



Bilkent University - 2024/2025 Spring

CS 319 - Object-Oriented Programming

TA Management System Project

Section 1

Team 9

Deliverable 2

Yüksel Barkın Baydar - 22201939

Deniz Öztürk - 22102126

Mehmet Anıl Yeşil - 22102614

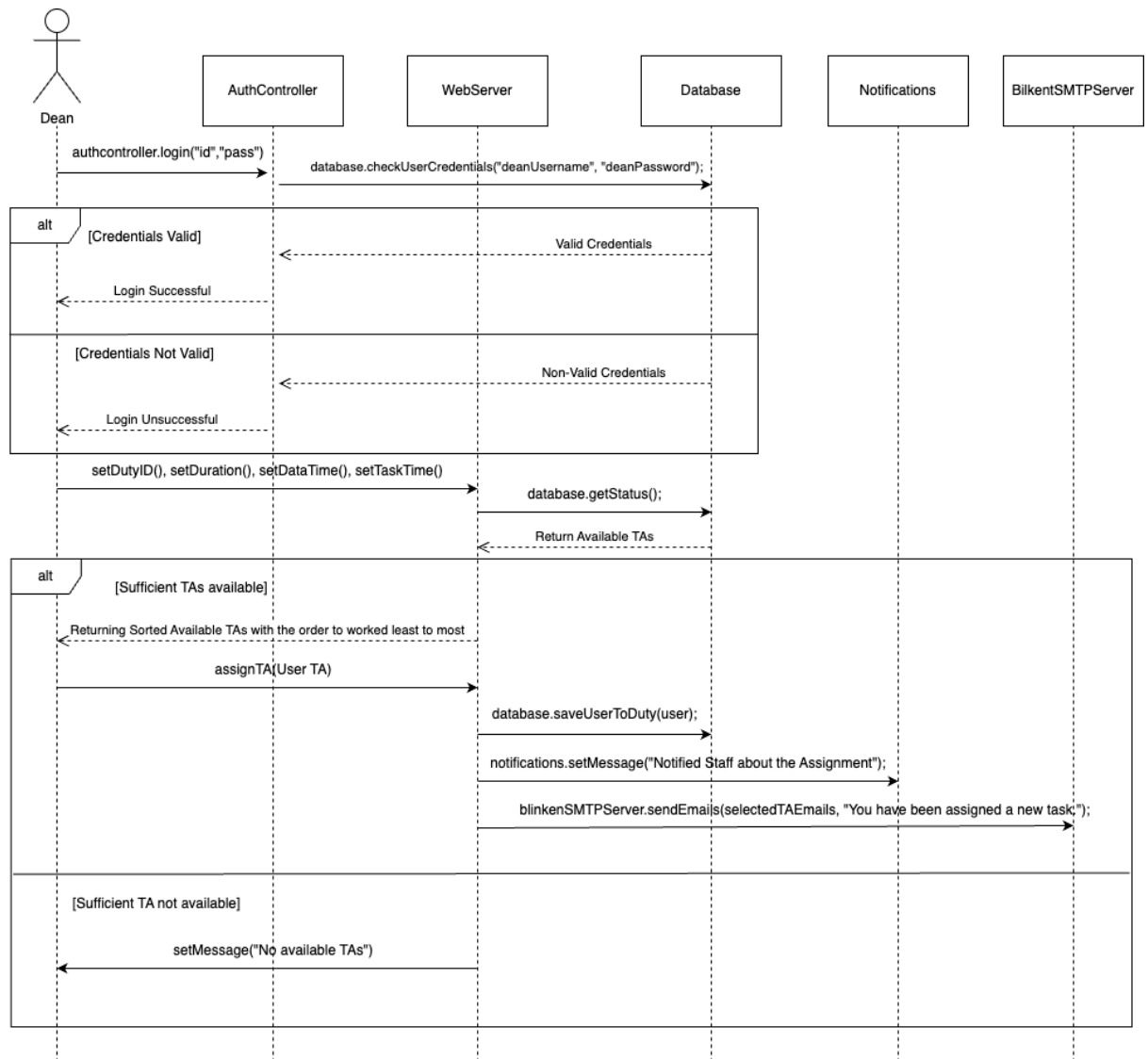
Cankutay Dünder - 22103284

Emre Uçar - 22203675

CONTENTS

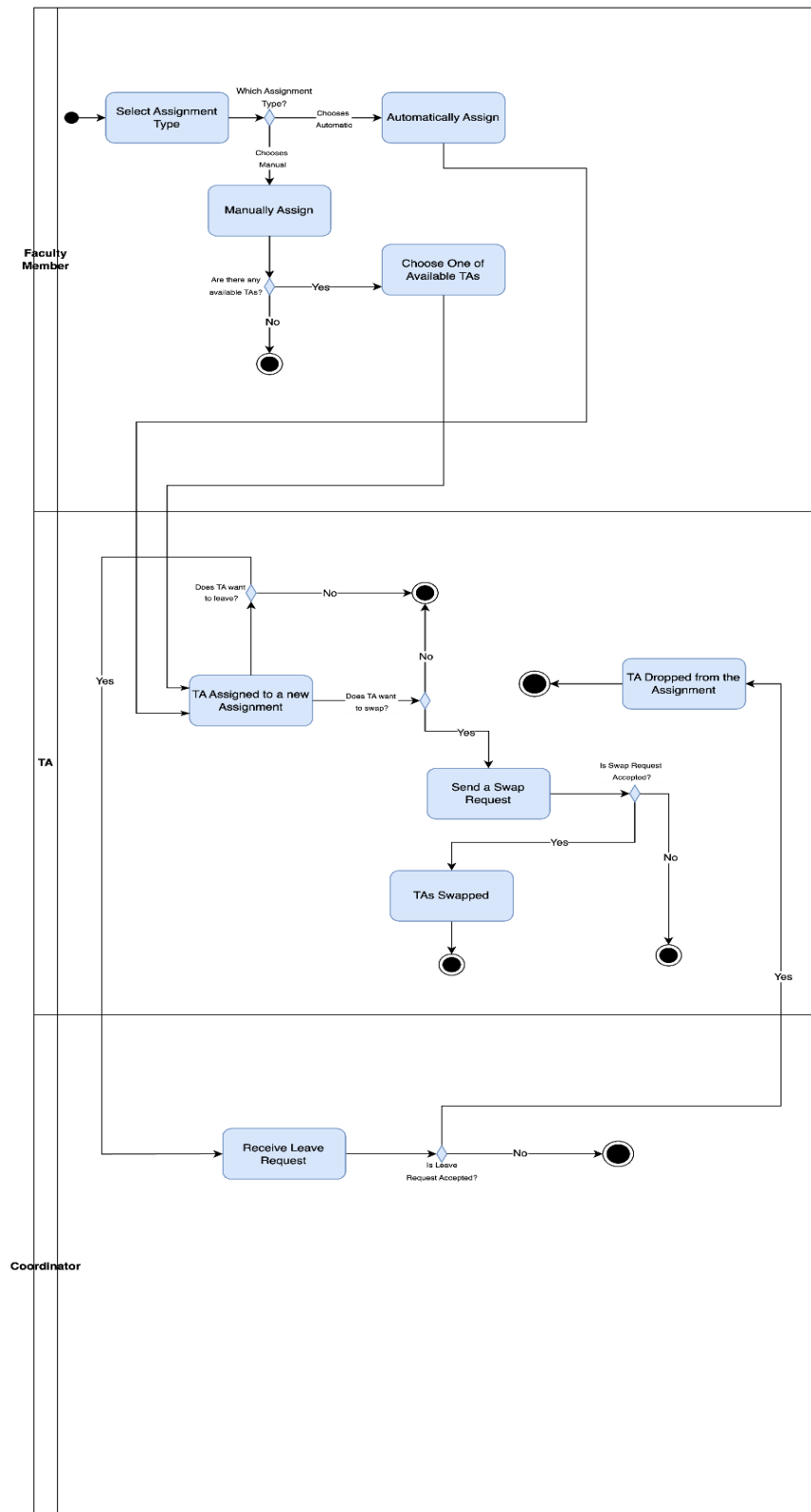
1. Sequence Diagram.....	1
2. Activity Diagrams.....	2
2.1 Proctoring Assignment Activity Diagram.....	2
2.2 Report Request Activity Diagram.....	3
3. State Diagrams.....	4
3.1 Notification State Diagram.....	4
3.2 Swap Request State Diagram.....	5
3.3 Report Request State Diagram.....	6
3.4 Leave Request State Diagram.....	6
4. Class Diagram.....	7
5. Non-Functional Requirements.....	8
Quality Requirements:.....	8
5.1 Usability:.....	8
5.2 Reliability:.....	8
5.3 Performance:.....	8
Constraints or Pseudo Requirements:.....	9
5.4 Implementation:.....	9
5.5 Legal:.....	9
6. Mock-Up Screens.....	10
6.1 Home Dashboard:.....	10
6.2 Tasks for Situations for Started, Approval, Completed:.....	10
6.3 Team Leaders Page:.....	11
6.4 Employee - People Page:.....	11
6.5 Departments Page:.....	12
6.6 Leave - Swap Request Page:.....	13
6.7 Attendance Page:.....	13
6.8 Leave Request Page:.....	14
6.9 Add Department Page:.....	14
6.10 Edit Department Page:.....	15
6.11 Add Employee Page:.....	15
6.12 Add Event to Calendar Page:.....	16
6.13 Calendar Page:.....	16
6.14 Notification Part:.....	17
6.15 Sign in Page:.....	17
6.16 Forgot Password Page:.....	18
6.17 Account Verification Page:.....	18

1. Sequence Diagram

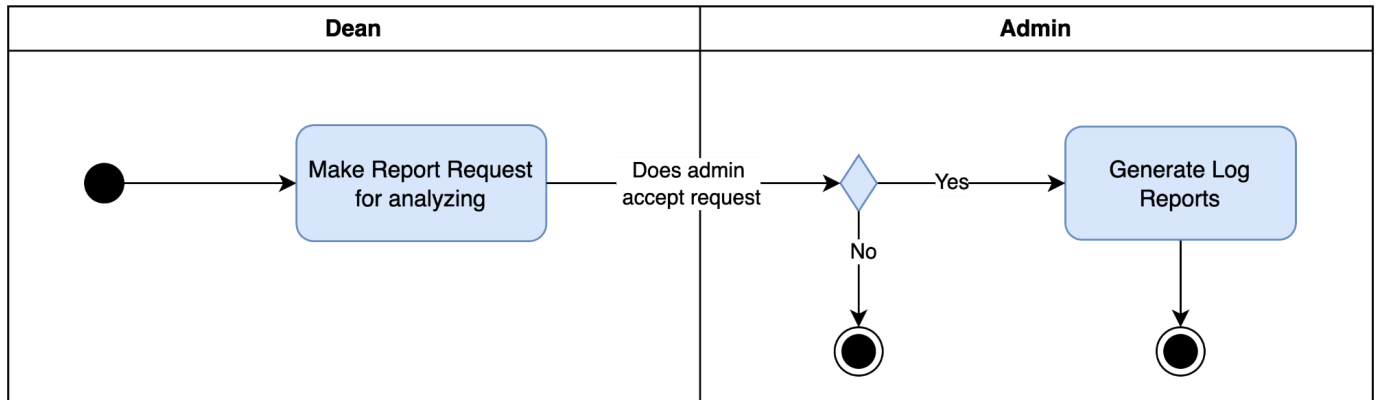


2. Activity Diagrams

2.1 Proctoring Assignment Activity Diagram

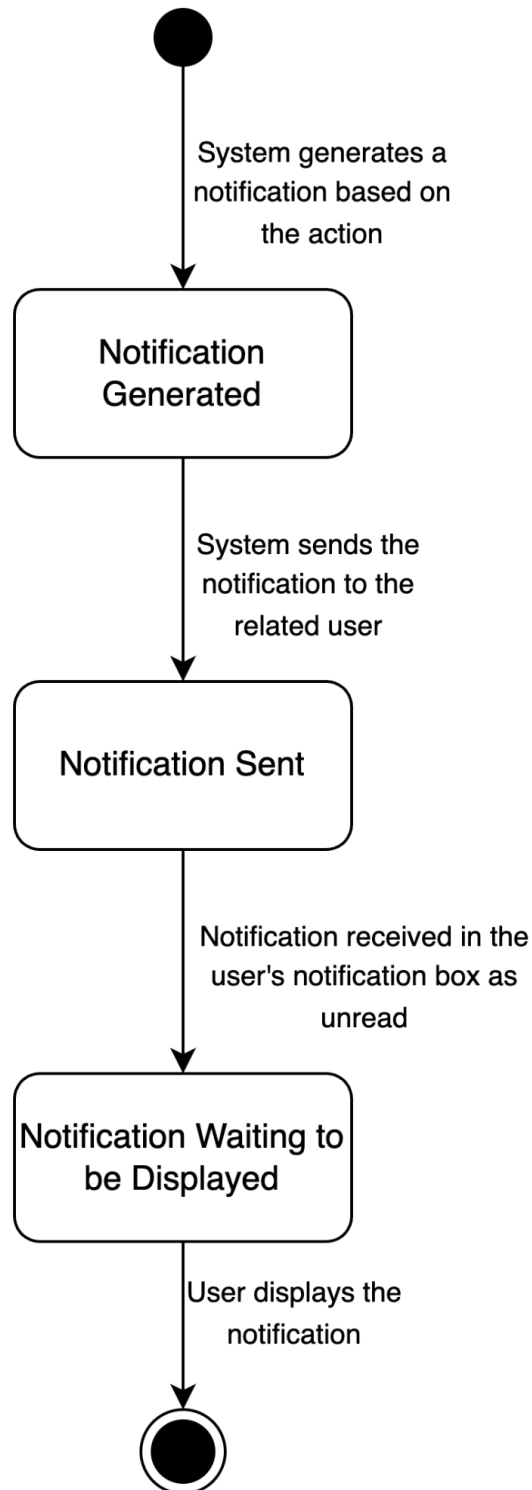


2.2 Report Request Activity Diagram

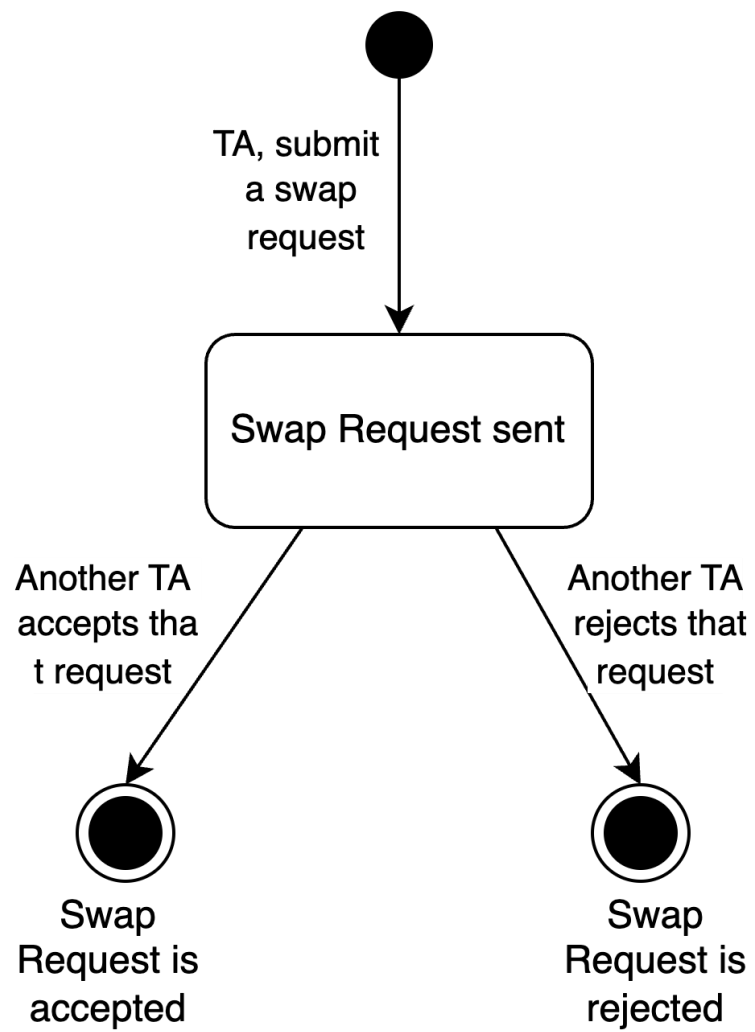


3. State Diagrams

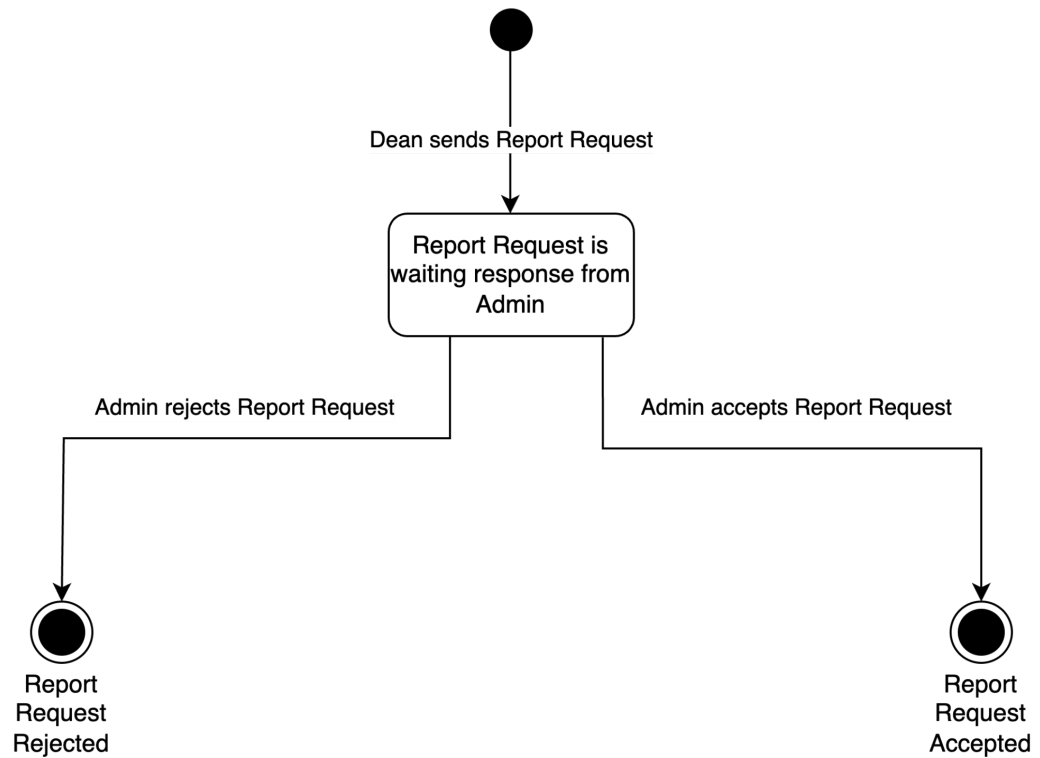
3.1 Notification State Diagram



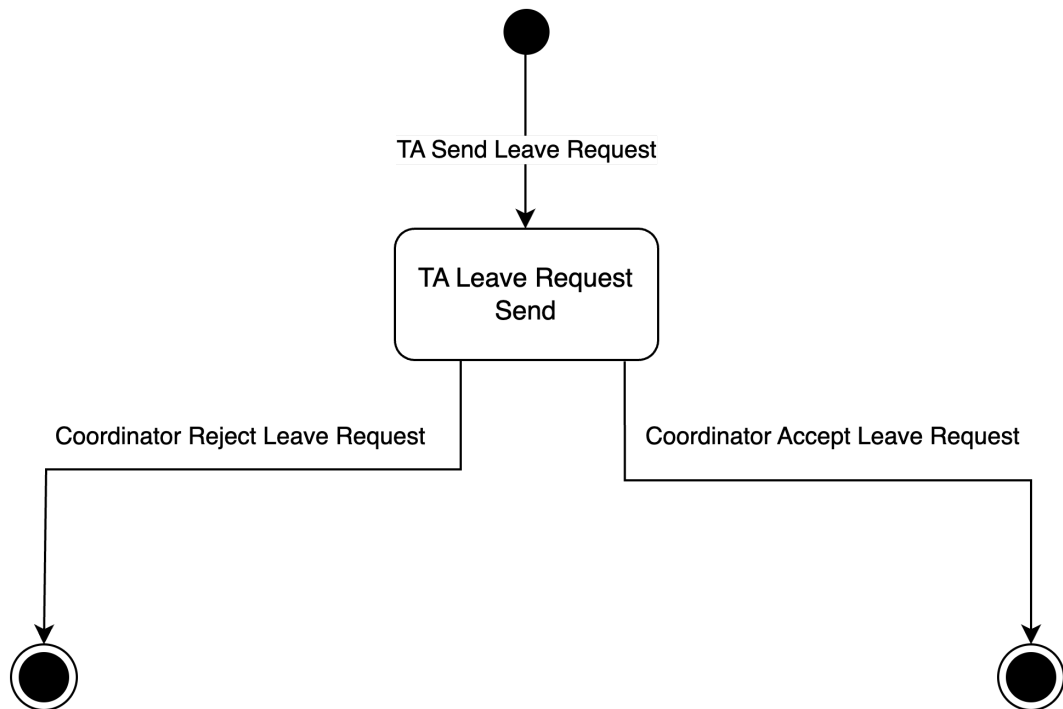
3.2 Swap Request State Diagram



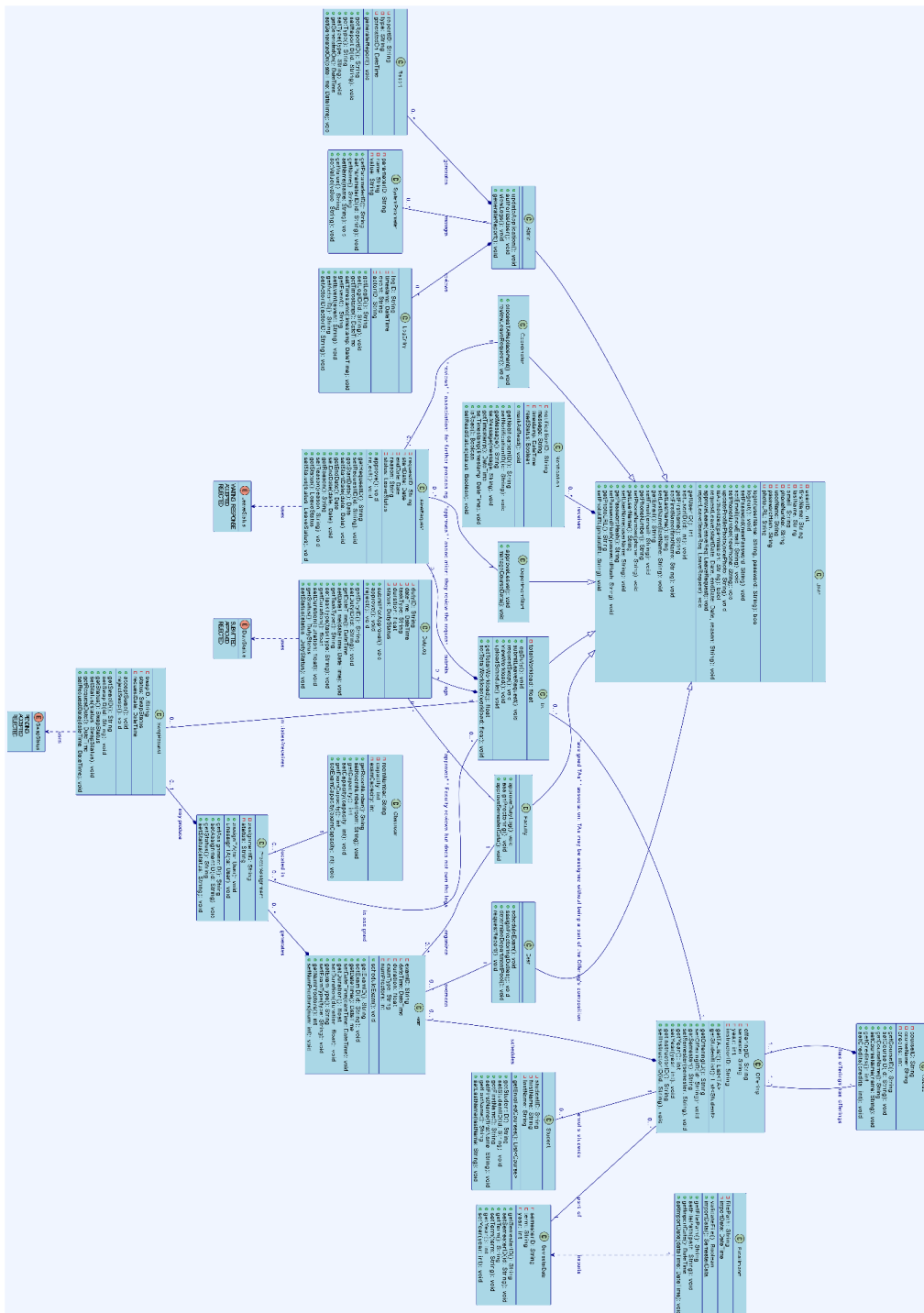
3.3 Report Request State Diagram



3.4 Leave Request State Diagram



4. Class Diagram



¹ See the Deliverable 2 folder in our Github for a high resolution class diagram.

5. Non-Functional Requirements

Quality Requirements:

5.1 Usability:

- TAs, faculty, department chairs, and admins should be able to access any key functionality (such as TA duty logging, proctoring assignments, or leave requests) within 3 clicks from the main dashboard, ensuring a smooth and intuitive user experience.

5.2 Reliability:

- In case of a system failure or crash, no data should be lost. The system must implement automated backups (daily or at least weekly) to enable full data recovery within 30 minutes.

5.3 Performance:

The application must support a range of device screen sizes: mobile devices (minimum 320x480 pixels), tablets (600x800 pixels), and desktops (1280x720 pixels or higher), ensuring a responsive design.

All pages and dashboards should load within 3 seconds under normal operating conditions.

The backend must handle at least 100 simultaneous requests—especially during peak periods when multiple TAs and faculty members interact with the system.

Critical backend operations (such as TA duty submissions or proctoring updates) should have response times under 2000 milliseconds.

Constraints or Pseudo Requirements:

5.4 Implementation:

- The system must be compatible with modern web browsers, including the latest versions of Chrome, Firefox, Safari, and Microsoft Edge.
- The TA MANAGEMENT SYSTEM is to be built using the specified technology stack: Spring Boot for the backend, React for the frontend, and MySQL for the database. It should run on Linux servers with Apache2.

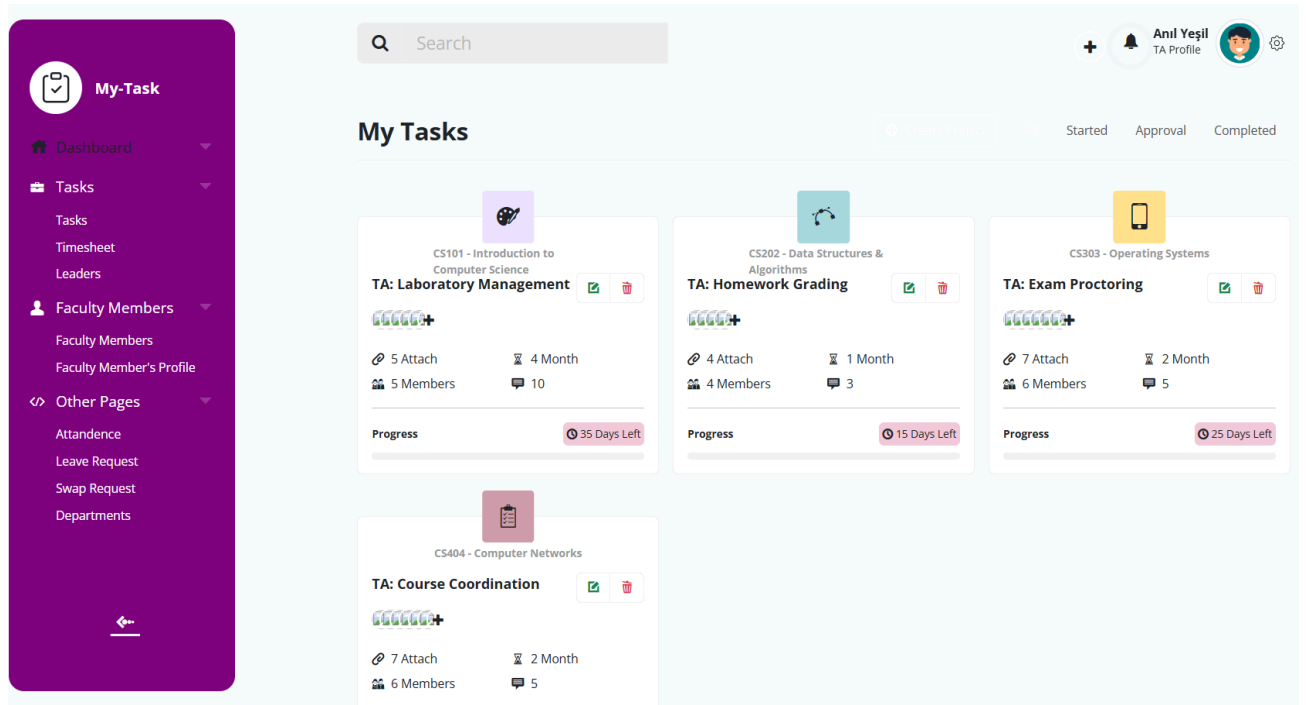
5.5 Legal:

A cookie consent banner must be displayed to obtain user consent before storing any non-essential cookies.

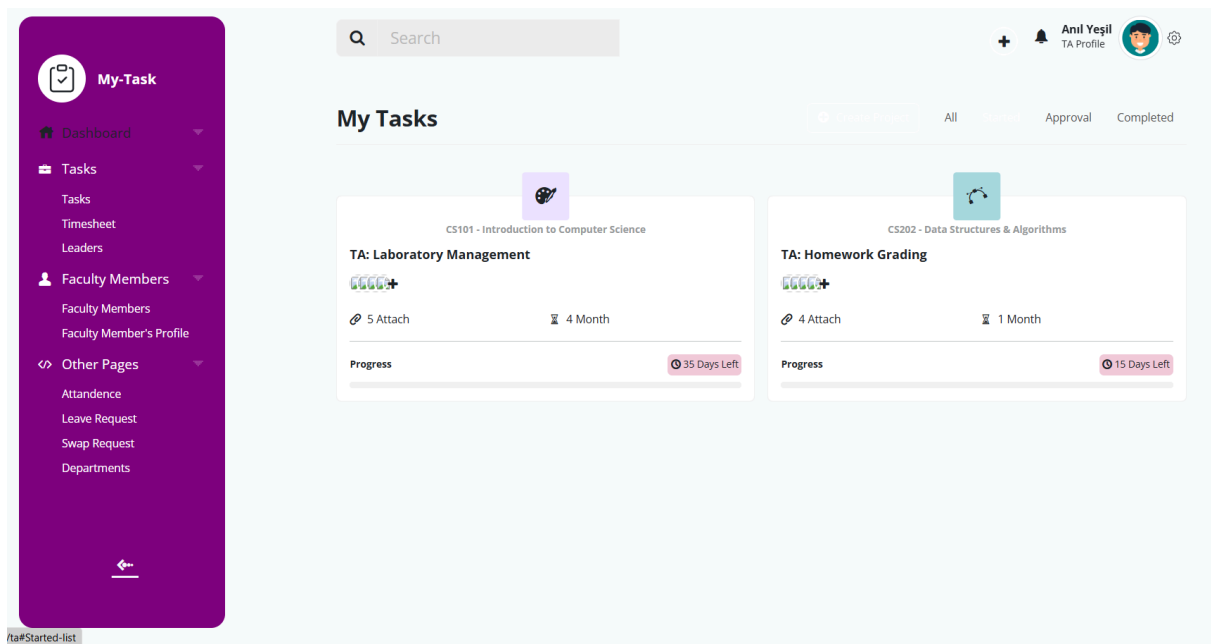
The application must comply with GDPR and other relevant data protection regulations by allowing users to request data deletion and providing clear information regarding data usage.

6. Mock-Up Screens

6.1 Home Dashboard:



6.2 Tasks for Situations for Started, Approval, Completed:



6.3 Team Leaders Page:

My-Task

Dashboard

Tasks

Tasks

Timesheet

Leaders

Faculty Members

Faculty Members

Faculty Member's Profile

Other Pages

Attendance

Leave Request













Swap Request

Departments

Search

Anıl Yeşil
TA Profile

Team Leaders

LEADER NAME	PROJECT	TOTAL TASK	EMAIL	PROJECT ASSIGNED	ASSIGNED STAFF	STATUS	ACTIONS
 Begüm Çınar	Distributed Systems	5 Task	begum.cinar@bilkent.edu.tr	23/02/23		Working	 
 Eray Tüzün	Computer Networks	8 Task	eraytuzun@bilkent.edu.tr	14/04/23		Working	 
 Selim Aksoy	Artificial Intelligence	2 Task	saksoy@bilkent.edu.tr	18/03/23		Working	 

6.4 Employee - People Page:

My-Task

Dashboard

Tasks

Tasks

Timesheet

Leaders

Faculty Members

Faculty Members

Faculty Member's Profile

Other Pages

Attendance

Leave Request


Swap Request

Departments


Search

Anıl Yeşil
TA


Employee




Cankutay Dünder
TA
Responsible for assisting in teaching, supporting professors, and facilitating student learning experiences.
10 12




Deniz Öztürk
Faculty Member
Experienced in academic research, curriculum development, and student mentorship.
8 9



Barkın Baydar
Dean
Provides visionary leadership, oversees academic programs, and ensures excellence in education and research.
7 10



Anıl Yeşil
TA
Manages administrative operations and supports daily departmental functions to ensure a seamless academic environment.
6 11



Emre Uçar
Faculty Member

11

6.4 Employee Profile Page:

My-Task

Dashboard

Tasks

Timesheet

Leaders

Faculty Members

Other Pages

Attendance

Leave Request


Swap Request

Departments

Search

Anıl Yeşil
TA

Employee Profile



Cankutay Dündar
Cs102 Tutor
Evaluating assignments, labs, and quizzes while providing constructive feedback to help students improve.
+90 0538 036 0365
07/01/2003
cankutay.dundar@ug.bilkent.edu.tr
Bilkent 81/82. Dormitory

Third Year Computer Science Student
Employee Id : Z2103284

Current Work Project

Lab Work

5 Attach
5 Members
4 Month
10
Progress 35 Days Left

TA Homework Grading

3 Attach
3 Members
2 Month
5
Progress 20 Days Left

6.5 Departments Page:

My-Task

Dashboard

Tasks

Timesheet

Leaders

Faculty Members

Other Pages

Attendance

Leave Request













Swap Request

Departments

Search

Anıl Yeşil
TA

Departments

#	DEPARTMENT HEAD	DEPARTMENT NAME	EMPLOYEE UNDERWORK	ACTIONS
1	 Cankutay Dündar	Computer Engineering	40	 
2	 Deniz Öztürk	Electrical and Electronics Engineering	48	 
3	 Yarkın Baydar	Industrial Engineering	15	 
4	 Anıl Yeşil	Mechanical Engineering	39	 

6.6 Leave - Swap Request Page:

The screenshot shows the 'Leave Request' page. On the left is a purple sidebar with a 'My-Task' section containing links to Dashboard, Tasks, Timesheet, and Leaders. Below this are 'Faculty Members' and 'Other Pages' sections. The main content area has a search bar at the top. Below the search bar is the 'Leave Request' title and a 'New Request' button. A table displays two leave requests:

EMPLOYEE ID	EMPLOYEE NAME	LEAVE TYPE	FROM	TO	REASON	ACTIONS
#EMP : 00001	Deniz Öztürk	Medical Leave	12/03/2021	14/03/2021	Medical Check-up	<input checked="" type="checkbox"/> <input type="checkbox"/>
#EMP : 00038	Barkın Baydar	Casual Leave	11/04/2021	12/04/2021	Going to Holiday	<input checked="" type="checkbox"/> <input type="checkbox"/>

6.7 Attendance Page:

The screenshot shows the 'Attendance (Admin)' page. The sidebar is identical to the previous page. The main content area has a search bar at the top. Below the search bar is the 'Attendance (Admin)' title and a 'New Attendance' button. A legend at the top indicates: ☒ Full Day Present, ☐ Half Day Present, and ☐ Full Day Absence. Below the legend is a table showing attendance for 'Joan Dyer' over 24 days:

EMPLOYEE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Joan Dyer	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>												

6.8 Leave Request Page:

My-Task

Dashboard

Tasks

Tasks

Timesheet

Leaders

Faculty Members

Faculty Members

Faculty Member's Profile

Other Pages

Attendance

Leave Request

Swap Request

Departments

Search

Leave Request

EMPLOYEE

#EMP : 00

#EMP : 00

Leave Add

Select Leave type

Medical Leave

Leave From Date

gg.aa.yyyy

Leave to Date

gg.aa.yyyy

Leave Reason

Done

TO	REASON	ACTIONS
14/03/2021	Going to Holiday	<div></div> <div></div>
12/04/2021	Going to Holiday	<div></div> <div></div>

6.9 Add Department Page:

My-Task

Dashboard

Tasks

Tasks

Timesheet

Leaders

Faculty Members

Faculty Members

Faculty Member's Profile

Other Pages

Attendance

Leave Request

Swap Request

Departments

Search

Departments

#

DEPARTMENT HEAD

1

2

3

4

Cankutay Dünda

Deniz Öztürk

Yarkın Baydar

Anıl Yeşil

Department Add

Department Name

Department Head

Employee UnderWork

Done

Add

EMPLOYEE UNDERWORK

40

48

15

39

ACTIONS

6.10 Edit Department Page:

The screenshot shows the 'Edit Department' page. On the left is a purple sidebar with a 'My-Task' icon and a list of navigation items: Dashboard, Tasks, Tasksheet, Leaders, Faculty Members, Faculty Members, Faculty Member's Profile, and Other Pages. The main content area has a search bar at the top right with the text 'Search'. Below it is the 'Departments' section. A table lists departments with columns: #, DEPARTMENT HEAD, DEPARTMENT NAME, EMPLOYEE UNDERWORK, and ACTIONS. The table has four rows. The first row is highlighted. A 'Department Edit' modal is open over the first row, showing fields for 'Department Name' (Computer Engineering), 'Department Head' (Selim Aksoy), and 'Employee UnderWork' (40). The modal has 'Done' and 'Save' buttons. The table data is as follows:

#	DEPARTMENT HEAD	DEPARTMENT NAME	EMPLOYEE UNDERWORK	ACTIONS
1	Cankutay T	Computer Engineering	40	[Check] [Delete]
2	Deniz Öztürk		48	[Check] [Delete]
3	Yarkın Bay		15	[Check] [Delete]
4	Anıl Yeşil		39	[Check] [Delete]

6.11 Add Employee Page:

The screenshot shows the 'Add Employee' page. On the left is a purple sidebar with a 'My-Task' icon and a list of navigation items: Dashboard, Tasks, Tasksheet, Leaders, Faculty Members, Faculty Members, Faculty Member's Profile, and Other Pages. The main content area has a search bar at the top right with the text 'Search'. Below it is the 'Employee' section. A 'Add User' modal is open, showing fields for 'User Name', 'User Department', 'User ID', 'User Email', 'User Phone', 'Department', and 'Description (optional)'. The modal has 'Done' and 'Create' buttons. To the right of the modal are two employee profiles: 'Deniz Öztürk' (Faculty Member) and 'Anıl Yeşil' (TA). Below the modal is a profile for 'Emre Uçar' (Faculty Member).

Deniz Öztürk
Faculty Member
Experienced in academic research, curriculum development, and student mentorship.

Anıl Yeşil
TA
Manages administrative operations and supports daily departmental functions to ensure a seamless academic environment.

Emre Uçar
Faculty Member

6.12 Add Event to Calendar Page:

The screenshot shows the 'Add Event' modal in the calendar application. The modal is open over the calendar view for March 2025. The modal contains the following fields:

- Event Name:** A text input field.
- Event Images:** A section with a 'Dosya Seç' button and a 'Seçilen dosya yok' message.
- Event Start Date:** A date picker showing 'gg.aa.yyyy'.
- Event End Date:** A date picker showing 'gg.aa.yyyy'.
- Event Description (optional):** A text area with the placeholder 'Add any extra details about the request'.

At the bottom of the modal are 'Done' and 'Create' buttons. The background calendar shows events for March 2025, including 'Long Event', '7a Birthday Party', '4p Repeating Event', 'All Day Event', 'Conference', '10:30a Meeting', and '12p Lunch'.

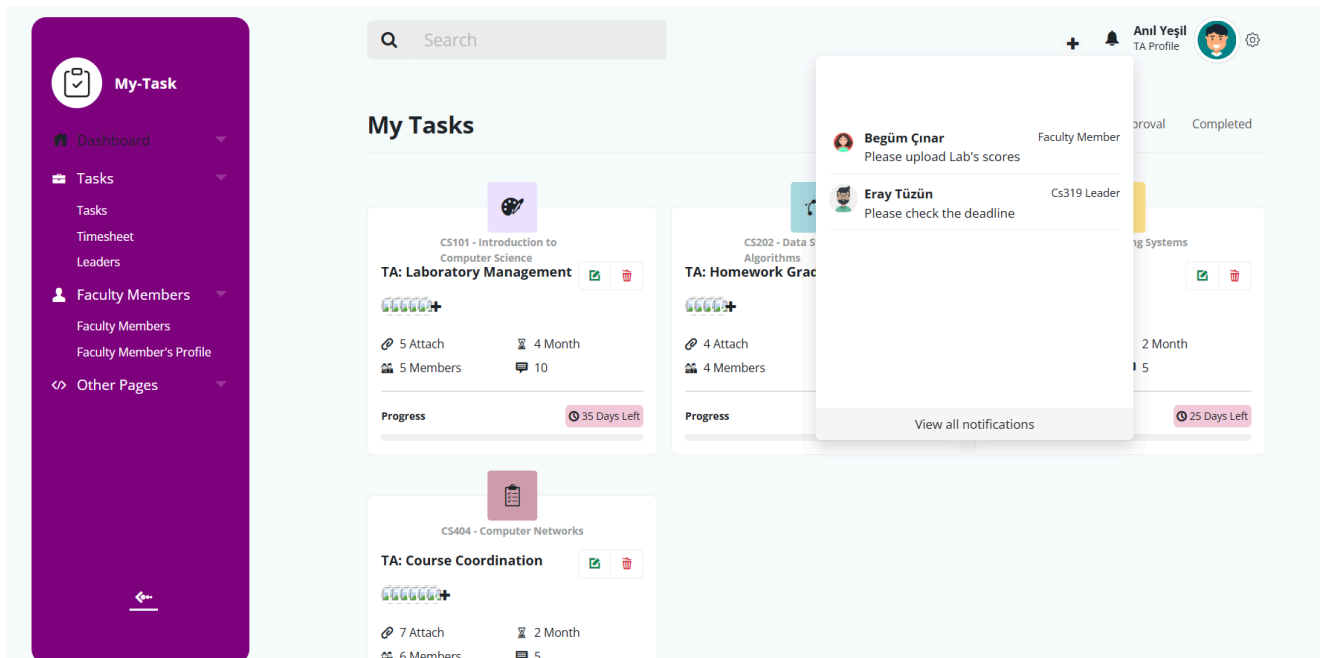
6.13 Calendar Page:

The screenshot shows the calendar application interface. On the left is a purple sidebar with the following menu items:

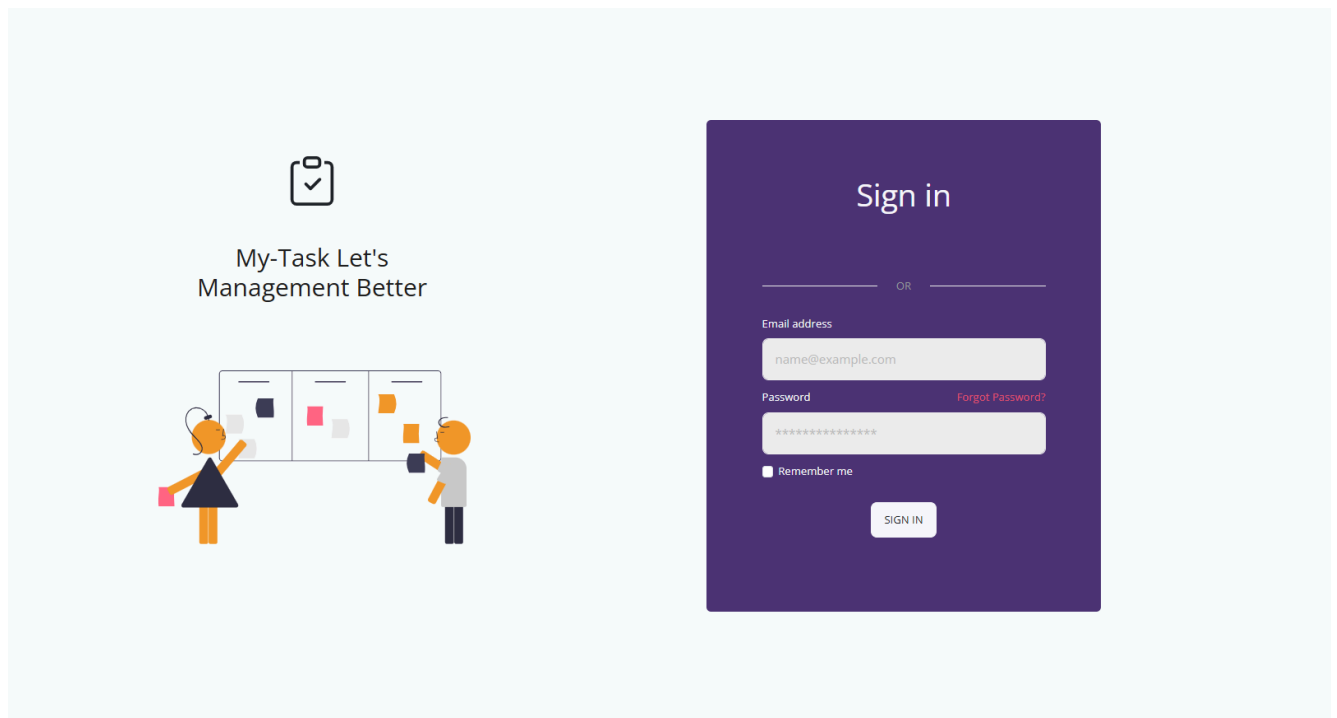
- My-Task
- Dashboard
- Tasks
- Timesheet
- Leaders
- Faculty Members
- Faculty Members
- Faculty Member's Profile
- Other Pages
- Attendance
- Leave Request
- Swap Request
- Departments

The main area displays the calendar for March 2025. The calendar shows events for the month, including 'Long Event', '7a Birthday Party', '4p Repeating Event', 'All Day Event', 'Conference', '10:30a Meeting', and '12p Lunch'. The top right of the calendar shows the user's profile 'Anıl Yeşil' and a 'TA Profile' link.

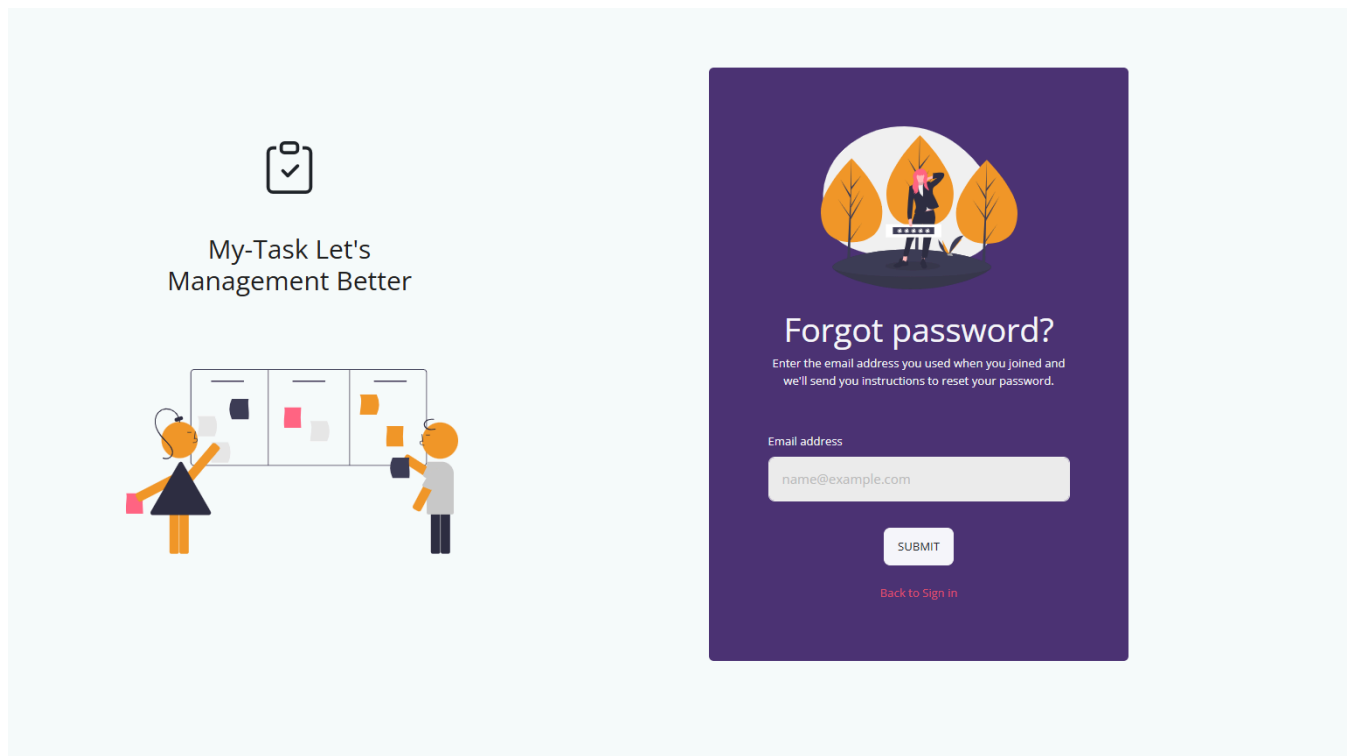
6.14 Notification Part:



6.15 Sign in Page:



6.16 Forgot Password Page:



6.17 Account Verification Page:

