



FINAL REPORT
19/01/2025

GTU Internship Management System

An internship management system for GTU departments

by Void*

CONTENTS

Chapter

- CHAPTER 1 – Group Members
- CHAPTER 2 – User Requirement Document
- CHAPTER 3 – Context Model
- CHAPTER 4 – Use Case Diagrams and Detailed Tables
- CHAPTER 5 – Sequence Diagram
- CHAPTER 6 – Potential Users

1. Group Members:

Student Name	Student ID
Cemal BOLAT	210104004010
Musab KARDEŞ	210104004003
Gülçin HACIOSMANOĞLU	210104004012
Ömer Faruk OLKAY	210104004039
Ahmet Baha ÇEPNİ	210104004056

2. User Requirement Document

2.1. Introduction

The GTU Internship Management System aims to facilitate role-based management and tracking of student internships within Gebze Technical University's departments. The system supports functionalities like user authentication, internship data tracking, reporting, and email notifications while catering to the specific needs of different user roles: Super Administrators, Department Administrators, and Regular Users.

2.2. Stakeholders and Expectations

- Super Admin
 - Add / Remove / List Department Admins
 - Add / Remove / List Departments
 - Add / View Term Details
- Department Admin
 - Add / Remove / List Users
- Regular Users
 - Search / Evaluate Internships
 - Export / List / Delete / Download Reports
 - Displaying Dashboard
 - Send Mail to Students
 - Changing Password Properly

2.3. Functional Requirements

2.3.1. Super Admin Functionalities

- **Department Admin Management:** The Super Admin can add, remove, and list Department Admins, ensuring that department-specific permissions are granted.
- **Department Management:** The Super Admin can add, remove, and list departments within the system. This helps maintain an organized structure of the university's departments.
- **Term Management:** The Super Admin can add, view, and list term details such as start and end dates, deadlines for internship applications, and other relevant information for each academic term.

2.3.2. Department Admin Functionalities

- **Regular User Management:** The Department Admin can add, remove, and list Regular Users within their respective departments. This functionality ensures that Regular Users are assigned to their appropriate departments and can Access proper internship data.

2.3.3. Regular User Functionalities

- **Internship Management:** Regular Users can search and evaluate the internship statuses of students based on data imported from an external document system (e.g., Google Drive).

- **Report Management:** Users can fill out a form to request a report for a specific academic term, semester, and set of commissioners. The system generates a downloadable document with the requested data. Additionally, users can review exported reports from departments and have the option to delete or download them.
- **Displaying Internship Dashboard:** Dashboards must present internship statistics filtered by term and/or company. Graphical representations (e.g., bar charts) of internship trends should be provided.
- **Sending Mail to Students:** Users can send emails to specific students directly from the system. Emails should include custom messages composed in a modal interface. The system provides a confirmation or error message after sending the email.
- **Password Management:** Securely reset and update passwords for all users with error-free functionality and user-friendly interfaces.

2.4. Nonfunctional Requirements

2.4.1 Performance

- Ensure seamless interaction with the system, handling up to 1000 concurrent users.
- Generate reports within 5 seconds.

2.4.2 Security

- Encrypt all sensitive data.
- Require strong passwords (minimum 8 characters, at least one uppercase letter, one number, and one special character).
- Regularly audit and log system activities.

2.4.3 Usability

- Provide an intuitive and responsive user interface.
- Ensure accessibility across desktop and mobile platforms.

2.4.4 Availability

- Maintain a 99.9% uptime for the system.
- Provide regular backups for data integrity.

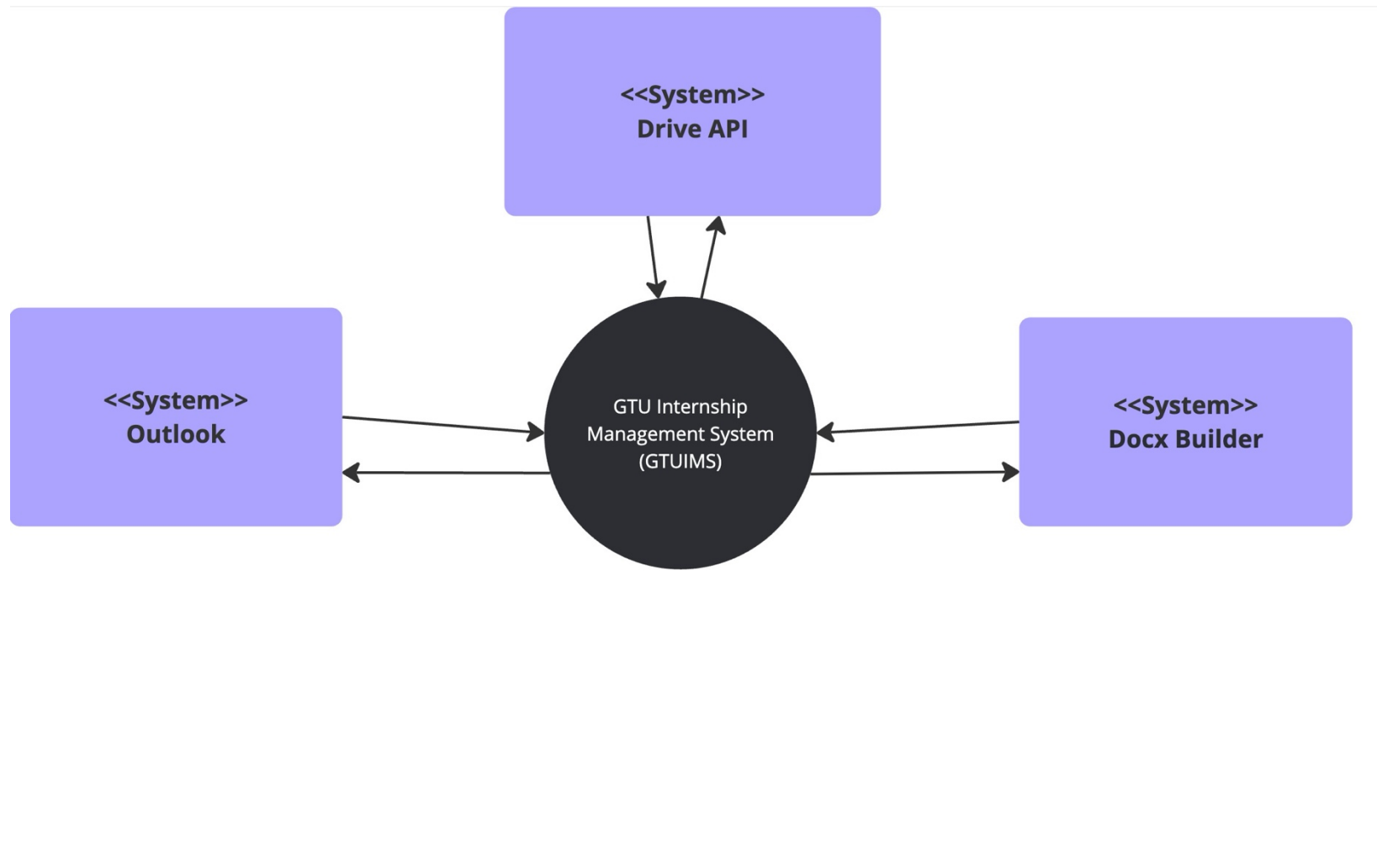
2.5. Constraints

- The system must comply with university data privacy regulations and GDPR (General Data Protection Regulation).
- The platform's design must adhere to the branding guidelines of GTU.

2.6. Assumptions

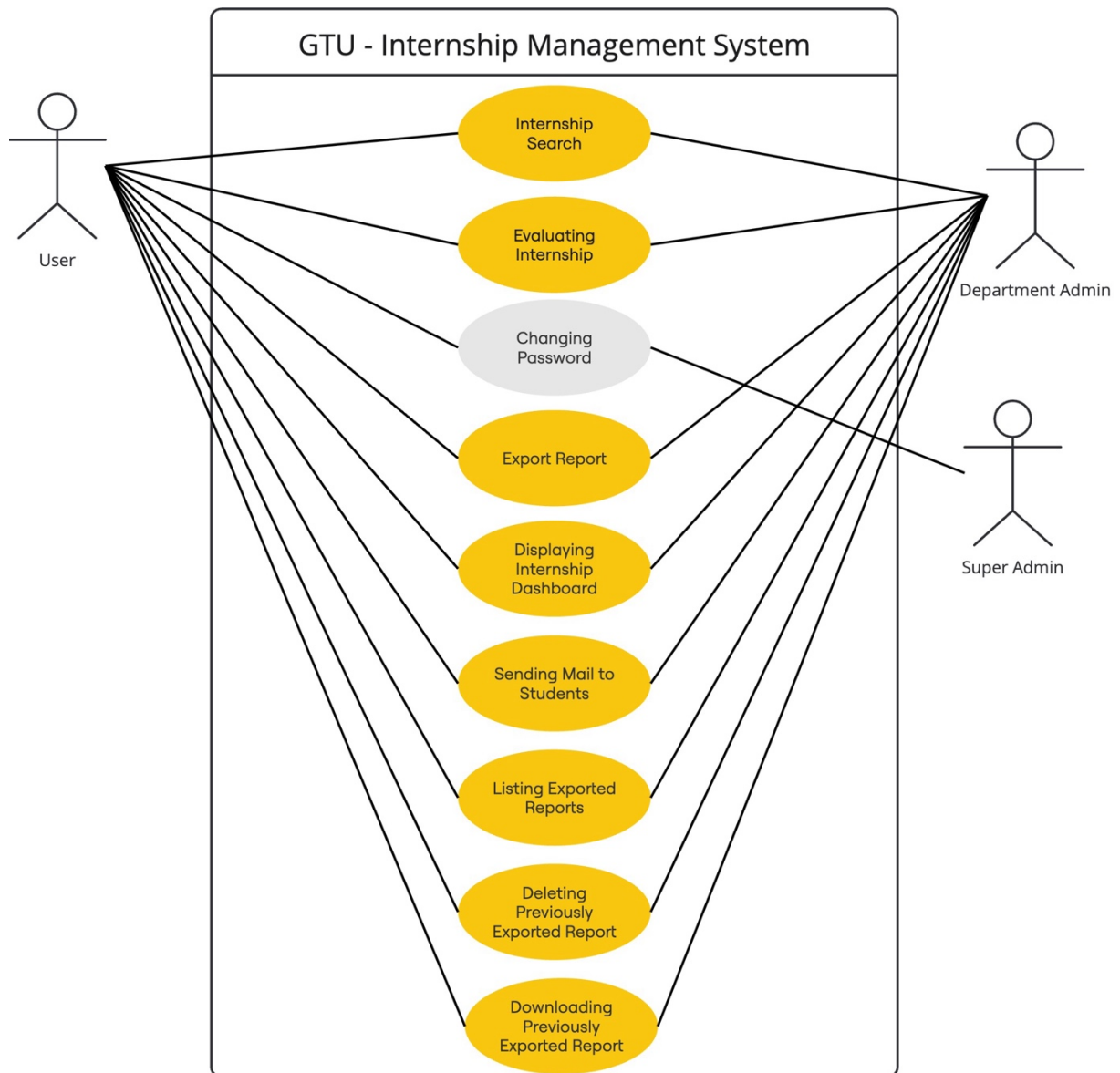
- All users will have valid email addresses for authentication and notifications.
- Administrators will provide complete and accurate data during system setup.
- The university IT infrastructure will support the system's deployment and maintenance.

3.Context Model



4. Use case diagram:

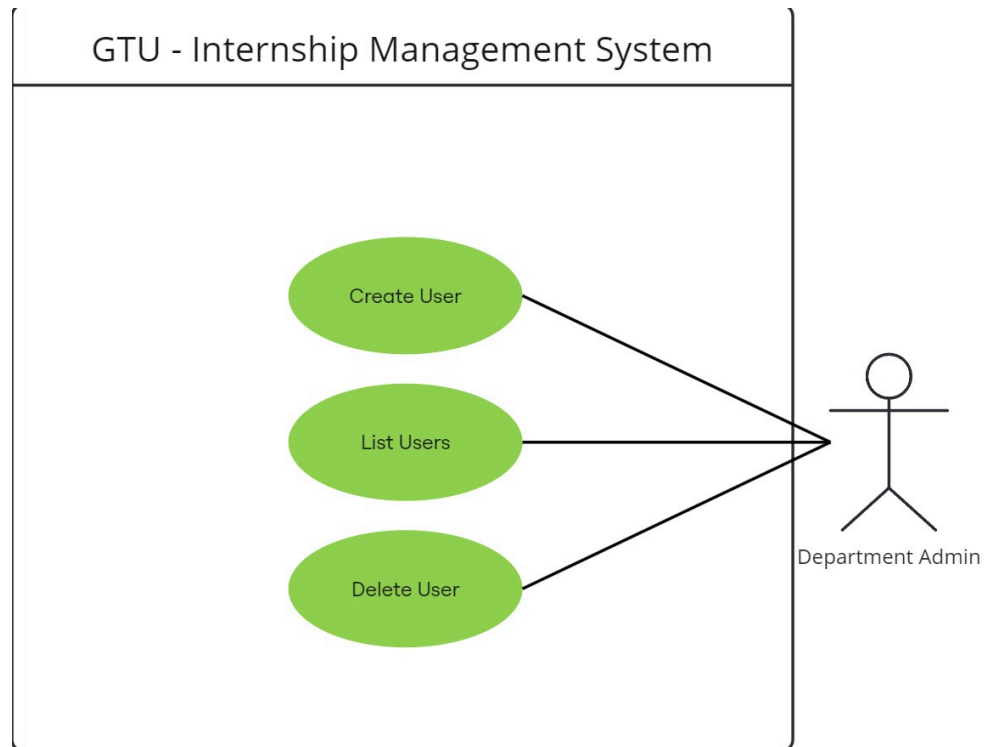
- User – Department Admin – Super Admin



- Super Admin



- Department Admin



Detailed Tables

System	GTU - Internship Management System
Use Case	List Departments
Actors	Super Admin
Description	When the Super Admin enters the super admin panel, they are automatically presented with a list of all departments. This list is shown in a structured format with proper pagination to ensure ease of navigation. The Super Admin can view department names, and the data is presented in an organized manner.
Data	Departments' list with name.
Stimulus	Super Admin entered own management panel.
Response	Departments are listed with proper pagination.
Comments	Only Super Admin has exclusive rights on listing departments.

System	GTU - Internship Management System
Use Case	Create Department
Actors	Super Admin
Description	The Super Admin initiates the action to create a new department in the system by providing the department name. Upon submission, the system validates the input and instantly updates the department records.
Data	Department Name
Stimulus	Super Admin triggers the creation of a new department by entering the department name. Then clicks create button.
Response	The system updates the department records instantly. It may show proper errors for invalid or already existed names.
Comments	Only Super Admin has exclusive rights to modify the system's structure by managing departments.

System	GTU - Internship Management System
Use Case	Delete Department
Actors	Super Admin
Description	The Super Admin initiates the action to delete an existing department from the system by selecting. Once the action is confirmed, the system updates the department records instantly and removes the department from the database.
Data	Department Name
Stimulus	Super Admin clicked the specified department's delete button.
Response	The system instantly updates the department records by removing the specified department.
Comments	Only the Super Admin has exclusive rights to modify the system's structure, including the deletion of departments. Other roles do not have permission to perform this action. Deleting department also deletes all users at specified department.

System	GTU - Internship Management System
Use Case	List Department Admins
Actors	Super Admin
Description	When the Super Admin enters the super admin panel, they are automatically presented with a list of all department admins. This list is shown in a structured format with proper pagination to ensure ease of navigation. The Super Admin can view names, mails, departments and the data is presented in an organized manner.
Data	Department admins' list with name, mail, department.
Stimulus	Super Admin entered super admin panel.
Response	Department admins are listed with proper pagination.
Comments	Only Super Admin has exclusive rights on listing department admins.

System	GTU - Internship Management System
Use Case	Create Department Admin
Actors	Super Admin
Description	The Super Admin initiates the creation of a new Department Admin by filling form with necessary inputs. After filling in the details, the Super Admin clicks the create button to submit the request. The system validates the inputs then instantly updates department admin list.
Data	Department Admin's name, mail, password, department.
Stimulus	Super Admin triggers the creation of a new department admin by entering the proper inputs. Then clicks create button.
Response	Department Admin Created: The system updates the department records instantly. Creation Failed: The system gives appropriate errors for appropriate conditions such as invalid password, mail has been used before, invalid name, etc.
Comments	The Super Admin has exclusive rights to modify the system's structure by managing department admins. The password must follow our password policy which is: minimum 8 characters, at least one uppercase letter, one number, and one special character.

System	GTU - Internship Management System
Use Case	Delete Department Admin
Actors	Super Admin
Description	The Super Admin initiates the action to delete an existing department admin from the system by selecting. Once the action is confirmed, the system updates the department admin records instantly and removes the department admin from the database.
Data	Department Admin's mail.
Stimulus	Super Admin clicked the specified department admin's delete button.
Response	The system instantly updates the department admin records by removing the specified department admin.
Comments	Only the Super Admin has exclusive rights to modify the system's structure, including the deletion of department admins. Other roles do not have permission to perform this action.

System	GTU - Internship Management System
Use Case	List Users
Actors	Department Admin
Description	When the Department Admin enters the department admin panel, they are automatically presented with a list of all users. This list is shown in a structured format with proper pagination to ensure ease of navigation. The Department Admin can view names, mails and the data is presented in an organized manner.
Data	Users' list with name and mail.
Stimulus	Department Admin entered department admin panel.
Response	Users are listed with proper pagination.
Comments	Only Department Admin has exclusive rights on listing users.

System	GTU - Internship Management System
Use Case	Create User
Actors	Department Admin
Description	The Department Admin initiates the creation of a new Users by filling form with necessary inputs. After filling in the details, the Department Admin clicks the create button to submit the request. The system validates the inputs then instantly updates user list.
Data	User's name, mail and password.
Stimulus	Department Admin triggers the creation of a new user by entering the proper inputs. Then clicks create button.
Response	User Created: The system updates the user records instantly. Creation Failed: The system gives appropriate errors for appropriate conditions such as invalid password, mail has been used before, invalid name, etc.
Comments	The Department Admin has exclusive rights to modify the system's structure by managing users. The password must follow our password policy which is: minimum 8 characters, at least one uppercase letter, one number, and one special character.

System	GTU - Internship Management System
Use Case	Delete User
Actors	Department Admin
Description	The Department Admin initiates the action to delete an existing user from the system by selecting. Once the action is confirmed, the system updates the user records instantly and removes the user from the database.
Data	User's mail. Department Admin's department.
Stimulus	Department Admin clicked the specified user's delete button.
Response	The system instantly updates the user records by removing the specified user.
Comments	Only the Department Admin has exclusive rights to modify the system's structure, including the deletion of users. Other roles do not have permission to perform this action.

System	GTU - Internship Management System
Use Case	Changing Password
Actors	User - Department Admin – Super Admin
Description	<p>When a user requests to change their password, the system sends an authentication code to the provided email address. The user enters this code to verify their identity. After verification, the system allows the user to set a new password. If the email is invalid, the authentication code is incorrect, or the new password does not meet the criteria, the process is reset to protect user privacy.</p>
Data	New Password, Mail, Authentication Code
Stimulus	The user initiates a password change by entering their email and requesting an authentication code.
Response	<p>Response has multiple process.</p> <ul style="list-style-type: none"> -The system sends an authentication code to the provided email. -After receiving the code, the user inputs it for verification. -Once verified, the user can set a new password. -If there are errors (invalid email, incorrect code, or invalid password), the system resets the process and requires the user to start over.
Comments	The system sends the authentication email via Gmail, and users should check their spam folders if they do not receive it promptly. For privacy reasons, any error resets the entire process, so users must carefully follow the steps.

System	GTU - Internship Management System
Use Case	Export Report
Actors	User - Department Admin
Description	The User or Department Admin fills out a form with proper inputs. After completing the form, they click the "Export Report" button to generate a report that contains all the internship information and results for the selected semester and students.
Data	<ul style="list-style-type: none"> • Date, Semester • Commission chairman, Two Commissioners • Student Information and Internship results.
Stimulus	The User or Department Admin clicks the "Export Report" button after providing the necessary information.
Response	The system generates and provides the user with an exported document that contains the full internship information and results for the specified terms (semester). The document is available for download or immediate use.
Comments	The date refers to the commission meeting, while the semester indicates the students who have completed their internships during that period.

System	GTU - Internship Management System
Use Case	Displaying Internship Dashboard
Actors	User - Department Admin
Description	The User or Department Admin views the internship dashboard, which displays statistics such as the number of students who passed or failed their internships. The dashboard allows users to filter the data based on various criteria such as term or company. One dashboard lists all internships filtered by term, while another includes an additional filter for companies, providing more detailed results based on company-specific internships.
Data	Internships information: term, company, results
Stimulus	The User or Department Admin selects filters (term and/or company) and views the updated internship statistics.
Response	The dashboard dynamically updates and displays internship records based on the selected filters. If the company filter is applied, it provides specific details about internships at that company; otherwise, it shows general term-based data.
Comments	<p>There are two dashboards:</p> <ul style="list-style-type: none"> • One that lists all internships based on the selected term. • Another that allows additional filtering by company to provide more granular internship statistics.

System	GTU - Internship Management System
Use Case	Internship Search
Actors	User - Department Admin
Description	The User or Department Admin uses the search functionality to find specific internships by applying filters. Upon submitting the search request, the system retrieves and displays a list of internships that match the search criteria. After the search results are displayed, users can view detailed information about each internship.
Data	All internships with details. Filtering options like student name, internship term etc.
Stimulus	The User or Department Admin enters search criteria and submits the search request.
Response	The system processes the request and returns a list of internships that match the search filters. Users can click on each result to view detailed information about the selected internship.
Comments	Both the User and Department Admin have access to the internship search feature. After performing a search, they can examine more detailed information about the internships in the results.

System	GTU - Internship Management System
Use Case	Evaluating Internship
Actors	User - Department Admin
Description	The User or Department Admin evaluates a student's internship by reviewing the internship. Once the evaluation is completed, the system updates the internship records based on the evaluation results. The updated results are reflected in the detailed information of the internship immediately.
Data	Internship and Student information.
Stimulus	The User or Department Admin initiates the evaluation process for an internship.
Response	The system updates the internship records according to the evaluation result, which is instantly reflected in the detailed internship information.
Comments	Both Users and Department Admins are authorized to evaluate internships. The evaluation process directly impacts the detailed information of the internship in real time.

System	GTU - Internship Management System
Use Case	Sending Mail to Student
Actors	User - Department Admin
Description	The User or Department Admin clicks mail button for specified student. After clicking mail button write message then clicks send button.
Data	Student's email, custom message
Stimulus	The User or Department Admin clicks the "Mail" button, enters a message in the modal, and clicks the "Send" button to send the email.
Response	The system sends the email to the student's registered email address with the provided message. If the email is successfully sent, a confirmation is shown; if there's an error (e.g., invalid email), the system displays an appropriate error message.
Comments	Feature helps user to communicate with student directly, The system sends message via Gmail, and users should check their spam folders if they do not receive it promptly

System	GTU - Internship Management System
Use Case	Creating Term and Dates
Actors	Super Admin
Description	The Super Admin adds a new academic term to the system. After entering details like term year, start, and end dates, the system updates the records.
Data	Term year, start dates, end dates
Stimulus	The Super Admin clicks the “add term” button then enters the dates and click save button
Response	The system successfully updates the term record. Appropriate error messages are displayed for invalid entries.
Comments	The Super admin also selects the boundary dates for that term period. For instance, start and end date of summer for 2024-2025. If a term exists already, it updates the dates.

System	GTU - Internship Management System
Use Case	Viewing Term Dates
Actors	Super Admin
Description	The user views the start and end dates of the existing academic terms in the system.
Data	Term name, start date, end date
Stimulus	The super admin clicks view term dates button.
Response	The system lists the start and end dates of the available terms.
Comments	The Super Admin can see all existing terms

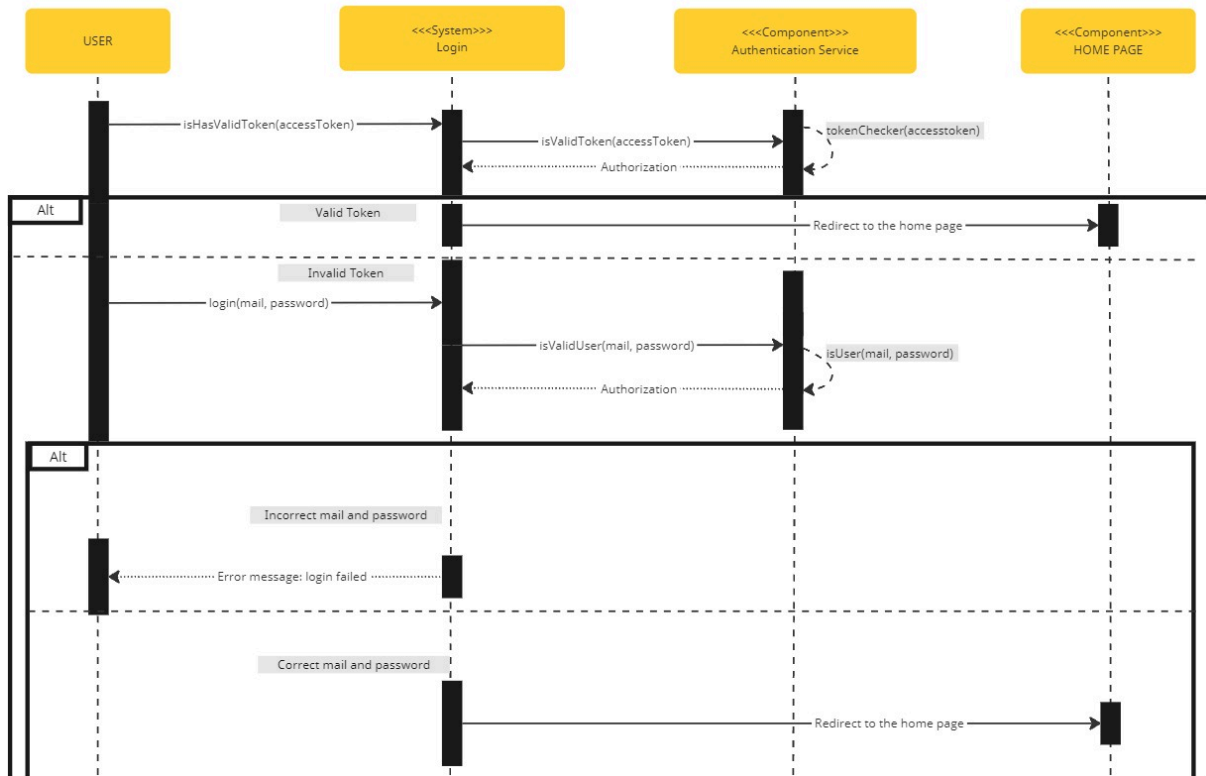
System	GTU - Internship Management System
Use Case	Listing Exported Reports
Actors	Department Admin – User
Description	The user views a list of previously exported reports for his department.
Data	Report names, dates, Department Name
Stimulus	The User clicks “My reports” button from navbar
Response	The system lists the reports with their names and dates.
Comments	Both the User and Department Admin have the ability to list reports for his department.

System	GTU - Internship Management System
Use Case	Downloading Previously Exported Report
Actors	Department Admin – User
Description	The user selects a previously exported report from the list and clicks the download button to retrieve the report.
Data	Report names, dates, Department Name
Stimulus	The user clicks the download button next to the report they wish to download.
Response	The system retrieves the selected report and provides it for download. If an error occurs (e.g., the report is unavailable), an appropriate error message is displayed.
Comments	Both the User and Department Admin have the ability to download previously exported reports.

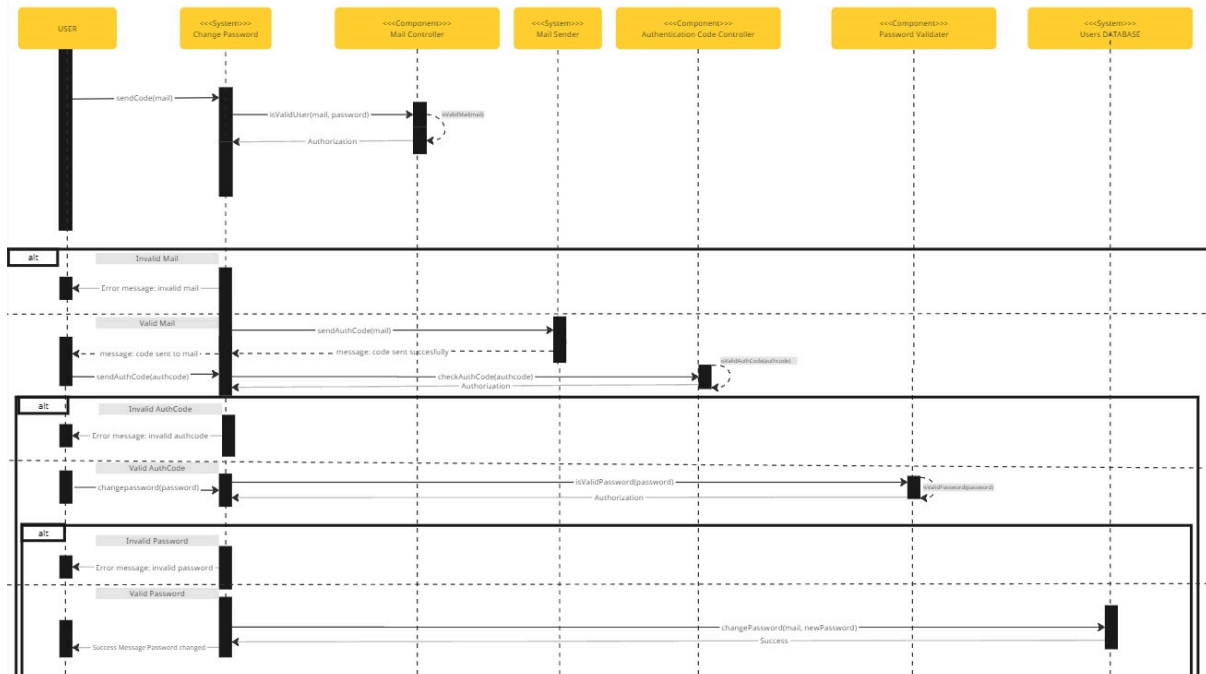
System	GTU - Internship Management System
Use Case	Deleting Previously Exported Report
Actors	Department Admin – User
Description	The Department Admin selects a previously exported report and deletes it from the system.
Data	Report names, dates, Department Name
Stimulus	The Department Admin clicks the delete button next to the selected report.
Response	The system removes the selected report from the list and the database. If an error occurs, the system shows an appropriate error message.
Comments	Both the User and Department Admin have the ability to delete previously exported reports.

5. Sequence Diagrams:

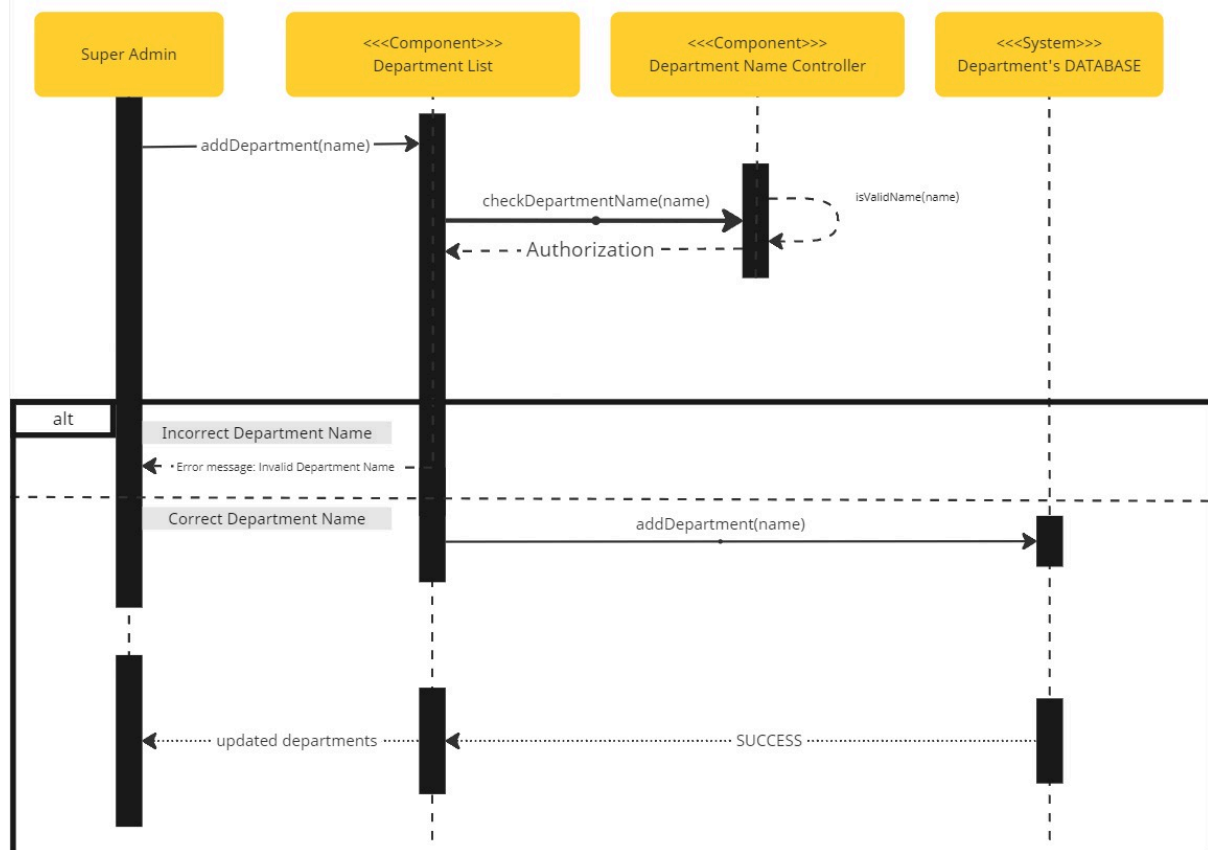
Login



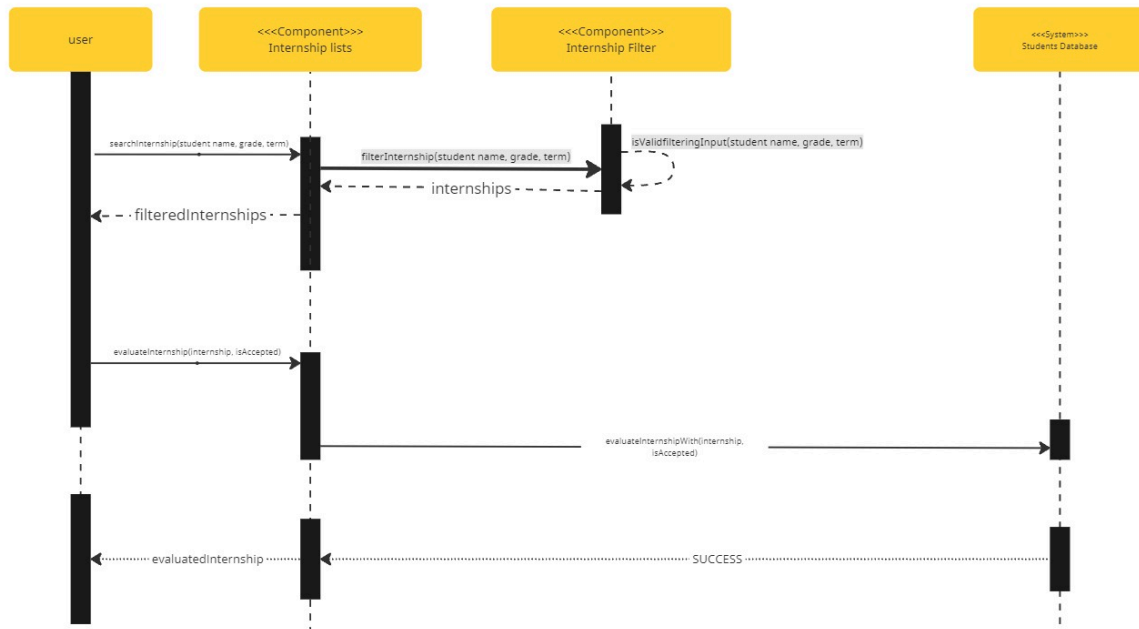
ForgotPassword



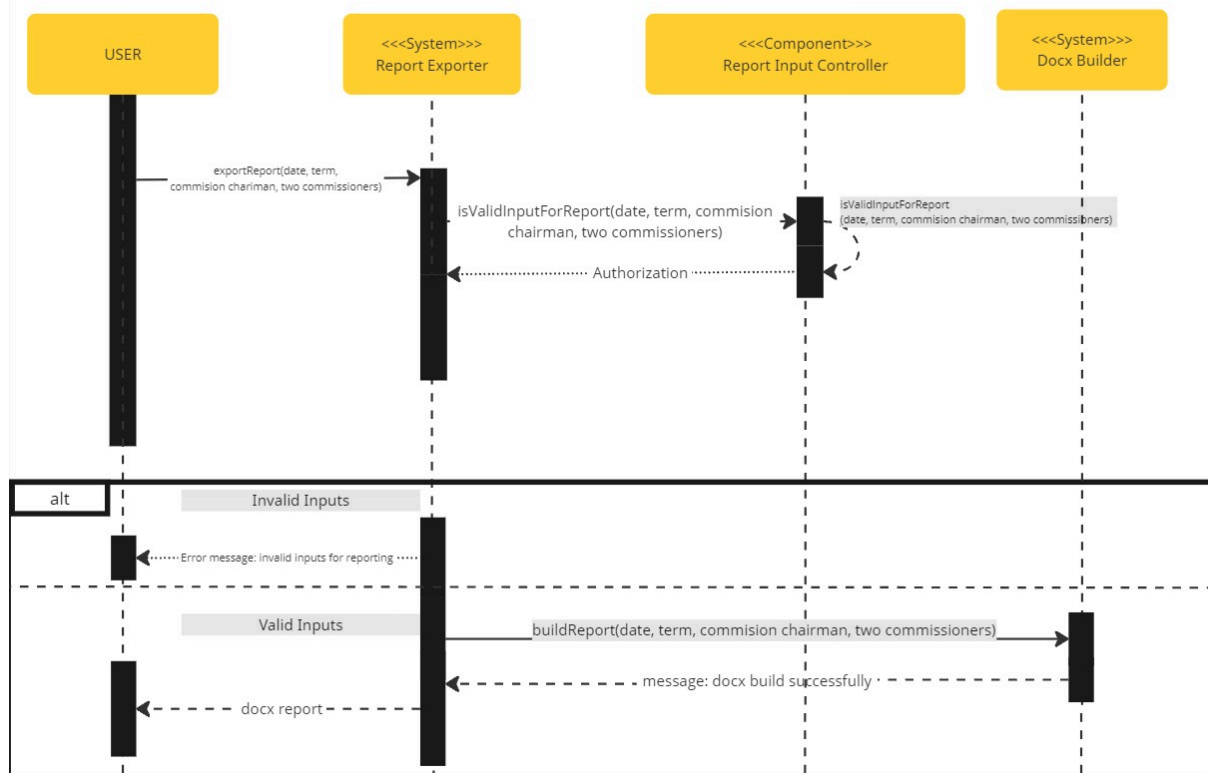
Add Department



EvaluateInternship



Export Report



6.Potential Users:

Our project is accessible to **Assoc. Prof. Dr. Habil Kalkan**. We have designed the project specifically with his requirements in mind, ensuring that all functionalities can be easily accessed and used by him. To prove this, we have conducted user testing sessions where **Assoc. Prof. Dr. Habil Kalkan** accessed the system, reviewed the features, and provided feedback. Based on this feedback, we made necessary improvements, confirming that the project meets the accessibility and usability standards.