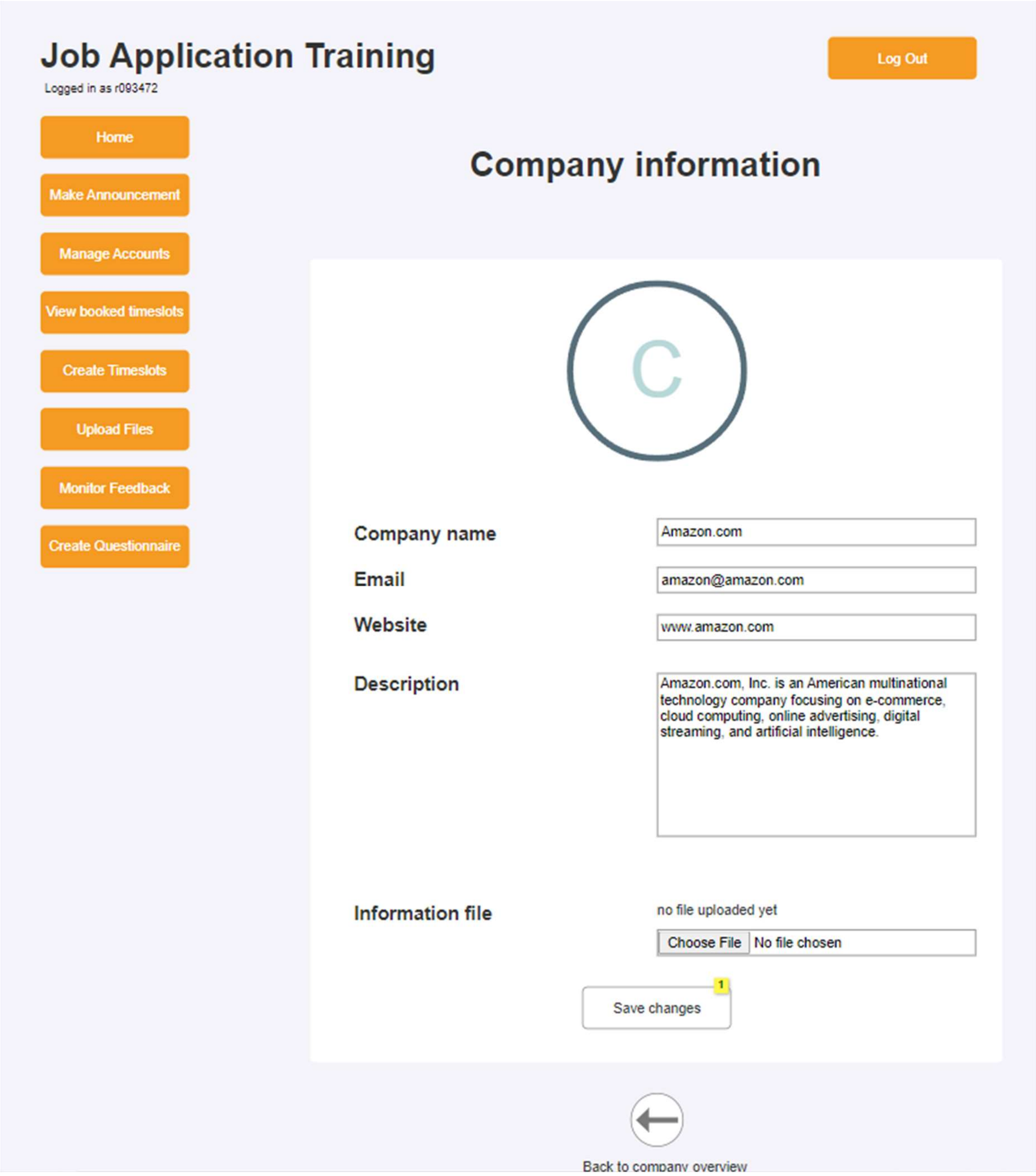
Action	Explanation
1	Save changes made to the company information.

7.1 Manage company information – coordinator – overview companies



Action	Explanation
1	Edit company information.

7.2 Manage company information – coordinator – edit company



Action	Explanation
1	Save changes made to the company information.
Back to company overview	Redirects the actor to screen "7.1 Manage company information – coordinator – overview companies".

2.1.2.8 Book timeslot

Functionality: As a student, I can book a timeslot.

Precondition: The student is logged in.

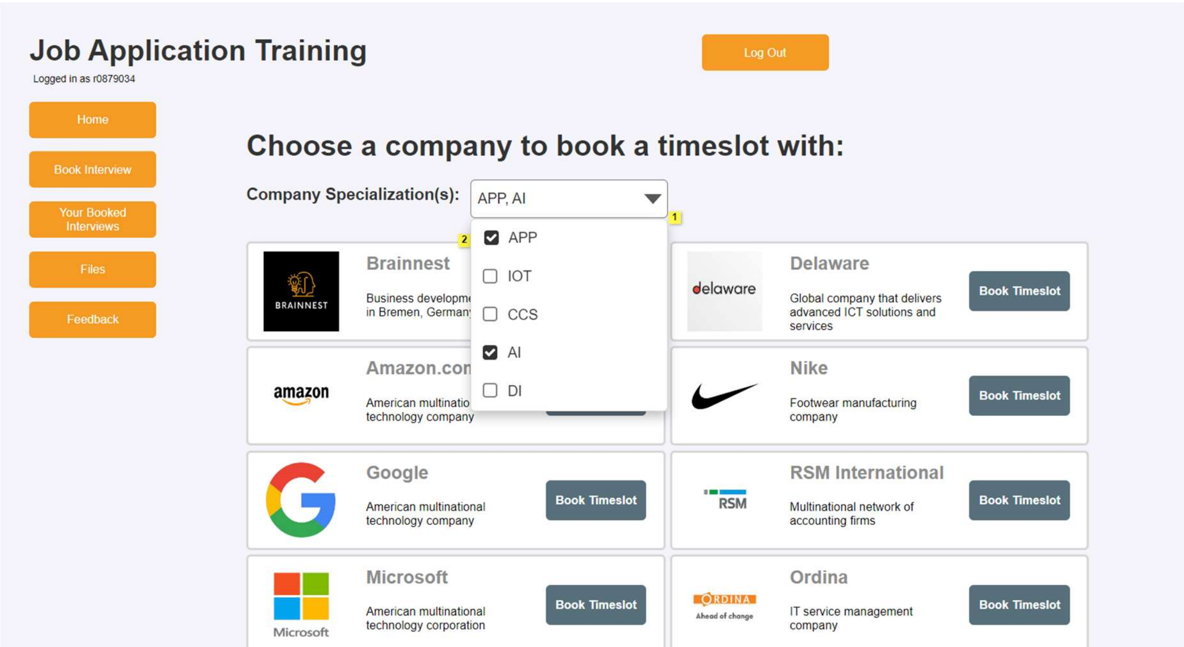
Normal Flow: The system displays a list of available (unblocked) timeslots for each company, along with the associated recruiter's name and specialization. The actor selects a timeslot to book. The system confirms the booking and sends a confirmation e-mail to the actor's email. The booked timeslot is set as blocked (invisible) for the rest of the students.

Alternatives:

- Filter companies by specialization: If the actor wants to filter the companies based on specialization, the actor can select the filter option. The system displays a list of all specializations. The actor chooses their desired specialization(s). The system shows the timeslots pertaining to that specified specialization.
- Deadline passed: If the dealine for booking timeslots passed, the system disables booking timeslots for students. The system displays a list of all still available timeslots in an uninteractive list.

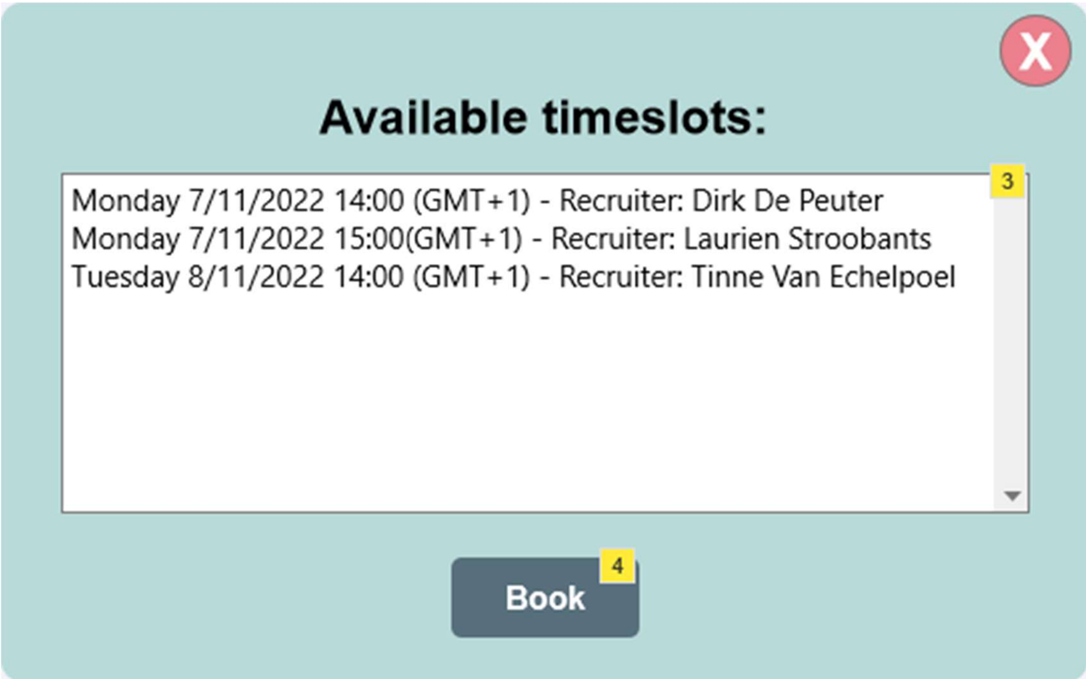
Screens:

8.0 Book timeslot



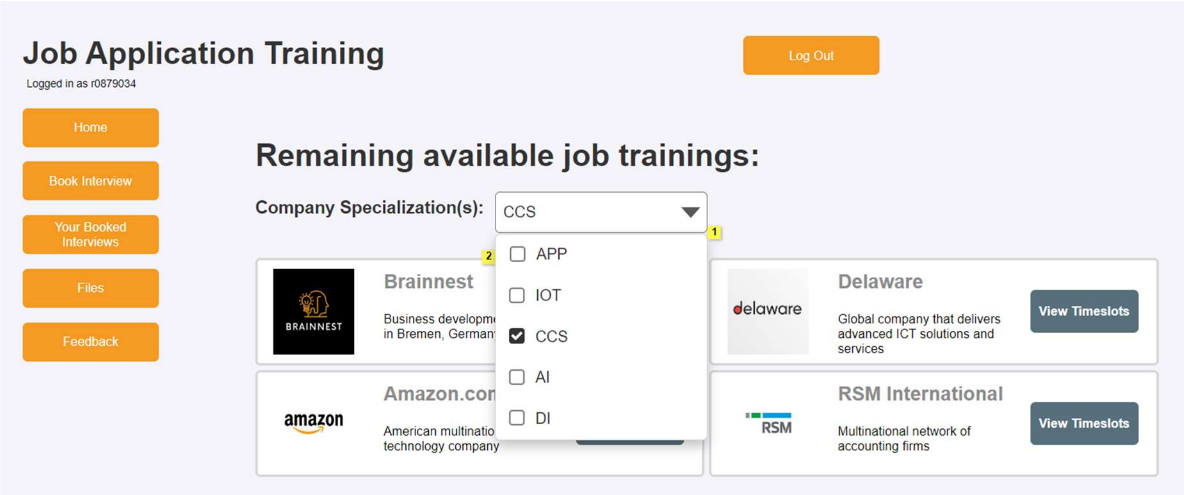
Action	Explanation
1	A student can filter the companies based on their specialization. When applying a filter or more, the system only displays the companies with job training opportunities in the selected field(s).
2	A list of all the companies participating in the job trainings for the year is displayed. A student chooses a company to book a timeslot with and a list of all the available timeslots for that company is displayed.
Book Timeslot	Navigates to a pop up where the student can choose a timeslot with the chosen company.

8.0 Book timeslot (pop-up)



Action	Explanation
3	This list contains all the available timeslots for the chosen company. It includes info about the day, date, time, and conducting recruiter of that interview.
4	The system confirms the booking and sends a confirmation e-mail with the booked timeslot details to the student's email. The booked timeslot becomes blocked for the rest of the students. The student is not allowed to make double bookings. If the student tries to do so, the system gives a rejection alert stating that their choice overlaps with another booking they made.

8.1 View timeslots – after deadline



Action	Explanation
1	The student can filter the companies based on their specialization. When applying a filter or more, the system displays only the companies with job training opportunities in the selected field(s).
2	Only companies with remaining timeslots are shown after the deadline.

8.1 View timeslots – after deadline (pop-up)

Action	Explanation
3	This list contains all the remaining available timeslots for the company after the deadline. Booking is not allowed anymore. The student communicates there choice externally to the coordinator.

2.1.2.9 Provide feedback

Functionality: As a student, I can provide feedback.

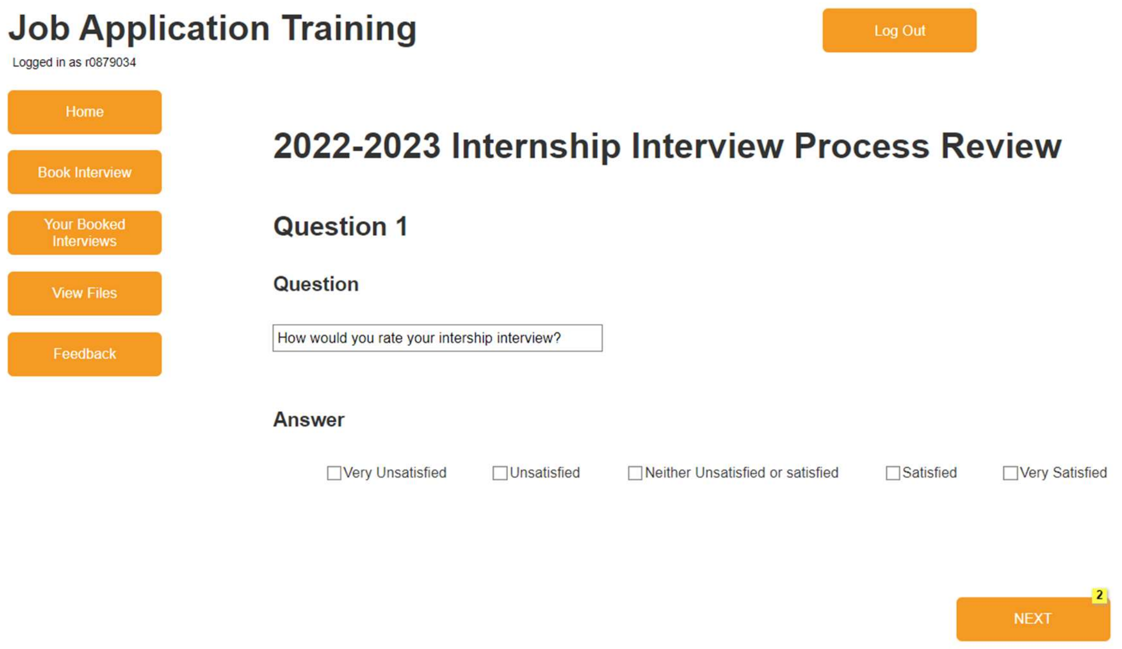
Precondition: The student receives an e-mail from the system.

Normal flow: The system displays a questionnaire which was prepared by the coordinator. The actor fills out the questionnaire with feedback regarding the job interview training process. The system gathers all the feedback from the questionnaires and stores the results.

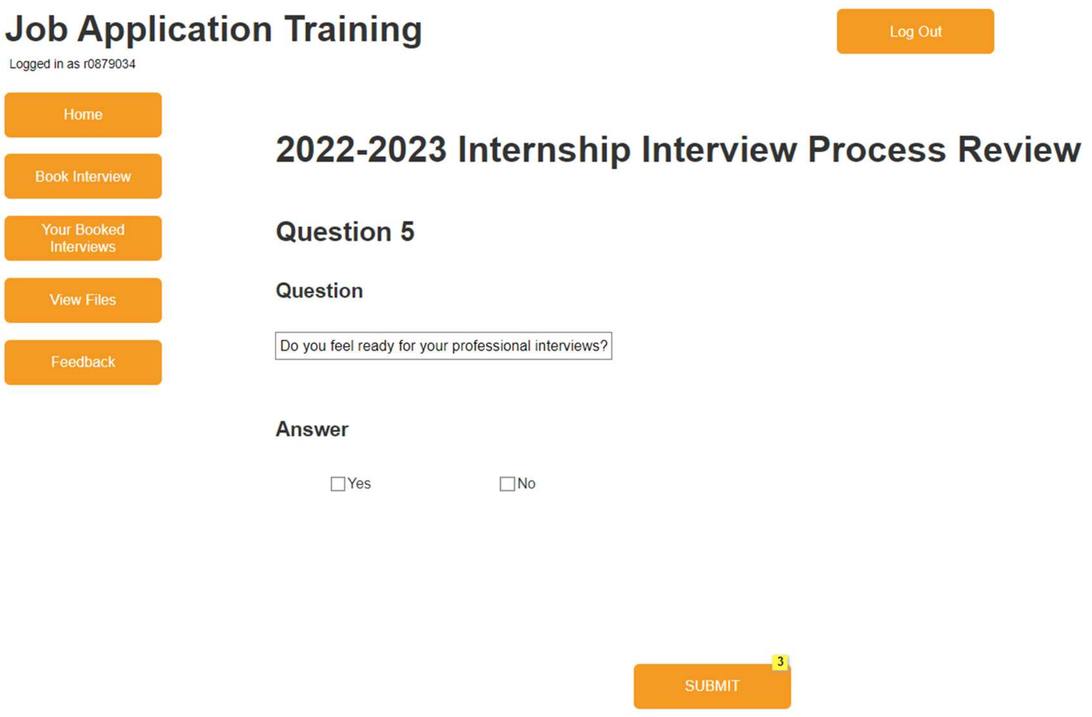
Screens:

9.0 Questionnaire – Provide feedback

Action	Explanation
1	Display the first question in the questionnaire



Action	Explanation
2	Proceed to the next question



Action	Explanation
3	Submit the answers given to the questionnaire and save the replies

2.1.2.10 Monitor feedback

Functionality: As a coordinator, I can monitor the feedback results from students.

Precondition: The coordinator is logged in.

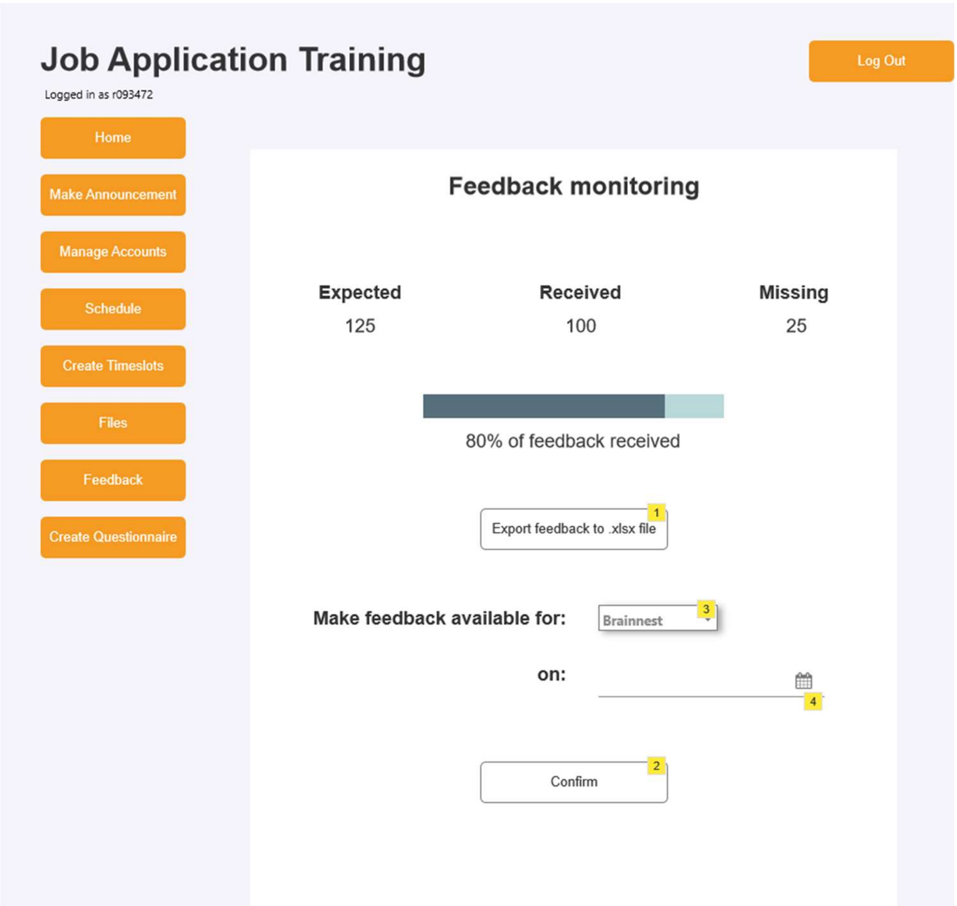
Normal flow: The system displays the number of expected, received, and missing feedback forms from students.

Alternatives:

- Export feedback: The coordinator has the option to export the feedback results from students for reviewing them. The system collects all the received feedback into an Excel file and exports it.

Screens:

10.0 Monitor feedback



Action	Explanation
1	Export all received feedback to an .xlsx (excel) file.
2	Set received feedback for specified company available for viewing by that company on the chosen date. This date is displayed on screen “11.0 View feedback – company”.
3	This is a list of the participating companies.
4	The coordinator can choose the date for when the feedback is available for the chosen company.

2.1.2.11 View feedback

Functionality: As a company, I can view relevant feedback.

Precondition: The company is logged in.

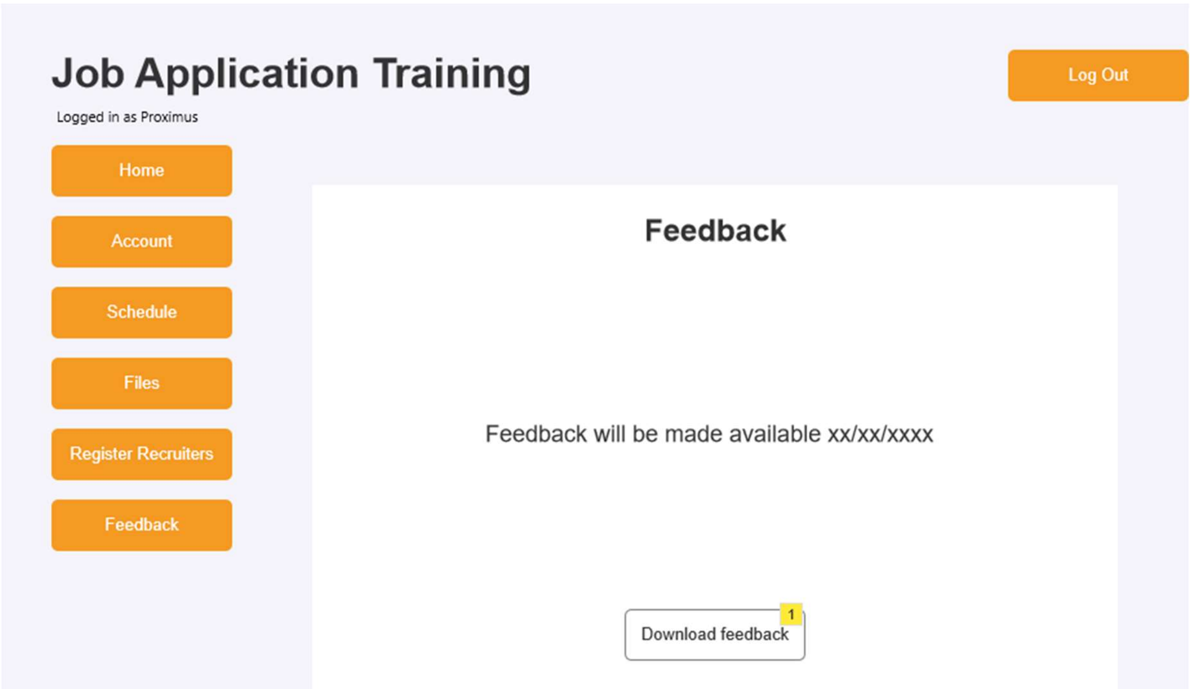
Normal flow: The system makes the option to dowload the feedback available after a certain date that is set by the coordinator.

Alternative flow:

- Download feedback: The actor can download the feedback received from students.

Screens:

11.0 View feedback - company



Action	Explanation
1	Download the feedback once a coordinator has made it available to the company.

2.1.2.12 Upload file

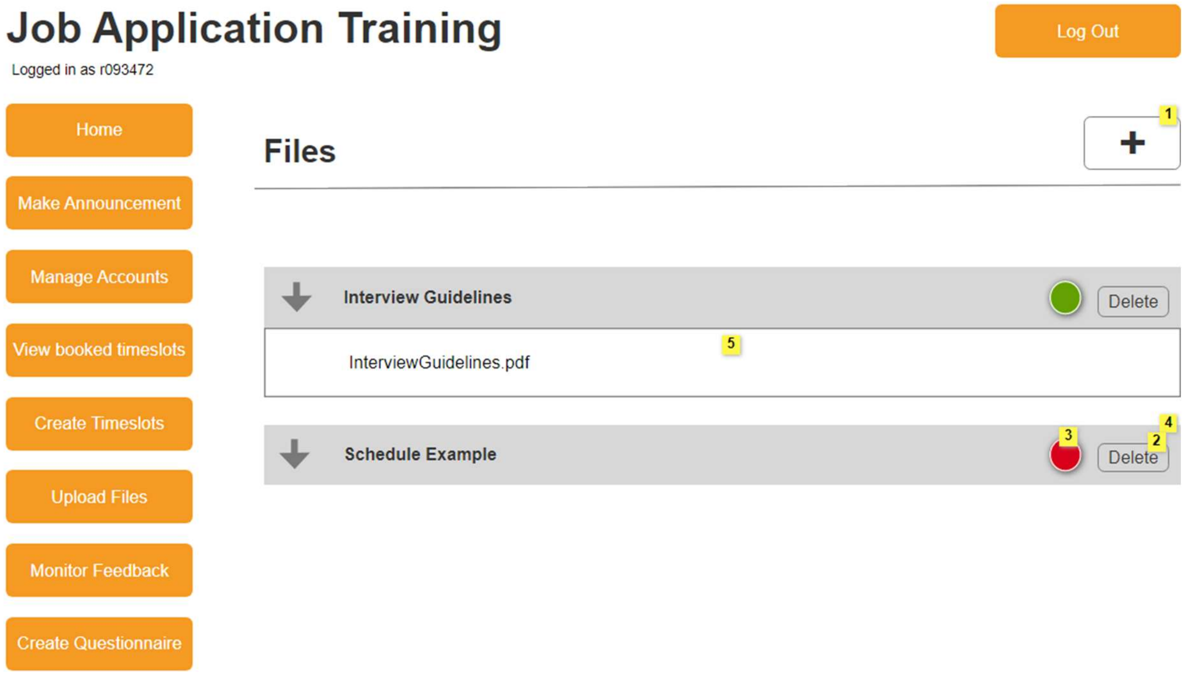
Functionality: As a coordinator, I can upload files.

Precondition: The coordinator is logged in.

Normal flow: The system asks the actor to select a file to upload (Word, PowerPoint, Excel, etc.). The actor selects the file and the target audience. The system confirms that the file has been uploaded and sends an email notifying the target audience that a file has been uploaded.

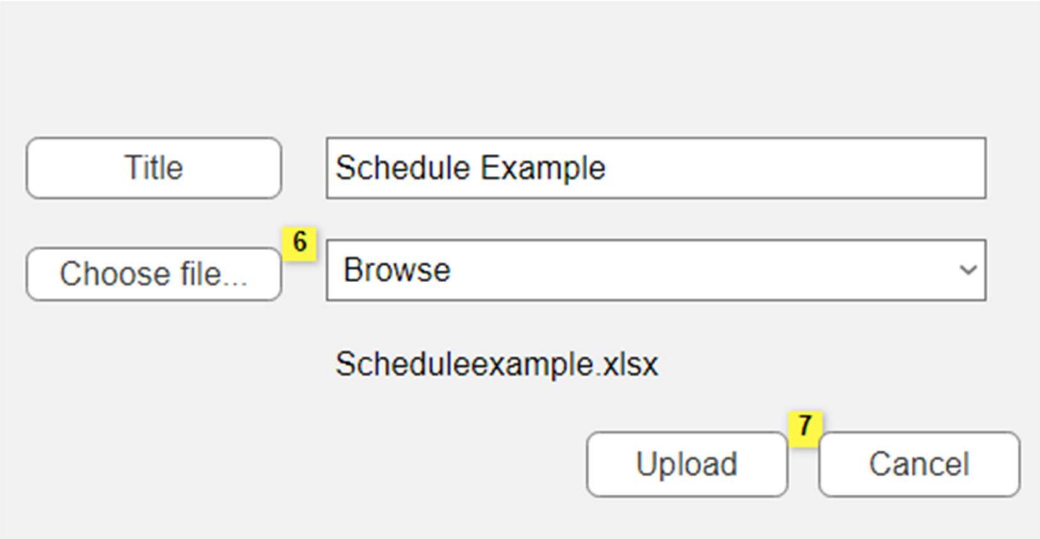
Screens:

12.0 Upload files – coordinator



Action	Explanation
1	Opens the window to upload a new file.
2	Opens a prompt to confirm the deletion of the file.
3	Click on this to publish the file. Opens a prompt where the user can choose to make an announcement.
4	Click to toggle the list of files under the section.
5	The user can click on the link to display the file in the application if possible (if it is a preview compatible file).

12.0 Upload files – coordinator upload file (pop-up)



Action	Explanation
6	Select a file to upload
7	Uploads the file and asks the user if they want to make an announcement.

2.1.2.13 View file

Functionality: As a student, I can view files.

Precondition: The student is logged in.

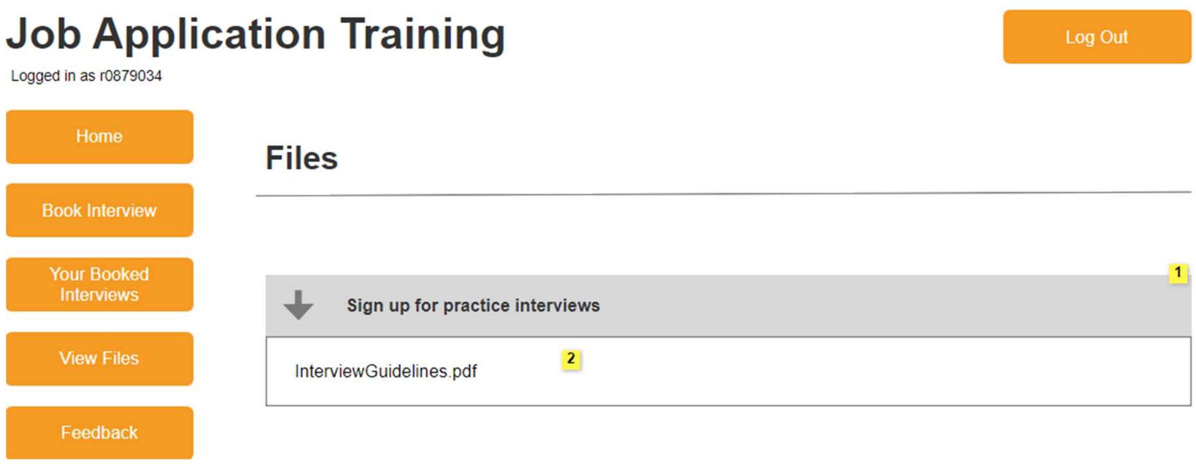
Normal flow: The system displays a list of all uploaded files by the coordinator. The actor selects the file to view. The system displays the chosen file's content.

Alternative flow:

- Download file: The actor can download the chosen file.

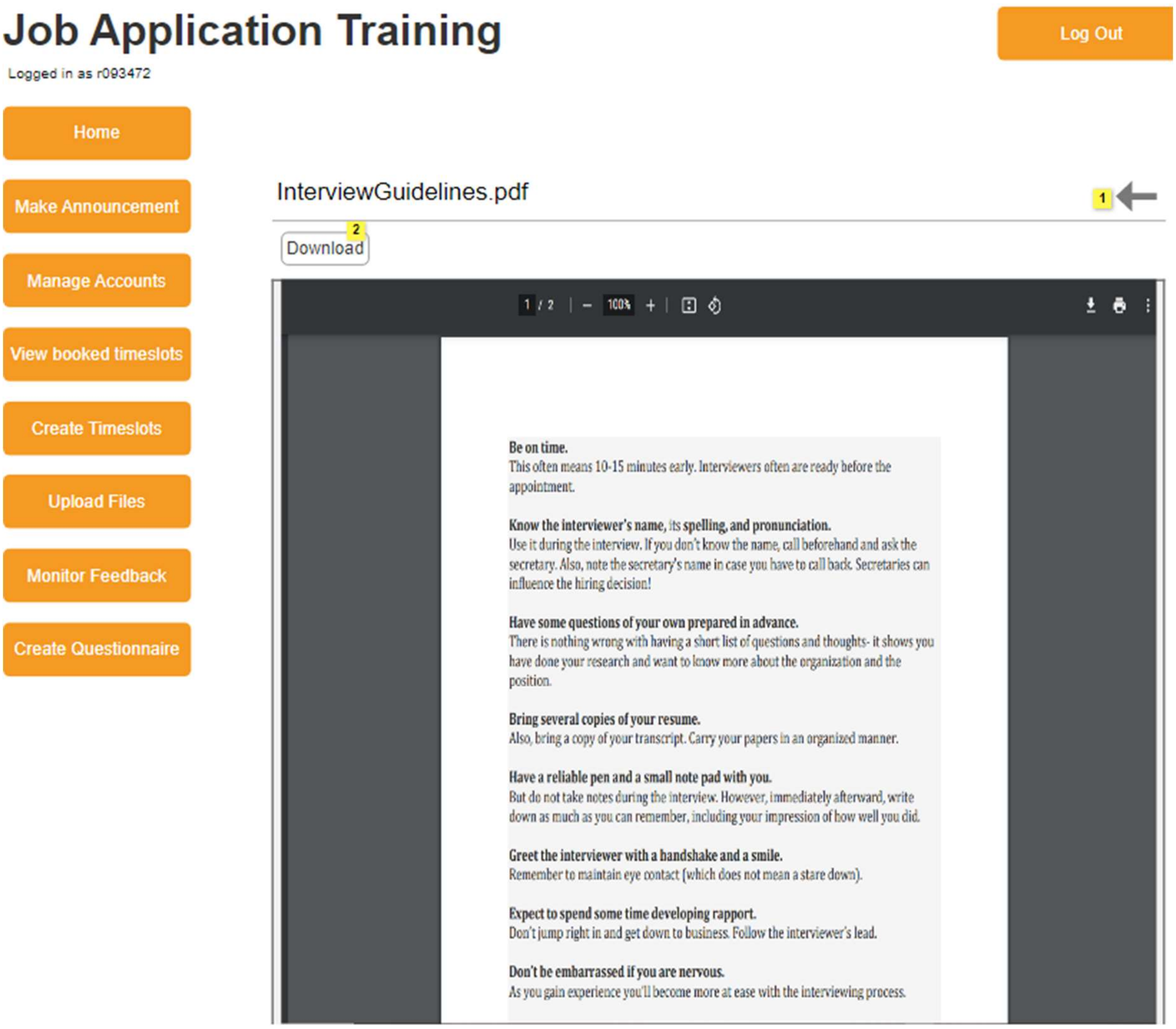
Screens:

13.0 View files - student



Action	Explanation
1	Click to see files.
2	Click to open the file preview.

13.1 File Example



Action	Explanation
1	Return to the file overview.
2	This will download the file shown in the preview.

2.2 Non-functional requirements

In this section of the document you will find all of our non-functional requirements. Here we will describe our conditions and restrictions that must be met.

1. Implementation

First of all we will make use of the Laravel 9 PHP framework. This means we will make use of multiple programming languages, but mostly PHP and HTML. This will make it possible to easily create a webappliction without too much hassle. This means we will have a clean and easy project with great performance. Also everyone in our "next" coding team has some experience with Laravel, so everyone can work on it together. As a Database we will make use of MySQL. This is a really user-friendly and well-known relational database. It is very reliable and flexible to update later on.

2. External Interface

The system will need an external mailing system. We will use an API for this.

3. Performance

The performance needs to be stable. No audio processing is used however when booking there would be a lot of traffic. It needs to be scalable. The response time for booking a timeslot by the student should be instant in order not to cause lagging in the booking process. That would also reduce any overlap in bookings by different students for the same timelost. Scalability and reliability is also important. The system should be able to handle at least 180 users' traffic at the same time. When there is an overload the system just restricts loginsIf a user tries to login during that restricted period, the system responds with an error message saying "Sorry, we are currently experiencing too much traffic, please check back in 5 minutes". The system reserves login spots for coordinators though.

4. Quality requirements

Security is really important because company and private recruiter information like passwords and emails must not be leaked. Each user must only access the interfaces corresponding to their authorization levels. For example, a student cannot access the "Manage accounts" page which is controlled by the coordinator. If the security is not guaranteed, then consequences can reach severe levels for example, loss of participating companies, spam emails to different users, identity theft, missing opportunities, and lawasuits etc. Usability would be a great addition. Education applications should be usable by everyone. The application should be made to fully support text-to-speech software, navigation using keyboard keys, big fonts etc.

The application is straightforward so tutorials are not a must. But having pages like "Frequently asked questions" for help support is a good addition for better usability.

3 PRIORITY PER FUNCTIONALITY

In this section we will sum up all our functionalities with their priority according to the MoSCoW-priority.

M – Must have this.

S – Should have this if at all possible.

C – Could have this if it doesn't affect anything else.

W – Would like to have but won't have this time around.

1. **Login (M)**
2. **Manage accounts (M)**
3. **Manage timeslots (M)**
4. **Make announcements (S)**
5. **View booked timeslots (M)**
6. **Create questionnaire (S)**
7. **Manage company information (C)**
8. **Book timeslot (M)**
9. **Provide feedback (S)**
10. **Monitor feedback (S)**
11. **View feedback (C)**
12. **Upload file (C)**
13. **View files (C)**