



Bilkent University

Department of Computer Engineering

CS 319 Term Project

ErasmusNET

Group 3F

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Analysis Report

December 11, 2022

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1 Introduction

Our project's purpose is to create a web based Erasmus manager for outgoing and incoming students, instructors and Erasmus coordinators to use. Our main goal is to make every part of this procedure easier by just making our project the only platform for students to apply for Erasmus and for coordinators to deal with every problem in one place. With this project, students can make an appointment with the coordinators, coordinators can easily see and approve all the outgoing students' pre approval form in one place, without the risk of having the pre approval forms being lost in the hundreds of mails sent to coordinators. Students can send new syllabus for a course that was not approved before and the instructors can approve or reject based on the course they are giving in Bilkent.

2 Current System

Currently Bilkent University and the partner university's staff are using the <https://app.erasmus.bilkent.edu.tr/> website for the Erasmus and Exchange application process. Each Bilkent student has their Erasmus grade based on their cGPA and their ENG 101-102 grades which they can see on the website. Outgoing students can apply to Erasmus or Exchange by first uploading their documents which include their CV, application form and statement of purpose. They also need to upload their contact information. After that, students make a list of a maximum of five universities that they prefer to study in, also considering their Erasmus grade. At this stage the students also should state their preferred semester (fall/spring) and duration (one or two semesters). After this, students wait for the announcement of the placements. The placements are made according to each student's Erasmus grades; the student with the highest grade is placed first, the second highest graded student is placed second etc. Currently, this process is done manually by department exchange coordinators. After the placement is done, the information of whether the student's application is accepted or rejected is uploaded to the system. After that, if the student is accepted to one of his/her preferences and wants to go, he/she looks at the partner university's offered courses to see whether there are similar courses corresponding to the courses at Bilkent University. If the student finds such courses, he discusses with the instructors in Bilkent to see whether the courses he/she wants to take in the partner university actually correspond to the courses he/she would normally take in Bilkent. All these discussions are done without the use of the website; either by email or face-to-face. When the discussions are done, the student makes a pre-approval form and sends them to the departmental coordinators and the coordinators approve or reject the form. The website is not used throughout the pre-approval form process or the rest of the application process.

3 Proposed System

3.1 Overview

The proposed system ErasmusNET will be used as the main application for managing the application process of exchange programs. ErasmusNET will help students, coordinators and the international office by reducing the need for paper forms. Application, placement and pre-approval stages will be handled inside our

application. In addition, the students, coordinators and international office workers can create appointments inside our application without using email. In the Proposed System section of our report, we will be presenting the functional requirement, non-functional requirements, pseudo requirements and the system models.

3.2 Functional Requirements

3.2.1. Incoming Students

- **Registration Lists:** Incoming students can list the courses they would like to take during that semester.
- **Registration Appointment:** Incoming students can meet with coordinators to discuss their registration lists.

3.2.2. Outgoing Students

- **Syllabus Database:** A course that will be taken in Erasmus must be approved by Bilkent instructors. To make this job easier, students can find and upload the syllabus of a relevant course to the database and book an appointment with the appropriate course instructor. If the instructor approves a class, it is added to the database. The students can browse the database for previously approved courses.
- **Appointments:** Outgoing students can book appointments with coordinators to evaluate their pre-approval form or get their curriculum approved.
- **Course Counting:** Rather than e-mailing or submitting a form, outgoing students can match the courses in the Bilkent curriculum and the courses in their Erasmus schools with the help of the syllabus database.
- **Profile:** The profile page will include contact information for the student. If a student views their page, they can see the application status of their ongoing Exchange or Erasmus applications.
- **Calendar:** Outgoing students can view upcoming due dates for Erasmus applications and their appointments on a calendar.

3.2.3. Internal Coordinator

- **Interview Tool:** Coordinators can send out face-to-face, or online interview invites to selected students as well as cancel or change the time and the date of the interview.
- **To-Do List:** Coordinators can see a “to-do list” for the tasks they are supposed to complete, such as approving or disapproving applications and sending emails to external coordinators.
- **Student View:** Bilkent coordinators can see the list of all students who applied to Erasmus before and the list of students currently studying abroad.

3.2.4. External Coordinator

- **Student Information:** External coordinators can upload student information to the website and view other data for coordinators.

3.3 Non-functional Requirements

- **Performance:** Performance of the system should be relatively close to the majority of the websites. However, the system's performance shouldn't be expected to be at millisecond scale.
- **Usability:** Front-end of the system should have relatively intuitive UI and UX since target actors are mostly non-technical.
- **Reliability:** System should work as expected at all times on all axes. This is an essential requirement since reliability issues may cause significant delays or issues.
- **Security:** System must be secure and well-protected. System will contain sensitive user data such as national identity details, passport and visa details, cv, transcript, and bank account details.
- **Scalability:** This is not a strict requirement most of the time since user count will be relatively small. However, the system should be able to handle large application submissions especially near application deadlines.
- **Maintainability:** System should be easy to maintain with minimal effort.
- **Deployability:** System should be easy to deploy since the customer is not the developer of the system.
- **Extensibility:** System should allow trivial changes with minimal effort.

3.4 Pseudo Requirements

1. React will be used in the frontend since it is a well-known and well-documented framework.
2. Google Firebase will be used as a database to store user data.
3. Git will be used as a version control system. Github will store the codebase.

3.5 System Models

3.5.1 Use-Case Model

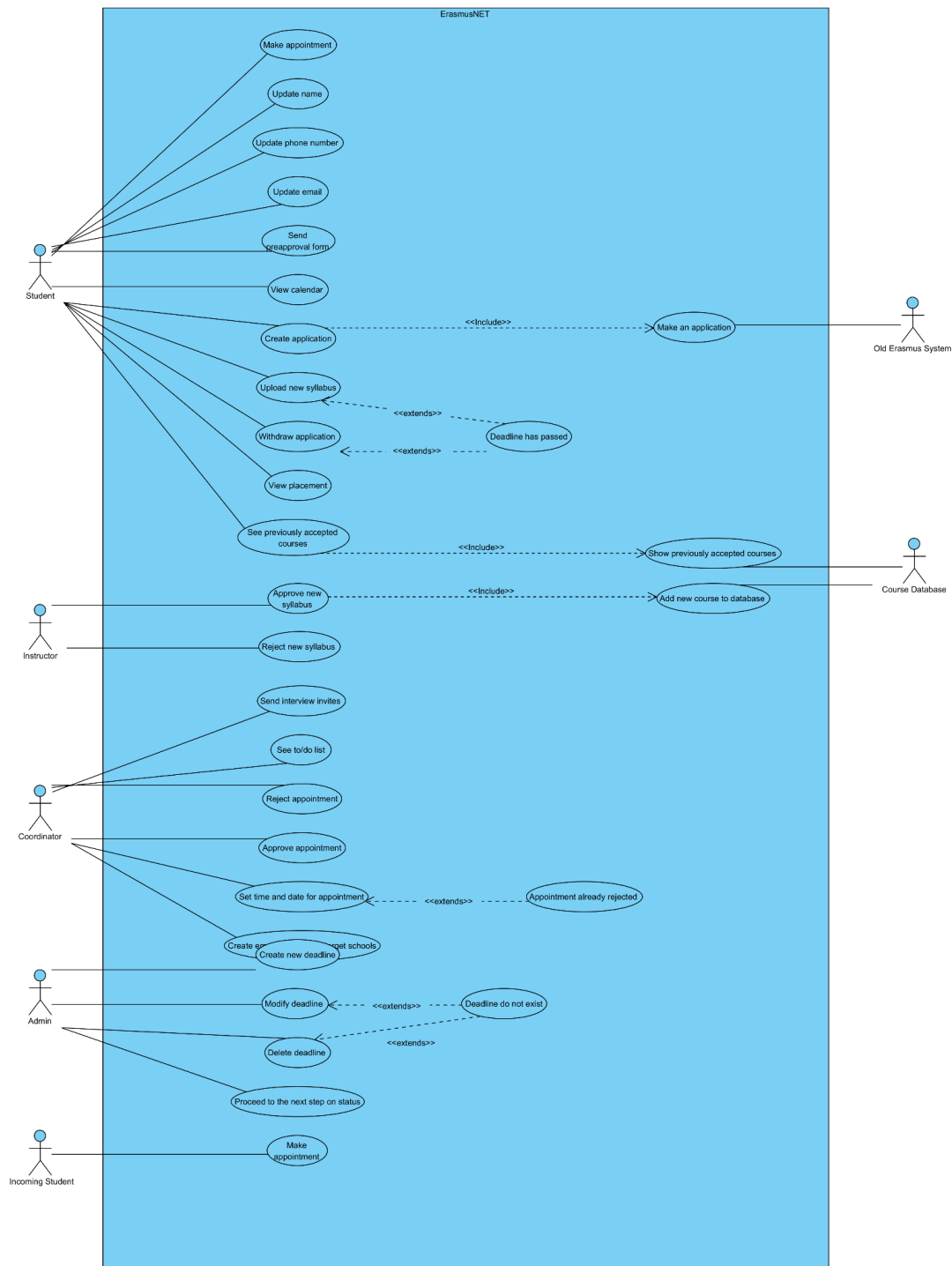


Figure 1: Use Case Diagram for ErasmusNET

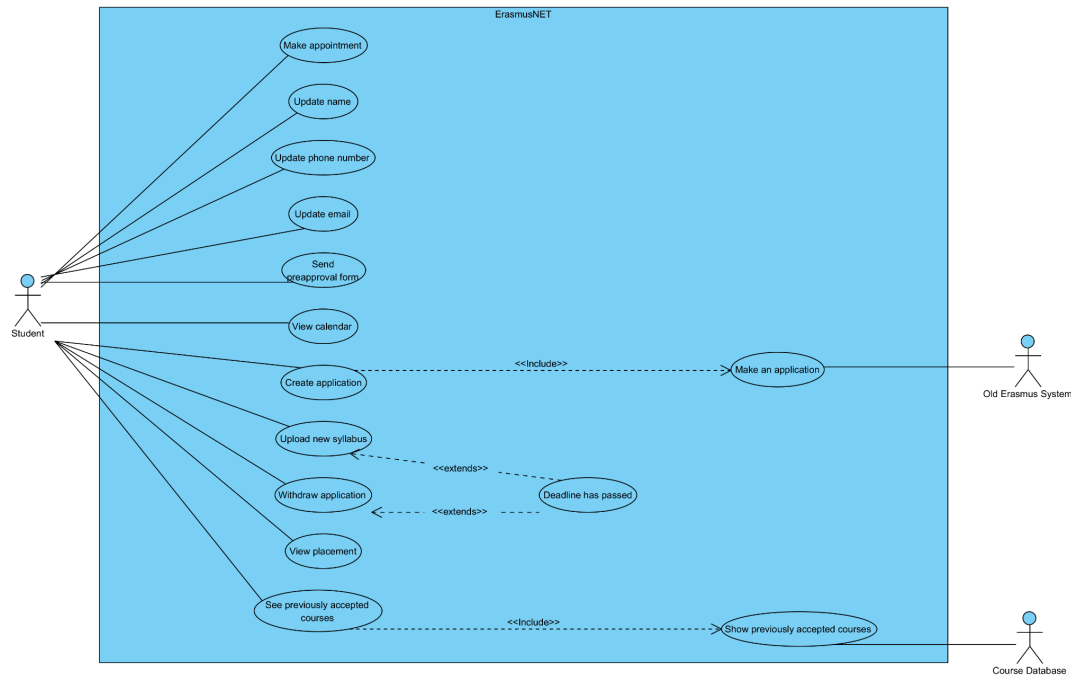


Figure 2: Student Use Case Diagram

Upload New Syllabus

- Participating actors: Student, Instructor
- Entry condition: Student is got accepted and the the course has not been approved before, the course has not been approved in the previous years.
- Exit condition: Student successfully uploads and gets the syllabus approved.
- Flow of events:
 1. Student uploads the Erasmus school's syllabus.
 2. Instructor that is responsible for that course's Bilkent equivalent course looks at the syllabus.
 3. Instructor rejects or approves the syllabus

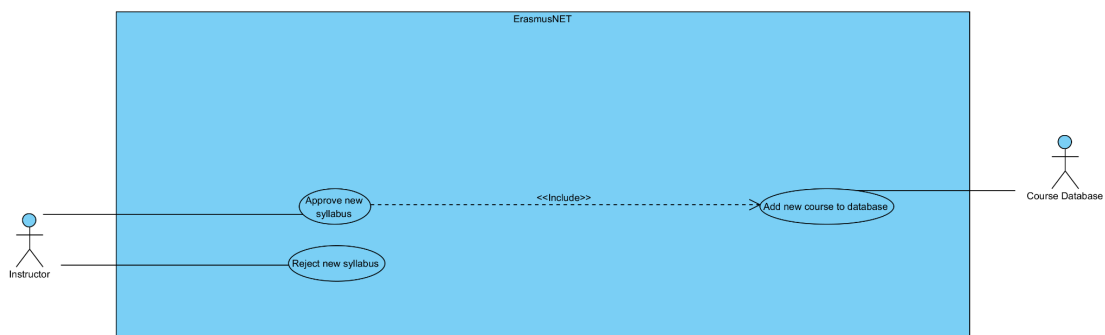


Figure 3: Instructor Use Case Diagram

Approve New Syllabus

- Participating actors: Student, Instructor, Course Database

- Entry condition: At least one student had uploaded at least one new syllabus to the system.
- Exit condition: Instructor gives feedback to the course.
- Flow of events:
 1. Student uploads the syllabus to the system.
 2. Instructor evaluates the syllabus of the course in terms of equivalency of the course in Bilkent.
 3. If the instructor accepts the course as the equivalent of the course they are giving, the course is going to be added to the course database.

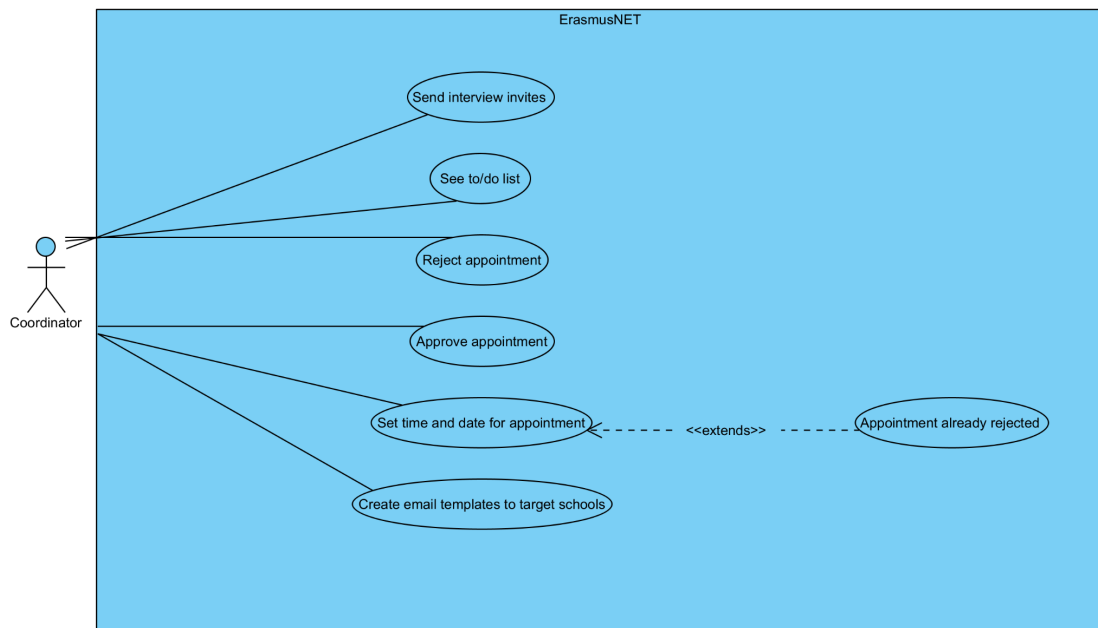


Figure 4: Coordinator Use Case Diagram

Set Time and Date for Appointment

- Participating actors: Coordinator
- Entry condition: A student has to have created an appointment to the coordinator, coordinator had already accepted the appointment with the student.
- Exit condition: Coordinator successfully sets the time and date
- Flow of events:
 1. Student makes an appointment to the coordinator.
 2. If the coordinator accepts the appointment, they have to propose a time and date for this appointment.
 3. The information about the appointment is sent to the student.

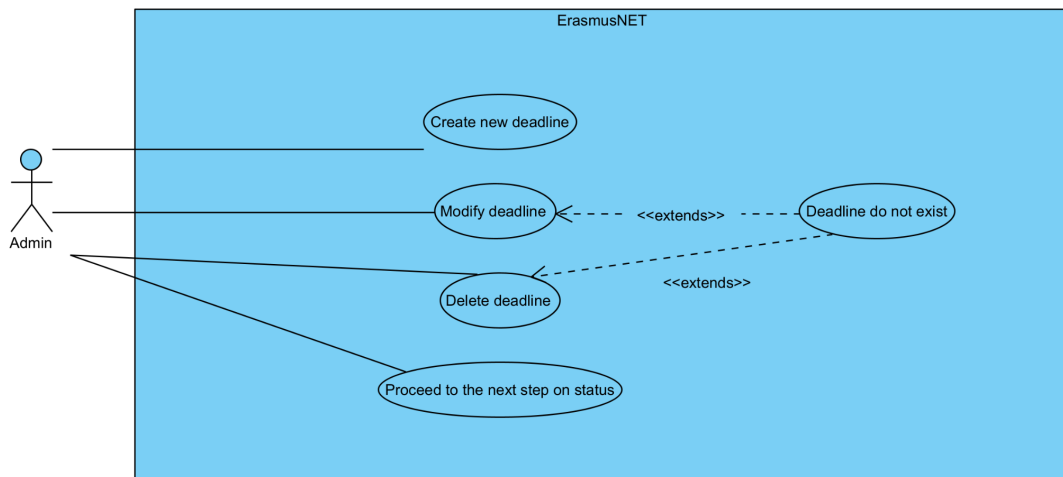


Figure 5: Admin Use Case Diagram

Modify Deadline

- Participating actors: Admin
- Entry condition: A deadline has to already exist
- Exit condition: Admin successfully modifies the deadline
- Flow of events:
 1. Admin chooses the deadline to modify.
 2. Admin modifies the deadline's information.

3.5.2 Object and Class Model

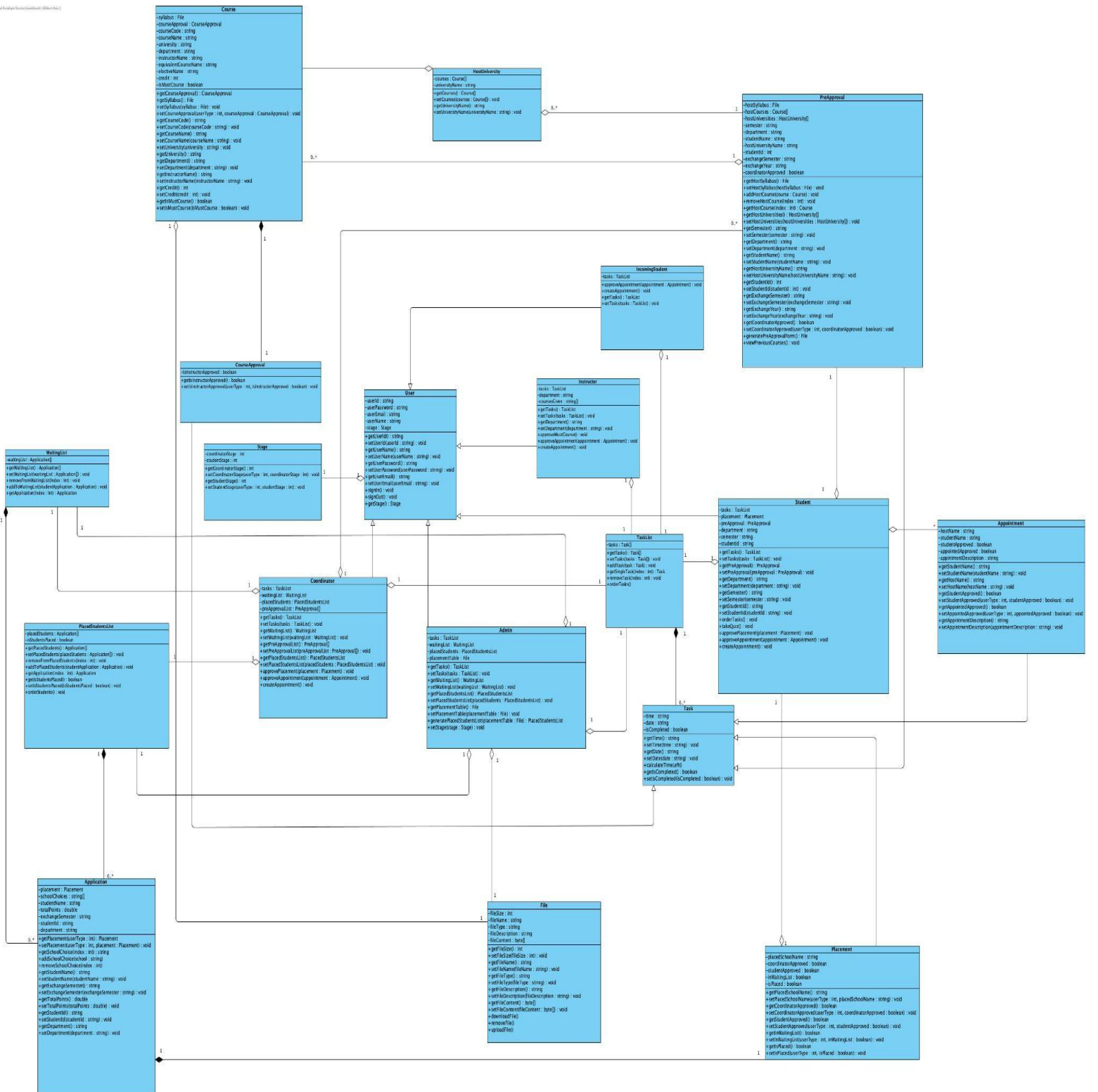


Figure 6: The Class Diagram

The class diagram of ErasmusNET is given in the figure above. In our class diagram there are 18 classes. In this UML class diagram, the relationship between actor classes and event item classes are modeled.

User Class: This is an abstract class. User class is the superclass of Coordinator, Student, Admin, Incoming Student and Instructor. 1 User class has 1 Stage class for accessing the current stage of the exchange application process.

TaskList Class: This is a wrapper class for holding Task classes. 1 TaskList class has 0 to many Task classes.

WaitingList Class: This is a wrapper class for holding Application classes. This class represents the waiting bin for student applications. 1 WaitingList class has 0 to many Application classes.

PlacedStudentsList Class: This is a wrapper class for holding Application classes. This class represents the placed students. 1 PlacedStudentsList class has 0 to many Application classes.

CourseApproval Class: This class is the subclass of Task class. This class is for the approval of must courses done by the instructors.

Instructor Class: This class is the subclass of the User class. An Admin class has 1 to many Application classes and 1 to many Task classes.

HostUniversity Class: This class is for viewing the old courses that are approved. A HostUniversity class has 1 to many Course classes.

Task Class: This is an abstract class. Task class is the superclass of Application, Placement and Appointment. This class is used for listing tasks for the Coordinator and International Office class.

Student Class: This class is the subclass of the User class. A Student class has only one Placement class, one PreApproval class and only one TaskList class.

IncomingStudent Class: This class has 1 TaskList class. This class represents the incoming student that are using the system.

Admin Class: This class is the subclass of User class. An Admin class has 1 File class that is the placement excel table. Admin is tasked with uploading the excel table and generating WaitingList and PlacedStudentsList classes according to that

excel file. An Admin class has 1 WaitingList class, 1 PlacedStudentsList class and 1 TaskList class. An admin is also tasked with changing the Stage class for updating the stage of the exchange program.

Coordinator Class: This class is the subclass of User class. A Coordinator class has 1 WaitingList class, 1 PlacedStudentsList class, 1 to many PreApproval classes and 1 TaskList class. The Application classes represent each student's application to the exchange program. PreApproval classes represent the PreApproval forms students used to submit. The Task classes are for listing each task the coordinator needs to do according to their due dates.

Application Class: This class is the subclass of Task class. This class is for representing individual applications that are in the placement excel table. An Application class has only one Placement class. An Application class has 1 to many File classes.

Placement Class: This class is the subclass of Task class. This class is for announcing the placed University to the student and handling the approval/disapproval procedures.

PreApproval Class: This class is the subclass of Task class. This class is for handling the PreApproval stage and course counting. A PreApproval class has 1 to many Course classes.

Course Class: This class is for representing the courses that will be counted in PreApproval class.

File Class: This class is for representing the files that are uploaded or generated inside the application, These files can be the application form, the cv of the student, the statement of purpose, or the pre-approval form.

Appointment Class: This class is the subclass of the Task class. Appointment classes are for arranging appointments between a student and coordinators or students and an international office worker.

3.5.3 Dynamic Models

3.5.3.1 Activity Diagram

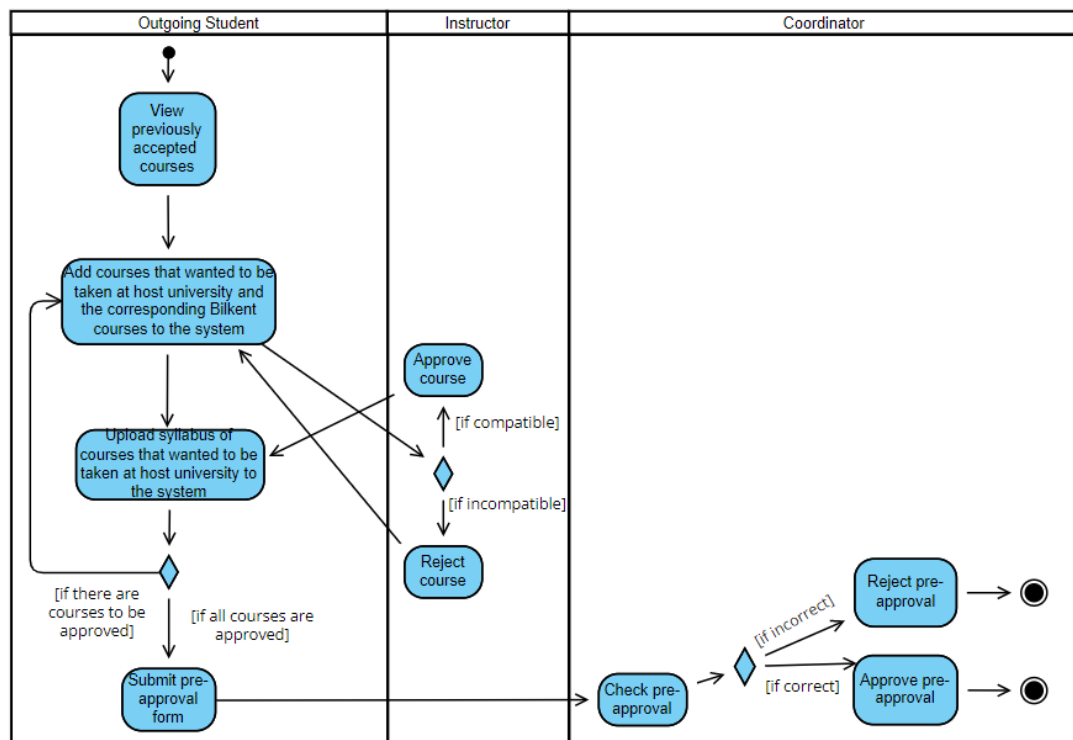


Figure 7: Activity diagram for getting a course approved

Figure 7 depicts the process of getting a course approved using ErasmusNET. The student can see previously accepted courses and can get an idea of the courses he/she wants to take. Then, the student can add courses that he/she wants to take at the host university and the corresponding Bilkent courses to the system. Then the instructors of these courses in Bilkent, view the host university courses from the system and check whether the course is compatible or not. If the course is compatible, they approve the course. Then, the student should upload the syllabi of the courses. If there are still more courses to be approved, the student should again add the course to the system and go through the same process again. However, if the course is rejected, then the student should add a new course that is compatible with the course in Bilkent. After all of the student's courses are approved, the students submits the pre-approval form and the exchange coordinator checks the form to see whether it is in the correct form and whether the student got the correct courses approved. If the pre-approval form is correct, the coordinator approves it, and the pre-approval process is done, otherwise the coordinator rejects the form and the student should go through the process again.

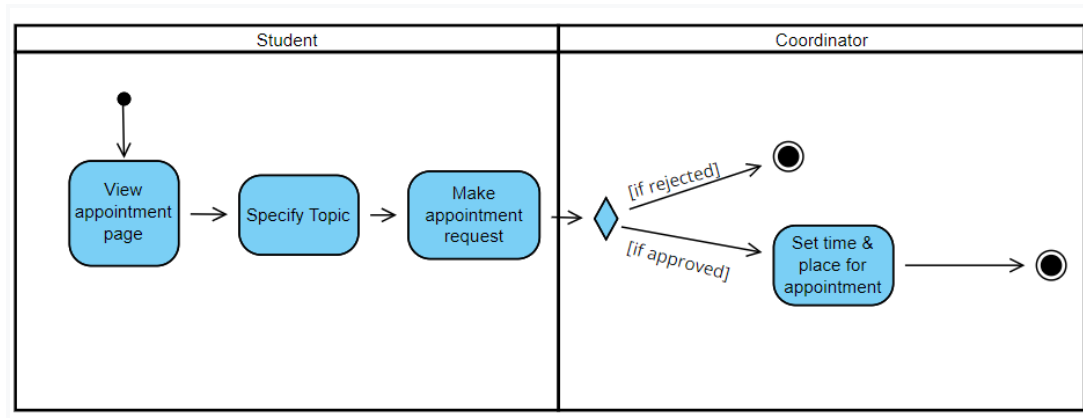


Figure 8: Activity diagram for an appointment request

Figure 8 depicts the process of getting an appointment with an exchange coordinator. The student should first view the appointment page and specify the topic of the appointment. Then, the student should make an appointment request. The coordinator can approve or reject this request. If the coordinator approves the request, he/she should set the time and place for appointment and then the process is done. The students do not have the option to reject the appointment time and place that is set by the coordinator. The coordinator can also reject the appointment request, then the process is done and the student can make a new appointment using the same procedure if he/she wants to.

3.5.3.2 Sequence Diagrams

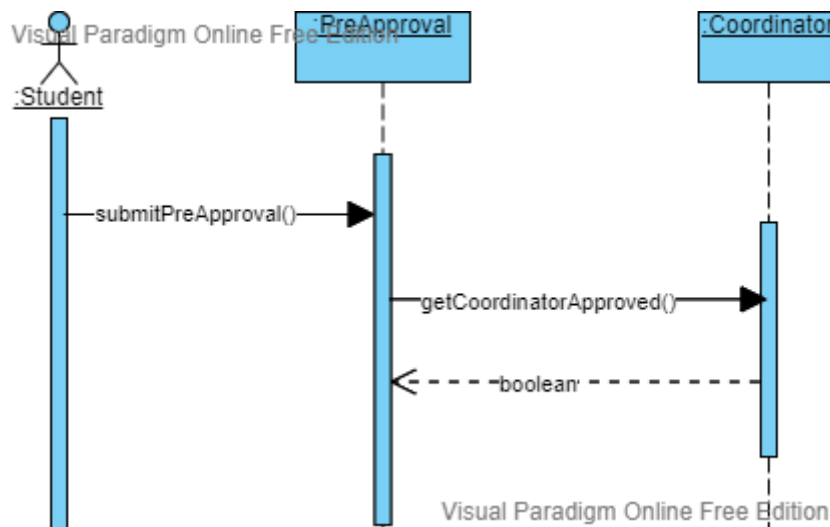
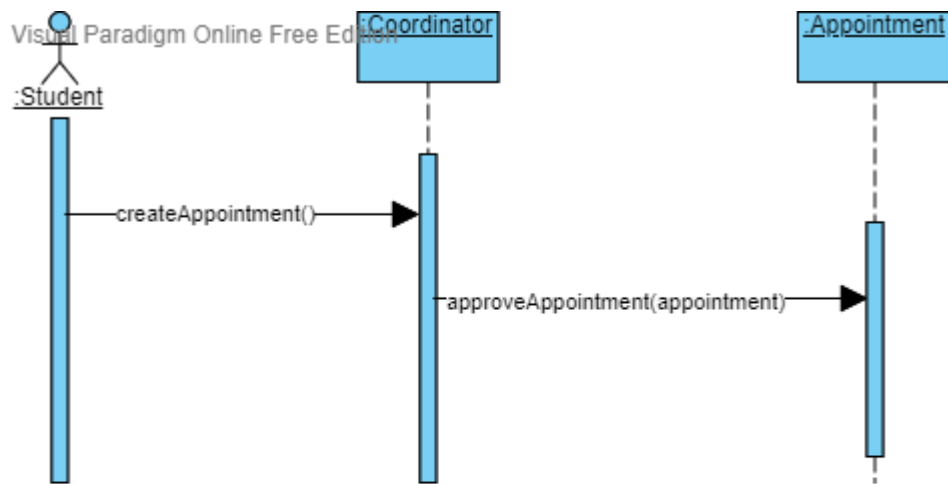


Figure 9: Sequence diagram for an outgoing student's course approval process

To get courses approved, a student can submit a pre-approval form by the `submitPreApproval()` method. If the coordinator approves the pre-approval form, the method returns true, otherwise, it returns false.



Visual Paradigm Online Free Edition

Figure 10: Sequence diagram for an outgoing student's successful appointment request

Figure 10 depicts the sequence diagram of making an appointment. First, the student can create an appointment using the createAppointment method. After that, the coordinator can approve the appointment.

3.5.3.3 State Chart

3.5.3.3.1. State Chart for Students' Appointment System

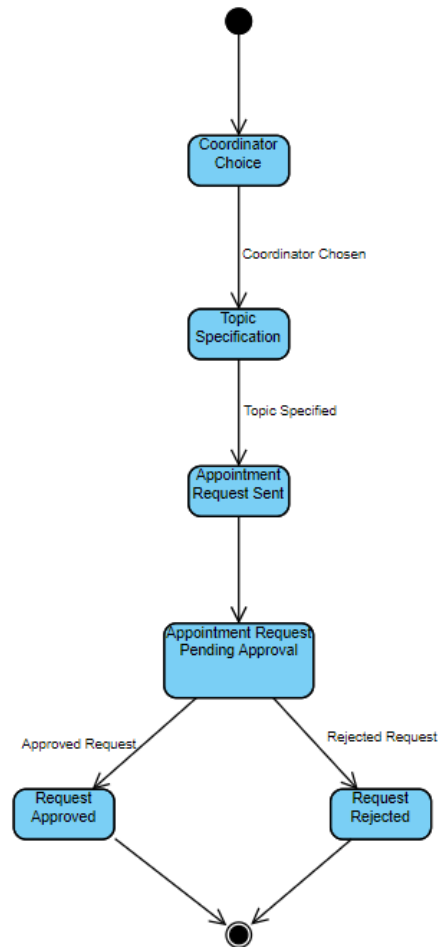


Figure 11: State Diagram Demonstrating the Appointment System for Students

This state diagram demonstrates the system for students to make appointments with coordinators. The first state waits for the students to specify the coordinator. When the coordinator is selected, the system moves on to the next state, where the appointment request is sent. In the next state, the system pauses until the request is approved or rejected. If the request is approved, the system moves on to the “Request Approved” state and exits the program without suspension. Similarly, if the request is rejected, the system moves on to the “Request Rejected” state and exits the program without a break.

3.5.3.3.2. State Chart for Coordinators’ Appointment System

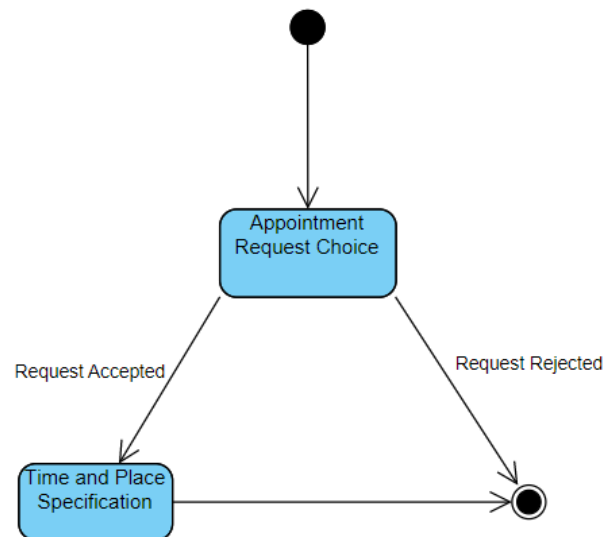


Figure 12: State Diagram Demonstrating the Appointment System for Coordinators

When the coordinator gets a notification for an appointment, the system waits for the coordinator's choice. If the request is accepted, the sys

3.5.4 User Interface

3.5.4.1 Landing Page



Figure 13: Landing Page

This is the landing page of the website. It lets users learn more about the site or continue using it through the login button.

3.5.4.2 Register and Login Page

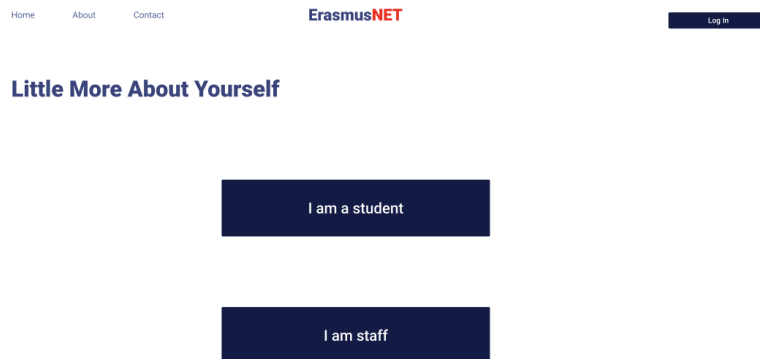


Figure 14: Register and Login Page

In this page, users will select whether they are a student or a staff member. They will be redirected to the relevant page after selecting.

3.5.4.3 Student Dashboard

3.5.4.1 Dashboard

The Dashboard will be the most important part of the website for students. They can see the timeline of the application process, upcoming deadlines and action items for the next step.

3.5.4.4.1 Placement

No action is required from the student until placement results are announced.

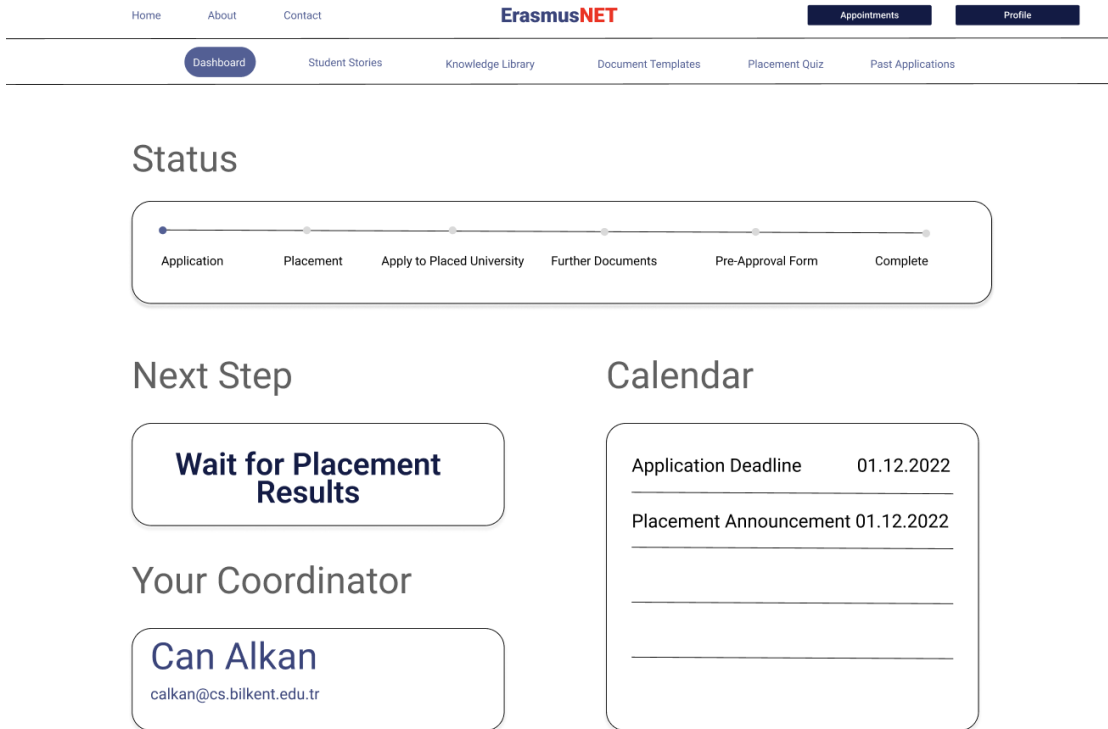


Figure 15: Waiting Placement

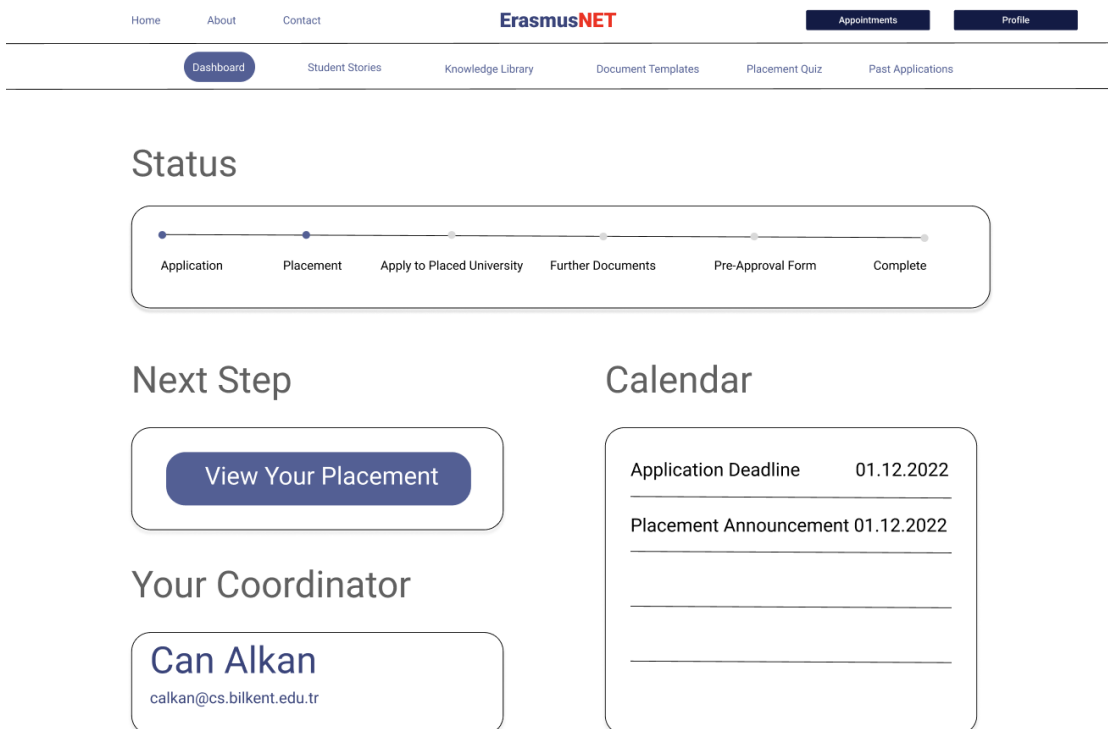


Figure 16: View Placement

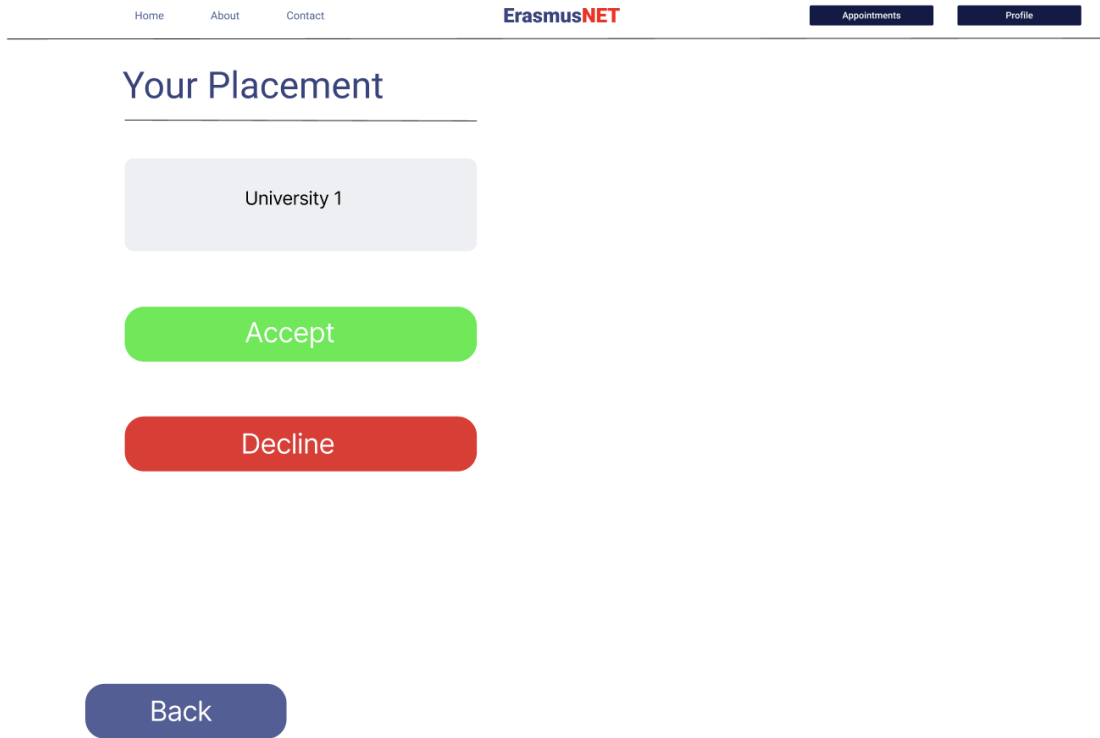


Figure 17: Accept/Decline Placement

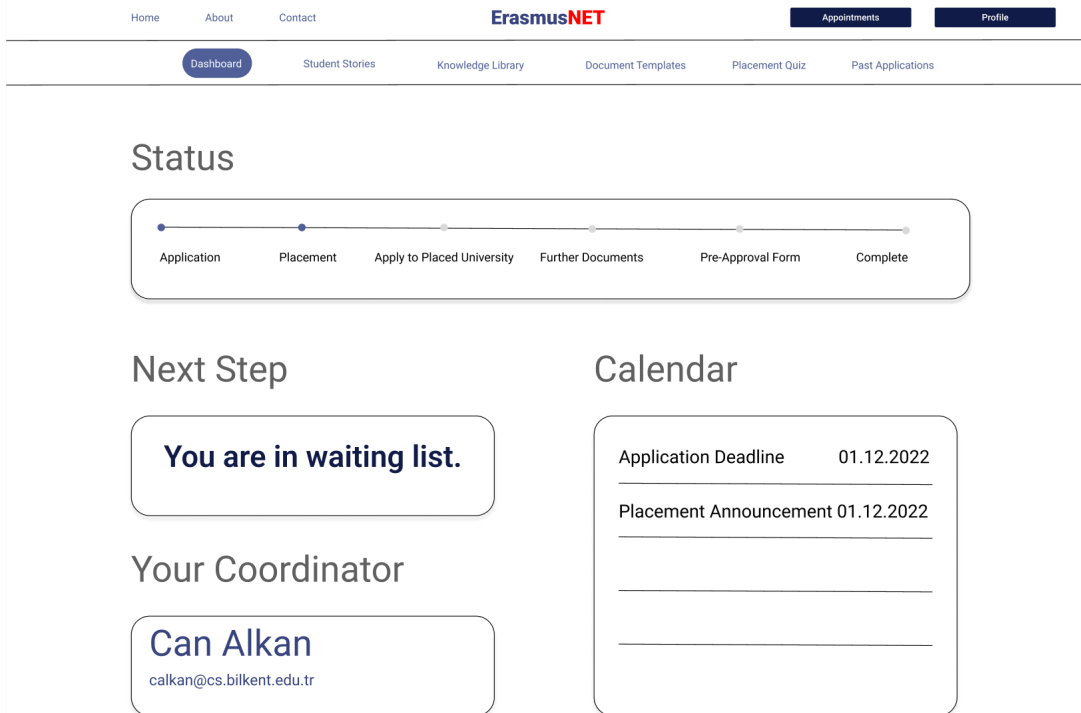


Figure 18: Waiting List Stage

Students will need to accept or decline their placements at this stage. If they decline, they will be removed from the process and the next person in the waiting list will take their place.

3.5.4.4.1.2 Apply to Placed University

Students will apply to the university that they were placed at this stage.

HomeAboutContact

ErasmusNET

AppointmentsProfile

DashboardStudent StoriesKnowledge LibraryDocument TemplatesPlacement QuizPast Applications

Status

ApplicationPlacementApply to Placed UniversityFurther DocumentsPre-Approval FormComplete

Next Step

Wait for Application Link

Your Coordinator

Can Alkan
calkan@cs.bilkent.edu.tr

Calendar

Application Deadline01.12.2022

Placement Announcement01.12.2022

Figure 19: Waiting for an Application Link

HomeAboutContact

ErasmusNET

AppointmentsProfile

DashboardStudent StoriesKnowledge LibraryDocument TemplatesPlacement QuizPast Applications

Status

ApplicationPlacementApply to Placed UniversityFurther DocumentsPre-Approval FormComplete

Next Step

Apply to Placed University

Your Coordinator

Can Alkan
calkan@cs.bilkent.edu.tr

Calendar

Application Deadline01.12.2022

Placement Announcement01.12.2022

Figure 20: Application Link

The button on the above figure will redirect the student to the application page of their university.

3.5.4.4.1.3 Further Documents

Students will provide additional documents and propose their courses at this stage.

Home About Contact ErasmusNET Appointments Profile

Dashboard Student Stories Knowledge Library Document Templates Placement Quiz Past Applications

Status

Application Placement Apply to Placed University Further Documents Pre-Approval Form Complete

Next Step

Provide Documents

Calendar

Application Deadline 01.12.2022
Placement Announcement 01.12.2022

Your Coordinator

Can Alkan
calkan@cs.bilkent.edu.tr

Figure 21: Provide Documents

Home About Contact ErasmusNET Appointments Profile

Course Approvals

Bilkent Course	Erasmus Course	Status	
CS465	1TD388	Approved	View Request
CS476	1DL311	Rejected	View Request

Create Request

Back Next

Figure 22: Accept/Decline Placement

[Home](#)[About](#)[Contact](#)

ErasmusNET

Appointments

Profile

Create Request

Bilkent Course	Bilkent Course Name	Bilkent Instructor	Department
CS465	Computer Graphics	Ugur Gudukbay	CS
Type	ECTS Credits		Add More Course
Technical Elective	6.5		
Erasmus Course Code	Erasmus Course Name	Syllabus	ECTS Credits
1TD388	Computer Graphics	Syllabus.pdf	6.5
			Add More Course

Back

Submit

Figure 23: Providing Documents

Students can propose new courses and see the status of their proposals.

3.5.4.4.1.4 Pre-Approval Form

Students will upload their pre-approval form in this stage.

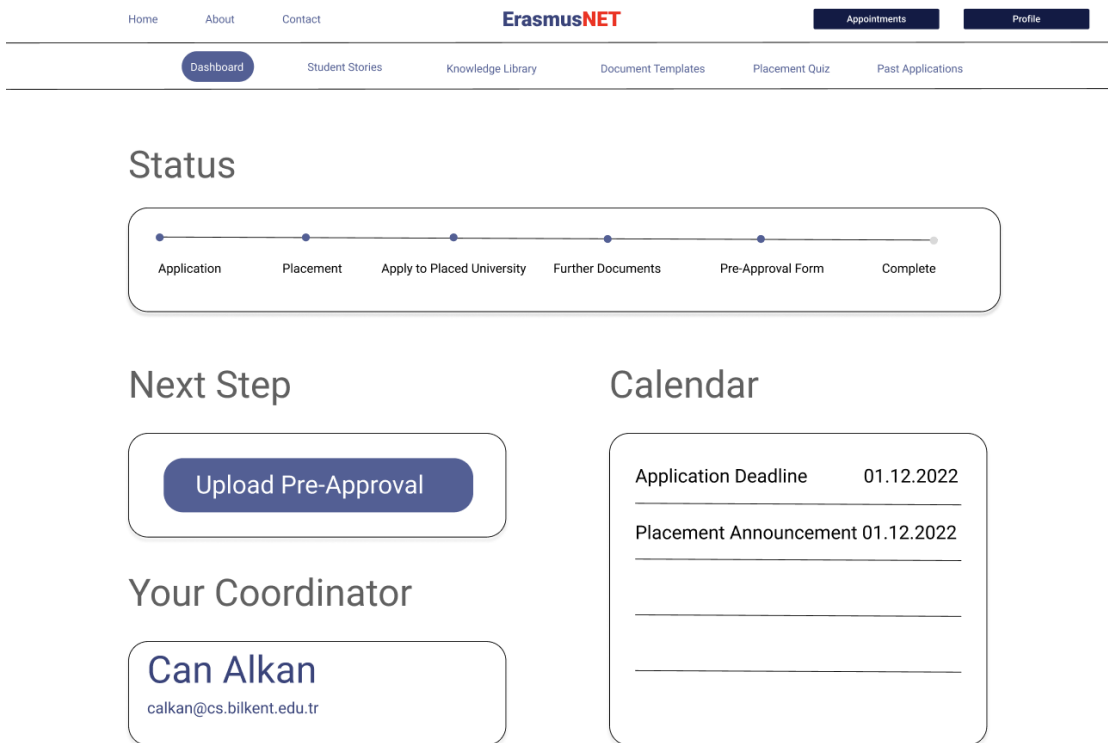


Figure 24: Upload Pre-Approval

The page has a header with Home, About, Contact, ErasmusNET, Appointments, and Profile links. The main heading is 'Upload Pre-Approval Form'. Below it, a 'Pre-Approval Form' section shows a file named 'form.pdf' being uploaded. At the bottom, there are three buttons: 'Back' (blue), 'Save' (blue), and 'Submit' (green).

Upload Pre-Approval Form

Pre-Approval Form

form.pdf

Back Save Submit

Figure 25: Upload Pre-Approval Form

Students will upload their pre-approval form on this page.

3.5.4.4.1.5 Complete

Process is complete and no further action is required from the student.

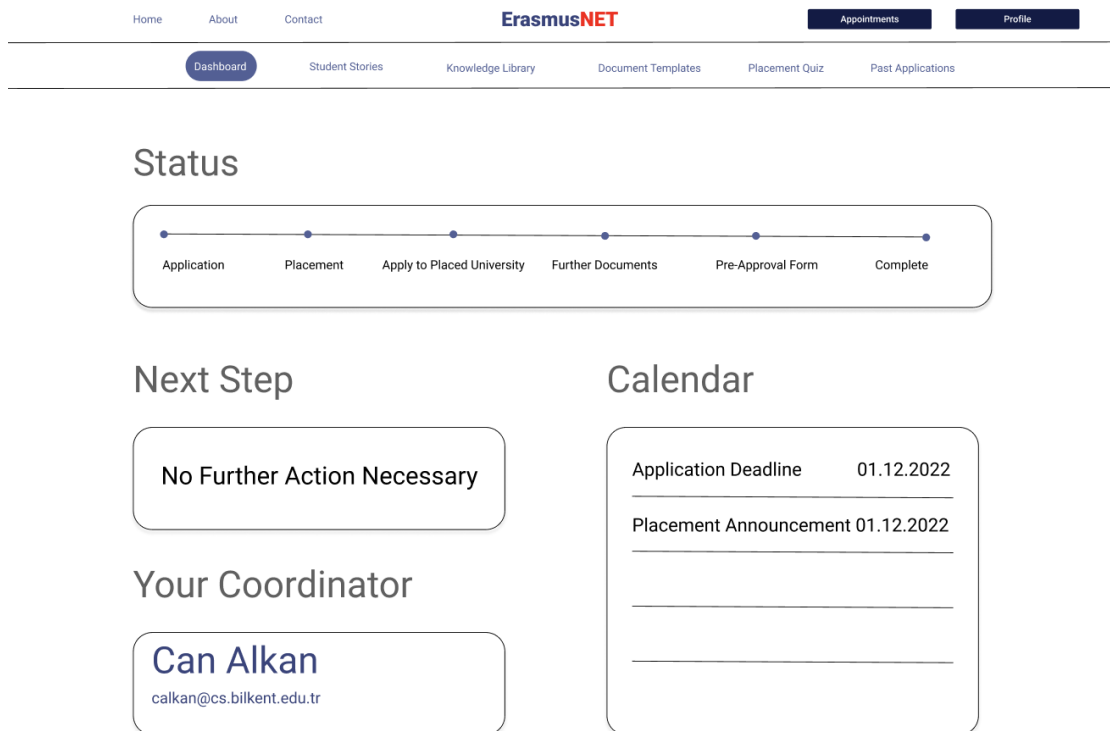


Figure 26: Process Completed

3.5.4.2 Student Stories

This section provides a story written by a former erasmus/exchange student. They will provide their experience and challenges that they've faced during the mobility.

John Doe

EPFL

As an Erasmus student, studying abroad has been an incredible experience that I will never forget. From the moment I arrived in my host country, I was struck by the beauty of the landscape, the richness of the culture, and the warmth of the people.

At first, adjusting to life in a new country was a challenge. I had to navigate a new city, learn a new language, and make new friends. But as time went on, I began to feel more and more at home.

One of the most rewarding aspects of studying abroad has been the opportunity to learn about other cultures and perspectives. I have met people from all over the world and have been exposed to a wide range of ideas and experiences. This has not only broadened my horizons, but it has also challenged me to think critically and to see the world in a new light.

Another highlight of my time as an Erasmus student has been the chance to travel. I have been able to visit many different countries and experience the unique history, culture, and beauty of each place. From hiking in the Swiss Alps to exploring the ancient ruins of Rome, every trip has been a new adventure.

Of course, studying abroad has also been a time of personal growth. I have learned to be more independent, to take risks, and to step outside of my comfort zone. I have also developed new skills, both academically and personally, that will benefit me for years to come.

Overall, my time as an Erasmus student has been an incredible journey that I will cherish for the rest of my life. I am grateful for the opportunities that this program has given me and I would highly recommend it to anyone considering studying abroad.



Figure 27: Student Story

3.5.4.3 Knowledge Library

This section is essentially an FAQ. Students will try to find an answer to their questions here first. If they cannot find help, they will have an option to email one of the coordinators or university staff. The Contact Us button will redirect to a different email address for each question to ensure that only relevant faculty members will be pinged for the question.

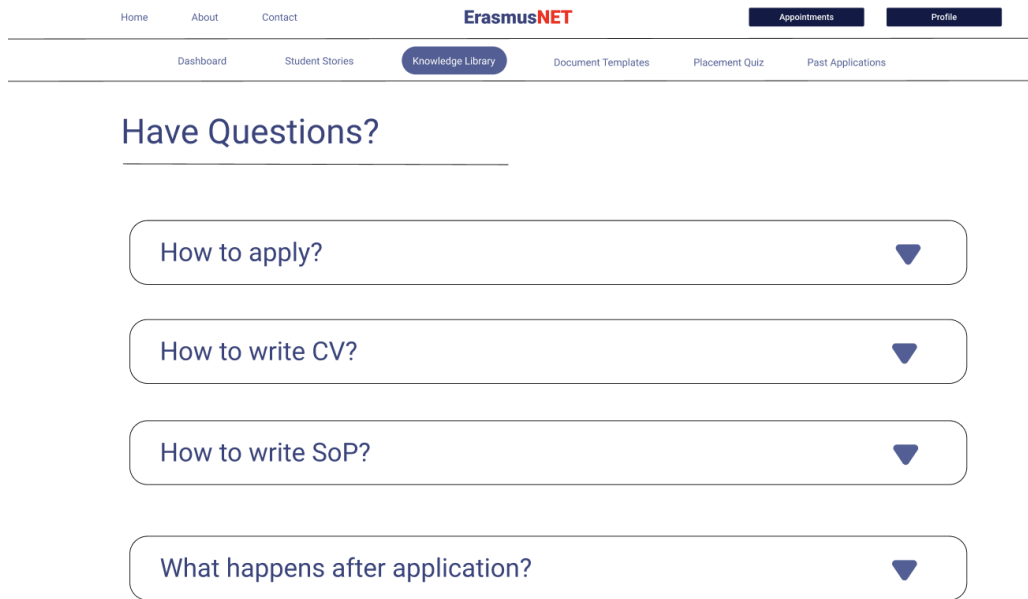


Figure 28: Knowledge Library

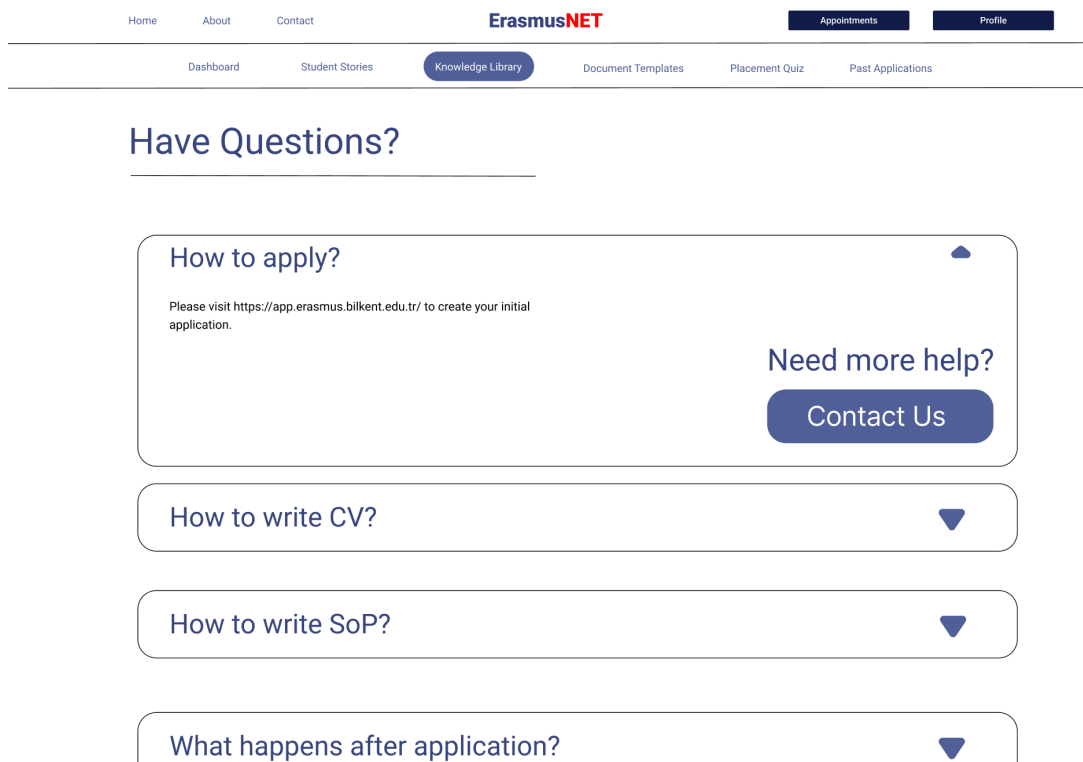


Figure 29: Question Expanded

3.5.4.4 Document Templates

In this section, students will find templates for CV, Statement of Purpose and photo (example).

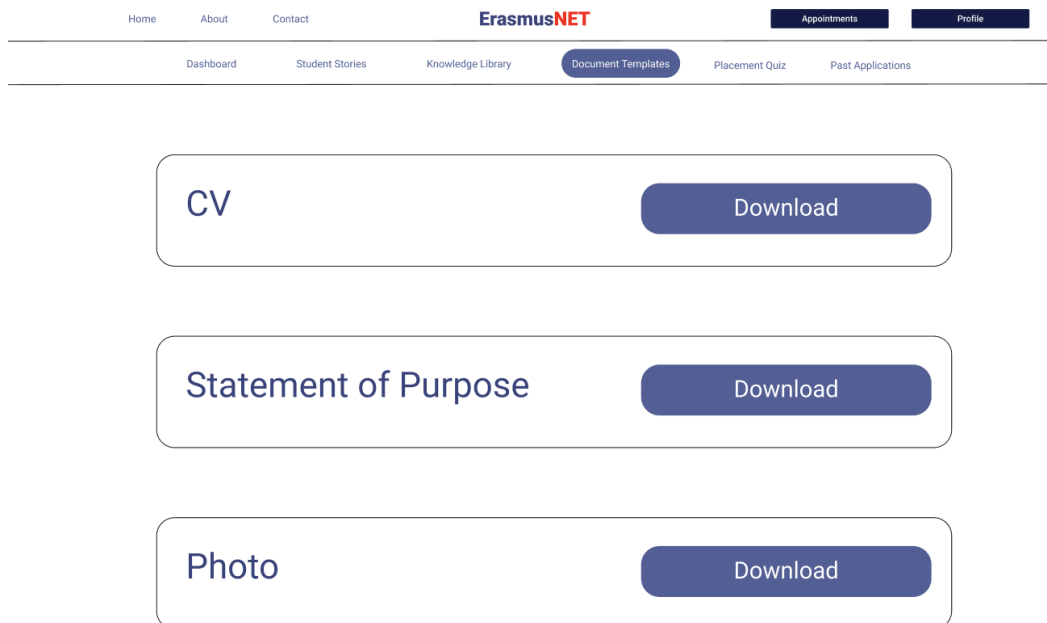


Figure 30: Document Templates

3.5.4.5 Placement Quiz

In this page, students can take a placement quiz to get a realistic list of universities that they should apply to. This will be based on their score and the scores of previous students that went to a certain university.

The screenshot shows the ErasmusNET website's 'Placement Quiz' page. The top navigation bar is identical to the previous figure. The secondary navigation bar highlights 'Placement Quiz'. The main content area has a heading 'Let's Find Your University' followed by a form. The form contains three input fields: 'Your Cumulative GPA' with the value '3.50', 'Your ENG101 Grade' with the value 'A', and 'Your ENG102 Grade' with the value 'A'. At the bottom right of the form, there is a 'Next' button.

Figure 31: Placement Quiz 1

[Home](#)[About](#)[Contact](#)

ErasmusNET

[Appointments](#)[Profile](#)

[Dashboard](#)[Student Stories](#)[Knowledge Library](#)[Document Templates](#)[Placement Quiz](#)[Past Applications](#)

Let's Find Your University

Preferred Continent

Europe

Preferred Country

Germany

Preferred Semester

Spring

Next

Figure 32: Placement Quiz 2

[Home](#)[About](#)[Contact](#)

ErasmusNET

[Appointments](#)[Profile](#)

[Dashboard](#)[Student Stories](#)[Knowledge Library](#)[Document Templates](#)[Placement Quiz](#)[Past Applications](#)

We think these schools match your interests

Germany

University 1

Germany

University 2

Switzerland

University 3

Switzerland

University 4

Austria

University 5

Start Over

Figure 33: Placement Quiz Result

3.5.4.6 Past Applications

On this page, students can view their past applications.

The screenshot shows the ErasmusNET website interface. At the top, there is a navigation bar with links for Home, About, and Contact on the left, the ErasmusNET logo in the center, and buttons for Appointments and Profile on the right. Below this is a secondary navigation bar with links for Dashboard, Student Stories, Knowledge Library, Document Templates, Placement Quiz, and Past Applications (which is highlighted). The main content area is titled 'Past Applications' and contains two rounded rectangular boxes. The first box displays 'Fall Semester 2022' and 'Selected'. The second box displays 'Fall Semester 2021' and 'Not Selected'.

Application Period	Status
Fall Semester 2022	Selected
Fall Semester 2021	Not Selected

Figure 34: Past Applications

3.5.4.7 Profile

Students can access and view their personal information on this page. This page is accessible via the button on top right.

[Home](#)[About](#)[Contact](#)

ErasmusNET

AppointmentsProfile

Profile

First Name

John

Middle Name

Last Name

Doe

Date of Birth

01/01/1970

National ID Number

12345678901

Gender

Male

E-Mail

example@example.com

Phone Number

+905000000000

University

Bilkent University

Save

Figure 35: Profile

3.5.4.8 Appointments

Students can send appointment requests to coordinators here. Coordinator will set the time and date for the appointment.

[Home](#)[About](#)[Contact](#)

ErasmusNET

AppointmentsProfile

Appointments

Coordinator

Can Alkan

Message

I'd like to schedule a meeting on 01/01/2023.

Send Request

Figure 36: Appointment Request

3.5.4.4 Coordinator Dashboard

Coordinator dashboard will have the necessary UI components for the coordinator to start the placement process and approve reject pre-approval forms

3.5.4.1 Dashboard

3.5.4.1.1 Student Applications

Coordinator will start the placement process at this stage. Placement will be done automatically.

The screenshot displays the ErasmusNET web application interface for a coordinator. At the top, there is a navigation bar with links for Home, About, Contact, and a Profile button. Below this is a secondary navigation bar with buttons for Dashboard (highlighted), Student List, Placement List, Appointment Requests, and Course Approvals. The main content area is titled 'Status' and features a progress bar with six stages: Student Applications, Placement, Student Applications to Placed Universities, Request Documents, Approve Courses, and Complete. The 'Placement' stage is currently active. Below the progress bar, there are two sections: 'Next Step' with a 'Start Placement Process' button, and 'Calendar' showing an 'Application Deadline' of 01.12.2022. To the left of the calendar, there is a 'Co-Coordinator' section identifying Aysegul Dunder with her email address adundar@cs.bilkent.edu.tr.

Figure 37: Starting Placement Process

3.5.4.1.2 Placement

This will be done automatically. No action is required from the coordinator.

3.5.4.1.3 Student Applications to Placed Universities

Coordinator will send an application link to students that were placed. These links will be provided to the system and will be automatically sent after they click to the button below.

[Home](#)
[About](#)
[Contact](#)

ErasmusNET

Profile

Dashboard

Student List

Placement List

Appointment Requests

Course Approvals

Status

Student Applications

Placement

Student Applications to Placed Universities

Request Documents

Approve Courses

Complete

Next Step

Send Application Link

Calendar

Application Deadline 01.12.2022

Co-Coordinator

Aysegul Dunder

adundar@cs.bilkent.edu.tr

Figure 38: Sending Application Link

3.5.4.4.1.4 Request Documents

Coordinator will start the document request stage here.

[Home](#)
[About](#)
[Contact](#)

ErasmusNET

Profile

Dashboard

Student List

Placement List

Appointment Requests

Course Approvals

Status

Student Applications

Placement

Student Applications to Placed Universities

Request Documents

Approve Courses

Complete

Next Step

Request Documents

Calendar

Application Deadline 01.12.2022

Co-Coordinator

Aysegul Dunder

adundar@cs.bilkent.edu.tr

Figure 39: Requesting further documents from students

3.5.4.4.1.5 Complete

Coordinators will approve pre-approval forms at this stage which will lead to the process being complete.

The screenshot displays the ErasmusNET dashboard interface. At the top, there is a navigation bar with links for Home, About, Contact, and a Profile button. Below this, a secondary navigation bar includes Dashboard (highlighted), Student List, Placement List, Appointment Requests, and Course Approvals. The main content area features a 'Status' section with a progress bar showing six stages: Student Applications, Placement, Student Applications to Placed Universities, Request Documents, Approve Courses, and Complete. The 'Complete' stage is the final step. Below the status bar, the 'Next Step' section contains a button labeled 'Approve Pre-Approval Forms'. The 'Co-Coordinator' section identifies Aysegul Dunder with her email address. The 'Calendar' section shows an 'Application Deadline' of 01.12.2022.

Home About Contact ErasmusNET Profile

Dashboard Student List Placement List Appointment Requests Course Approvals

Status

Student Applications Placement Student Applications to Placed Universities Request Documents Approve Courses Complete

Next Step

Approve Pre-Approval Forms

Co-Coordinator

Aysegul Dunder
adundar@cs.bilkent.edu.tr

Calendar

Application Deadline 01.12.2022

Figure 40: Start approving Pre-Approval Forms

3.5.4.2 Student List

Coordinators can view all information about students here.



Figure 41: Student list

3.5.4.3 Placement List

Coordinators will see the students that were placed and their placement university.

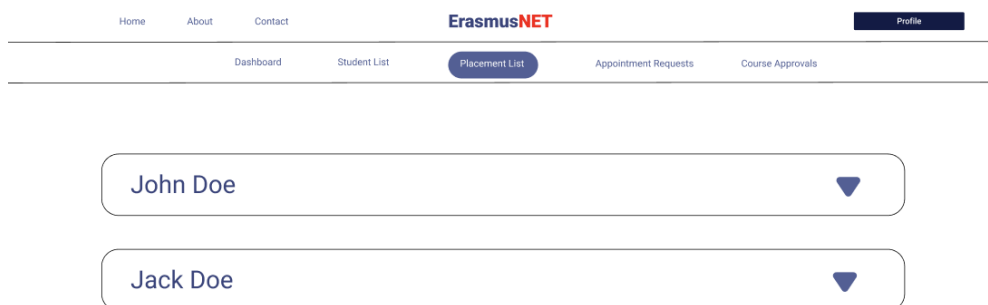


Figure 42: Placement List

3.5.4.4 Appointment Requests

Coordinators will see appointment requests sent by students here.



Figure 43: Appointment Requests

3.5.4.5 Instructor Dashboard

Instructor can approve or reject courses that the student selects based on its compatibility of the Bilkent course.

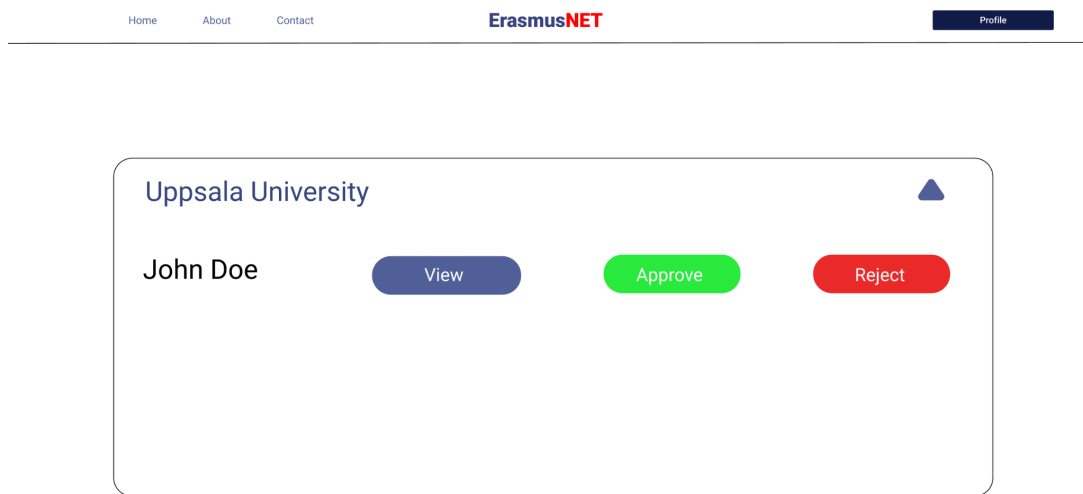


Figure 44: Instructor Dashboard

The screenshot shows the ErasmusNET Approval Request form. The form is titled "Approval Request" and contains several input fields for course details. The fields are organized into two rows of four columns each. The first row contains fields for Bilkent Course, Bilkent Course Name, Bilkent Instructor, and Department. The second row contains fields for Type, ECTS Credits, Erasmus Course Code, Erasmus Course Name, Syllabus, and ECTS Credits. A "Back" button is located at the bottom left of the form.

Bilkent Course	Bilkent Course Name	Bilkent Instructor	Department
CS465	Computer Graphics	Ugur Gudukbay	CS
Type	ECTS Credits		
Technical Elective	6.5		
Erasmus Course Code	Erasmus Course Name	Syllabus	ECTS Credits
1TD388	Computer Graphics	Syllabus.pdf	6.5

Back

Figure 45: View Approval Request

3.5.4.6 Admin Dashboard

Admin can add deadlines to the calendar, can control stages of the exchange process and can approve courses.

Home About Contact ErasmusNET Log Out

Student Status

Further Documents

Coordinator Status

Approve Courses

Calendar

Application Deadline 01.12.2022

Figure 46: Admin Dashboard

4 Improvement Summary

4.1 General

- The application process has been removed from the program as the old system will be used for the applications.

4.2 Functional Requirements

- The requirements for the application process have been removed because ErasmusNET will operate with the students whose applications have been approved by the International Office.

4.3 Use Case Diagrams

- Use case diagrams are put into one main use case, then later explained individually.
- Use cases changed according to the whole system change.

4.4 Activity Diagrams

- Activity diagrams are done again from scratch since the previous activity diagram had all activities in one diagram and did not have swimlanes.

4.5 Sequence Diagrams

- Sequence diagrams are done again from scratch since the previous sequence diagrams were not depicting a scenario.

4.6 State Diagrams

- The states in the state diagrams have been updated since the previous states represented an action rather than a state and were too similar to activity diagrams.
- The diagrams regarding the application process have been removed as they were out of the project's scope.

4.7 Class Diagram

- InternationalOffice class is now called Admin.
- Stage, WaitingList, Course, HostUniversity, PlacedStudentsList classes are added
- Students are no longer submitting their applications. Now, they are generated by Admins from the placement list table.
- We now introduce Host University and Course Classes for viewing old classes

5 Glossary and References

[1] Object-Oriented Software Engineering, Using UML, Patterns, and Java, 2nd Edition, by Bernd Bruegge and Allen H. Dutoit, Prentice-Hall, 2004, ISBN: 0-13-047110-0.