

# SUMMER TRAINING REPORT EVALUATION SYSTEM

# **Requirement Analysis Report**

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# 1. Introduction

Summer Training Report Evaluation System is a software designed for Bilkent University Faculty of Engineering students that are currently taking summer training courses and faculty staff that consist of instructors, teaching assistants, administrative assistants, and summer training coordinators. This application is developed for handling the process of the evaluations of summer training reports that are written after the summer training. Our hope is to ease the evaluation process and decrease the paperwork which is done by administrative assistants, instructors, students, and summer training coordinators.

Administrative assistants can upload the company evaluation forms and enter the grades to corresponding students. Students will be able to upload their summer training reports to the system, where instructors and teaching assistants can give feedback to them. After the feedback, students will upload their revised reports to the system with a message informing them where the changes were made. When the reports are considered adequate, instructors will be able to fill out the evaluation form through the interface. Additional features will enable students to see the steps of their reports.

All these processes can be observed by admins, administrative assistants and summer training coordinators. They will be able to make announcements to all users. Moreover, administrative assistants can observe the overall progress and send reminders to instructors if necessary. Furthermore, privileged users which are admins and administrative assistants can manage the overall process of the system.

Additionally, when all processes are completed, with the help of the statistics system, admins and coordinators can see the finalized statistics.

# 2. Current System

- The administrative assistant assigns instructors to each student. Each instructor has different Google Drive folders and they only see the reports and company evaluation forms of their assigned students.
- Students upload their summer training reports to Moodle.
- Company evaluation forms are sent both digitally and as sealed hardcopy to the summer training coordinators. They send a digital copy of the forms to the administrative assistant, who uploads them to Google Drive.
- On Google Drive, there is an excel sheet and each instructor enters the final grades (as Satisfactory or Unsatisfactory) of their own students. Then the administrator assistant enters these grades to STARS.
- Students cannot track their submission evaluation progress and their partial grades until they are uploaded to STARS.
- There are many stages and platforms involved which require a lot of attention to ensure no mistakes are made. (Usage of Google Drive, E-mail, Microsoft Excel and distribution physical copies)
- If instructors ask for a revision, students use email and Moodle with a new submission form to update their submissions to the revised version.

# 3. Proposed System

#### 3.1 Overview

Summer Training Report Evaluation System will be designed as a web application in order to ease the process of summer training report evaluation for Bilkent University Faculty of Engineering. The most important aim of the system is to minimize the necessary paperwork. The students of the Engineering Faculty will upload their summer training reports via this system. The system will be used for all operations of summer training report evaluation.

In the beginning of each semester administrative assistants will add students who are currently taking summer training courses depending on their department. Students will be distributed to instructors as administrative assistants prefer. The system will send login information to all students. Students will submit their reports after logging in. If students satisfy necessary conditions to be eligible for grading depending on the evaluation form coming from the companies, the evaluation process begins. Before evaluation by instructors begins, administrative assistants can assign teaching assistants to students for quality and format check. Moreover, if reports are seen as adequate, teaching assistants would approve the reports and students will be directed to their instructor. Instructors will start evaluating reports and can ask for revision together with feedback. Students will see their report status and be able to upload revised reports with a description which explains what they changed on the report. Instructors will grade reports with an evaluation form which indicates whether reports meet evaluation criteria. Additionally, the system will send notifications to students in order to prevent them from missing deadlines. Instructors, administrative assistants, summer training coordinators and admin will be able to make announcements when they want. These announcements will appear on the notifications page. The system will store statistics for different steps and show them as graphics. Users will have the ability to view them.

In conclusion, the evaluation of the summer training reports submitted by students enrolled in the Faculty of Engineering will be carried out using this system. Every stage will be completed online. The process of evaluating summer training reports will be made a great amount easier by the system.

#### 3.2 Actors

As a result of requirements analysis and meetings that we did with academic personnel, we declared 6 different actors that can use and interact with the Summer Training application.

- User: Base actor type of all users. Users have all the common behaviors of all users. If a user is not attached to a role, as an abstract role, it will be assigned to the user. Also its access will be limited. Users can login the system by the password which will be sent to the user by the system via email, change account password, log out, view notifications and announcements.
- Admin: Manages the privileged actions of summer training application. By this role, the system can be ready to be used since functioning of the system depends on this role. By admin role, developers can make the system ready to be used since admin initializes the functioning of the application. Admins can add users, remove users, edit user roles, add new roles to users, assign users to their roles at the beginning.
- Students: The privileged actors, admins and administrative assistants, can assign students to this role by the excel sheet that is supposed to be given to them by administrative assistants which contain information of students. Students can upload their summer training reports to the system so that teaching assistants or instructors can see it. Also they can edit and remove the uploaded report before the deadline. Students can upload their revised report with a description that they write the changes in the report. After they upload their reports, they can view their reports history where all their submissions and their feedback are stored. After the instructor or teaching assistant gives feedback, students can view the feedback given. They can display highlighted reports with feedback and revision requests. Students can see their current status of reports as "submitted", "satisfactory", "unsatisfactory", "revision required", "under evaluation" and "pending company evaluation form". Like other roles, students can view their profiles and announcements.
- **Instructor:** The privileged actors can assign students to the instructor role in the system. Instructor role has all of the traits of a user. Instructor's main roles are uploading feedback to the reports, assigning due dates and filling the evaluation forms. Instructors can upload feedback, upload highlighted reports with feedback,

send revision requests to students, view student list, student profiles, statistics for their own students, current status of students, students' reports, feedback histories, and fill summer training grade form. Instructors also can find students in the list either by filtering or searching. They can update the current status of student reports. For the reports, they can upload their e-signatures and fill the summer training grade form. Also they can update the summer training grade form.

- **Teaching Assistant:** Teaching assistant roles can be assigned by privileged actors. They have all the traits of the user role. Teaching assistants can give format and quality checks to reports of assigned students, view feedback history, assigned students list, assigned students' profiles, current status of assigned students, assigned students' reports and send revision requests to the student. Also teaching assistants can search for students that are assigned to them and filter the search.
- Administrative Assistants: An administrative assistant can only be assigned by an admin. An administrative assistant extends the abilities and treats of the admin. An administrative assistant can assign students to the instructors and edit it, upload company evaluation form for each student, view student list, view student profile, search students and filter the search, send reminders to instructors for deadlines, view current status of students, make announcements to all the users, view statistics for all instructors and students in their department, view company statistics and evaluation phases of grade forms.
- Summer Training Coordinator: A summer training coordinator can be assigned to this role by privileged roles. This role is able to do all the things the user role can do. Also they can make announcements to all users. This role is entitled to view announcements, statistics for all students, company statistics, instructor statistics and evaluation phases of grade forms.

# 3.3 Non-functional Requirements

# 3.3.1 Usability

The user interface is the most important component of the program since it is the point of initial user interaction. The objective of the system is to develop a straightforward user interface while retaining the usability and functionality of the system in order to make a good first impression and keep it.

- Switching between pages will be provided through the sidebar on the left.
- Main features of the program will be utilized after clicking two or three times from the sidebar.
- While uploading summer training reports, the system will only accept pdf format.

  This will prevent students uploading different format types mistakenly.
- Statistics will be seen as well-organized graphics.

#### 3.3.2 Maintainability

Maintainability is an essential factor while creating any kind of software because of continually changing needs and software technologies.

- Object-oriented programming will be used to create the system in order to obtain features and facilitate simple OOP usage. Using OOP, we will not run into significant issues with maintaining the entire application, adding new features, or fixing bugs.
- To make maintenance and debugging simpler, the code will be written in a clean, concise manner utilizing consistent coding principles and clearly specified naming conventions.
- To make maintenance and future development easier, the system will be completely documented, including both internal and external documentation. The source code will be traceable through the source control system Git.

#### 3.3.3 Reliability

Reliability is one of the most crucial aspects of the system. The system will be consistent and prevent users from losing any kind of data.

• The system must operate successfully in 95 percent of use cases per semester.

- There will be 5ms delay for maintenance or upgrades, and the system will always be usable.
- Database backup will be taken every 24 hours to prevent data loss.

#### 3.3.4 Performance

The software should run quickly, be responsive, have short load times, and have little latency. Users should have uninterrupted access to the application and the ability to execute tasks

- The program will send login credentials in less than 1 minute.
- Users can login to and log out from the system in at most 5 seconds.
- Uploading and downloading files will take less than 10 seconds.
- Switching between screens will take less than 3 seconds.

# 3.3.5 Security

The system contains sensitive user data that needs to be kept confidential and shielded from unauthorized intrusions.

- Every person will not be able to sign up to this program. Administrative assistants will decide whomever has an account. Their login information will be sent to users.
- Just necessary information about users will appear on their profile page.
- The system will have role-based access so that only related users will be able to control important functionalities.

# 3.4 Pseudo Requirements

- The project should be implemented as a web application to reduce the paperwork to minimum.
- The project should support Object-Oriented Programming (OOP) for the scope of the CS319 Object-Oriented Software Engineering course.
- Source code should be trackable via a source control system. For this reason GitHub and Git are the tools used.

# 3.5 System Models

# 3.5.2. Use Case Model

https://online.visual-paradigm.com/share.jsp?id=323234343632302d38

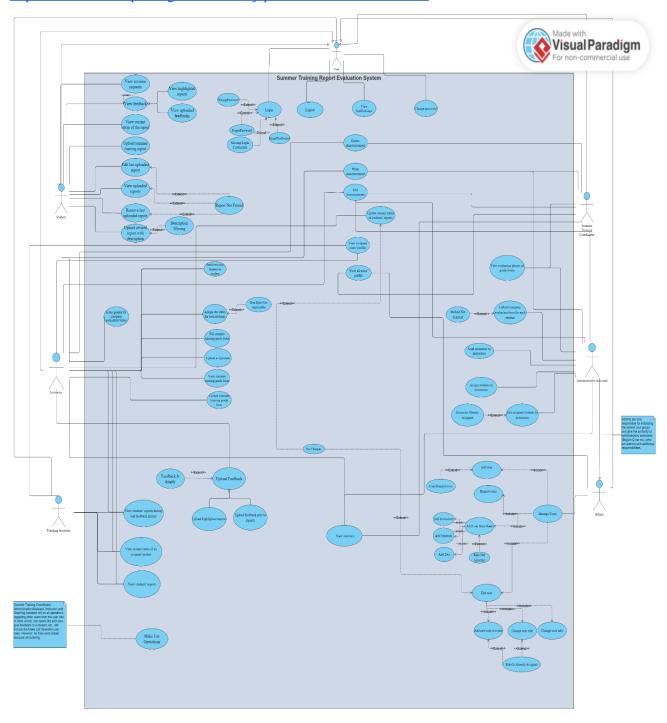


Figure 1: Use Case Model

# 3.5.2 Use Case Textual Descriptions

Name: View uploaded reports

Participating Actor: Student

Entry Condition: Being a student and clicking on the "Reports" page.

**Exit Condition:** Navigating to another page.

#### Flow of Events:

- Student wants to view his/her previously uploaded summer training report.
- Student clicks on the "Reports" page on the sidebar.
- If student has not uploaded a report before but clicks on the "Reports" page,
  - "Report Not Found" message is displayed.
- Else, from the opened "Reports" page, the student can see the previously uploaded report and the evaluation progress of it

Name: View revision requests

**Participating Actor:** Student

**Entry Condition:** Being a student that has an unsatisfactory grade on his/her previous report and clicking the "Notifications" or "Reports" page.

Exit Condition: Navigating to another page.

#### Flow of Events:

- Student has submitted an insufficient report before.
- Instructor has asked for a revised version of the report.
- Student clicks on the "Notifications" page and sees that the instructor has sent a revision request.
- Student can also see that a revision is requested on the "Reports" page.
- This use-case involves "View Uploaded Feedbacks" and "View Highlighted Reports".

Name: View uploaded feedback

**Participating Actor: Student** 

Entry Condition: Being a student with a previously graded report and clicking on the

"Reports" page.

**Exit Condition:** Navigating to another page

Flow of Events:

• Instructor has uploaded feedback for the student's submission.

• Student wants to view his/her summer training report feedback.

• Student clicks on the "Reports" page and sees the instructor's feedback under the

submission details.

Name: View highlighted reports

Participating Actor: Student

Entry Condition: Being a student with a previously graded report and clicking on the

highlighted report on his/her "Reports" page.

**Exit Condition:** Navigating to another page.

Flow of Events:

• Student wants to view his/her previously submitted summer training report.

• Instructor has made changes on the report and uploaded a highlighted version of it

with the feedback.

• Student clicks on the "Reports" page on the sidebar and sees the instructor has

uploaded a highlighted report.

• Student clicks on that report to view it.

Name: View current status of the report

**Participating Actor: Student** 

**Entry Condition:** Being a student and having uploaded a summer training report.

**Exit Condition:** Navigating to another page.

**Flow of Events:** 

• Student has uploaded a summer training report before and wants to check its

evaluation progress.

• Student clicks on the "Reports" page and sees the evaluation status for Part A, Part B

and Part C for the lastly submitted report.

Name: Upload summer training report

**Participating Actor: Student** 

**Entry Condition:** Being a student and clicking on the "File Submission" page.

Exit Condition: Canceling the submission, editing the submission, uploading the submission

or navigating to another page.

#### **Flow of Events:**

- Student wants to upload a summer training report.
- Student navigates to the "File Submission" page.
- If student is allowed to upload a new report, he/she uses the drop zone or the uploading screen to submit a new report.

Name: Edit last uploaded report

Participating Actor: Student

**Entry Condition:** Being a student and clicking the "File Submission" page.

**Exit Condition:** Canceling the edit screen or navigating to another page.

#### Flow of Events:

- Student has uploaded a summer training report before and wants to edit the submission.
- Student clicks on the "File Submission" page.
- Student sees the previous submission file and clicks "Edit".
- Student can edit the submission or cancel the request to terminate the editing process.

Name: Remove last uploaded report

**Participating Actor:** Student

**Entry Condition:** Being a student and clicking the "File Submission" page.

**Exit Condition:** Canceling the remove screen or navigating to another page.

#### Flow of Events:

- Student has uploaded a summer training report before and wants to remove the submission.
- Student clicks on the "File Submission" page.
- Student sees the previous submission file and clicks "Remove submission".
- Student can confirm the removal request or cancel it to terminate the process.

Name: Upload revised report with description

**Participating Actor:** Student

**Entry Condition:** Being a student and clicking the "File Submission" page.

**Exit Condition:** Canceling the submission screen or navigating to another page.

• Student has submitted an insufficient report before.

• Instructor has asked for a revised version of the report.

• Student clicks on the "File Submission" page.

• Student chooses the revised file to upload and adds a description about changes to the

revised version of his/her report.

• Student can confirm the submission or cancel it to terminate the process.

Name: Upload company evaluation form for each student

Participating Actor: Administrative Assistant

**Entry Condition:** Being an administrative assistant and clicking on the "Company Forms"

on the sidebar.

**Exit Condition:** Navigating to another page.

#### Flow of Events:

• Administrative assistant wants to upload a company form for a student

• Administrative assistant clicks on the "Company Forms" page on the sidebar.

• Administrative assistant selects the corresponding company form and uploads it to the

dropzone area.

• Then, a student list pops up and the administrative assistant chooses the

corresponding student and presses the upload.

o If they try to press upload without selecting a student, a "Student Not

Selected" message is displayed.

Name: Send reminder to instructors

Participating Actor: Administrative Assistant

Entry Condition: Being an administrative assistant and clicking on the "Instructor Progress"

on the sidebar.

**Exit Condition:** Navigating to another page.

#### **Flow of Events:**

• Administrative assistant wants to remind instructors that are behind schedule to

evaluate the reports

• Administrative assistant clicks on the "Instructor Progress" page on the sidebar.

• Administrative assistant observes the overall progress rates of the instructors and

press the reminder button for those are behind

Name: Assign students to instructors

Participating Actor: Administrative Assistant

Entry Condition: Being an administrative assistant, clicking on the "Student list" on sidebar

and choosing assign instructor option

**Exit Condition:** Navigating to another page, pressing the approve or cancel button.

#### Flow of Events:

- Administrative assistant wants to assign an instructor to a student
- Administrative assistant clicks on the "Student list" page on the sidebar.
- Administrative assistant selects presses the option icon for the corresponding student and choose assign instructor option
- Then, a reassign page appears and the administrative assistant chooses an instructor from the list for the corresponding student.
- After instructor is selected, system will enable a approve button and administrative assistants will press it to save the assignment to the system

Name: Edit assigned students to instructors

Participating Actor: Administrative Assistant

Entry Condition: Being an administrative assistant, clicking on the "Student list" on sidebar

and choosing assign instructor option

**Exit Condition:** Navigating to another page, pressing save or cancel button.

#### **Flow of Events:**

- The administrative assistant wants to reassign an instructor to a student
- The administrative assistant clicks on the "Student list" page on the sidebar.
- The administrative assistant selects presses the option icon for the corresponding student and choose reassign instructor option
- Then, a reassign page appears and the administrative assistant chooses an instructor from the list for the corresponding student.
- After instructor is selected, system will enable a approve button and administrative assistants will press it to save the assignment to the system
  - If they try to assign an instructor which is already assigned, system will give "Instructor Already Assigned" message

Name: Add user

Participating Actor: Admin

**Entry Condition:** Being an admin, clicking on the "Manage Users" on the sidebar pressing the add button.

**Exit Condition:** Navigating to another page, pressing cancel or add button.

#### **Flow of Events:**

- Admin wants to add a new user to the system.
- Admin clicks on the "Manage Users" page on the sidebar.
- Admin presses the add button and selects the new user option
- Admin fills the information for the new user.
- Then, the system pops up a message including the choices of approve or cancel.
  - If they try to press upload and another user with the same information is found in the system, "User Already Exists" message is displayed.

Name: Remove user

Participating Actor: Admin

**Entry Condition:** Being an admin, clicking on the "Manage Users" on the sidebar and choosing the remove user option.

**Exit Condition:** Navigating to another page, pressing the remove or cancel button.

#### Flow of Events:

- Admin wants to add a new user to the system.
- Admin clicks on the "Manage Users" page on the sidebar.
- Admin presses the option icon for the corresponding user and selects remove user.
- Then, the system pops up a message including the choices of approve or cancel.
- If they try press approve user is deleted from the system

Name: Add User Data Sheet

Participating Actor: Admin

**Entry Condition:** Being an admin , clicking on the "Manage Users" on the sidebar and choosing add user list option.

**Exit Condition:** Navigating to another page.

- Admin wants to add a new user to the system.
- Admin clicks on the "Manage Users" page on the sidebar.
- Admin presses the add button and selects add user list option

• Admin uploads the list and selects the role (student, instructor or teaching assistant)

they want to assign to them

• Then, system pops up a message including the choices of approve or cancel

o If they have not chosen a role, the system gives a "Role Not Selected"

message.

• Else, all the users in the sheet are added to the system

Name: Edit user

Participating Actor: Admin

Entry Condition: Being an admin, clicking on the "Manage Users" on the sidebar and

choosing edit user option.

**Exit Condition:** Navigating to another page, pressing cancel or approve button.

Flow of Events:

• Admin wants to edit a user in the system.

• Admin clicks on the "Manage Users" page on the sidebar.

• Admin presses the option icon for the corresponding user and selects edit user option.

• In the edit user page, admin can assign a new role to the user, change their role,

change user information.

• If they try to assign the same role again, the system gives the "Role Is Already

Assigned" message.

o If no changes are made and Admin hits the approve button, the system gives a

"No Changes" message.

Name: Handle Report Process

**Participating Actor:** Instructor

**Entry Condition:** Being an instructor, clicking on the "Student List" on the sidebar,

choosing a student in the list and clicking on the student's name to navigate to the student's

page.

Exit Condition: Navigating to another page or pressing to cancel button or pressing to save

button

Flow of Events:

• Instructor wants to send revision request to the student, update the status of the

student's report, assign due dates for the student.

• Instructor clicks on the "Student List" page on the sidebar.

• Instructor searches for a student in the search bar.

• Instructor presses the student's name for the corresponding student and navigates to

the student's page.

• On this page, instructors can send revision request to student, update the status of the

student's report and assign due dates for the student.

• If the instructor tries to assign an invalid due date, the system gives the "Due

Date Not Applicable" message.

• If no changes are made for the status of the student's report and the instructor

hits the approve button, the system gives a "No Changes" message.

Name: Handle Grade Forms

**Participating Actor:** Instructor

Entry Condition: Being an instructor, clicking on the "Student List" on the sidebar,

choosing a student in the list, clicking on the student's name to navigate to the student's page

and clicking on the fill grade form button if there is a report which is not evaluated.

**Exit Condition:** Navigating to another page or pressing to cancel button or pressing to save

button

Flow of Events:

• Instructor wants to fill a summer training grade form for the student, upload

e-signature, view uploaded summer training grade forms, update summer training

grade form of the student.

• Instructor clicks on the "Student List" page on the sidebar.

• Instructor searches for a student in the search bar.

• Instructor presses the student's name for the corresponding student and navigates to

the student's page.

• In this page, the instructor fills a summer training grade form for the student, upload

e-signature, view uploaded summer training grade forms, update summer training

grade form of the student.

Name: Evaluate report

Participating Actor: Instructor

Entry Condition: Being an instructor, clicking on the "Student List" on the sidebar,

choosing a student in the list, clicking on the student's name to navigate to the student's page

and clicking on the fill grade form button if there is a report which is not evaluated.

**Exit Condition:** Navigating to another page or pressing to cancel button or pressing to approve or decline buttons

#### Flow of Events:

- Instructor wants to approve the summer training report of a student, or decline and ask for revision of the report and upload a feedback, or fail the student.
- Instructor clicks on the "Student List" page on the sidebar.
- Instructor searches for a student in the search bar.
- Instructor presses the student's name for the corresponding student and navigates to the student's page.
- In this page, after the instructor fills a summer training grade form for the student, if the grade form is satisfactory, student's report will be approved or if the grade form is unsatisfactory and instructor can fail the student or instructor can upload a highlighted version of the report and a feedback note for the student and ask for revision.
  - If the instructor leaves the feedback note empty an error message "Feedback note cannot be empty!" will be displayed.

Name: Manage Instructor Announcement

**Participating Actor:** Instructor

**Entry Condition:** Being an instructor, clicking on the "Notifications" on the sidebar, clicking on the make an announcement button or edit icon for an existing announcement.

**Exit Condition:** Navigating to another page or pressing to publish button or cancel button or save the changes button

- Instructor wants to make an announcement or to edit an announcement to student of his/her own or to delete an announcement
- Instructor clicks on the "Notifications" page on the sidebar.
- Instructor clicks on the "Make an announcement" button.
- Instructor writes the announcement and publishes it.
- Instructor clicks on the edit icon next to an already existing announcement published by the same instructor to edit this announcement.
- Instructor makes the changes in the announcement and either clicks on save changes button or cancel button.
- Instructor clicks on the waste bin icon next to an already existing announcement published by the same instructor to delete this announcement.

• Instructor either approves the deletion or declines it by clicking on yes or no buttons on the pop-up window.

Name: Manage Admin/Coordinator Announcement

Participating Actor: Admin, Coordinator, Administrative Assistant

**Entry Condition:** Being an admin, a coordinator or an administrative assistant, clicking on the "Notifications" on the sidebar, clicking on the make an announcement button.

**Exit Condition:** Navigating to another page or pressing to cancel button or pressing to approve or decline buttons

#### **Flow of Events:**

- User wants to make an announcement to users in the system or to edit an announcement or to delete an announcement.
- User clicks on the "Notifications" page on the sidebar.
- User clicks on the "Make an announcement" button.
- User writes the announcement, chooses the type of audience, all users or all students or all instructors, and publishes it.
- User clicks on the edit icon next to an already existing announcement published by the same instructor to edit this announcement.
- User makes the changes in the announcement and either clicks on save changes button or cancel button.
- User clicks on the waste bin icon next to an already existing announcement published by the same instructor to delete this announcement.
- User either approves the deletion or declines it by clicking on yes or no buttons on the pop-up window.

Name: View assigned users' profile

Participating Actor: Instructor, Teaching Assistant

**Entry Condition:** Clicking "Student List" on the sidebar, then clicking on a students name

Exit Condition: Navigating to another page or a profile

- Instructor or teaching assistant wants to view the assigned users' (who are students) profiles.
- Instructor or teaching assistant clicks on the "Student List" on the sidebar.
- Instructor or teaching assistant clicks on the name of the Student which they want to view the profile of.

Name: View all users' profile

Participating Actor: Admin, Administrative Assistant, Summer Training Coordinator

Entry Condition: Clicking on any users name

Exit Condition: Navigating to another page

#### Flow of Events:

- Admin, administrative assistant or summer training coordinator wants to view the profile of a user.
- Admin or administrative assistant clicks on the "Manage Users" on the sidebar, summer training coordinator clicks on the "Users List" on the sidebar.
- Admin, administrative assistant or summer training coordinator clicks on the name of the user that they want to view the profile of, from the list that opens after they click the according buttons.

Name: Manage All Lists

Participating Actor: Administrative Assistant

Entry Condition: Clicking on "Manage Users" on the sidebar

Exit Condition: Navigating to another page or a profile

#### Flow of Events:

- Administrative assistant wants to view all the lists.
- Administrative assistant clicks on "Manage Users" on the sidebar.
- Administrative assistant clicks on the small triangle on the right of "Role", which is at the top of the list of all users.
- Administrative assistant chooses the role of which they wanted to view the list.

Name: Manage Restricted Lists

Participating Actor: Instructor, Teaching Assistant

Entry Condition: Clicking "Student List" on the sidebar

Exit Condition: Navigating to another page or a profile

- Instructor or teaching assistant wants to view assigned students' list
- Instructor or teaching assistant clicks on "Student List" on the sidebar

**Name:** List Actions

Participating Actor: Administrative Assistant, Instructor, Teaching Assistant

Entry Condition: Clicking "Manage Users" as Administrative Assistant or clicking "Student

List" as an Instructor or a teaching assistant on the sidebar

Exit Condition: Navigating to another page

Flow of Events:

• Administrative assistant, instructor or teaching assistant wants to take one of

the list actions, which are Filter, Search and View List

• Administrative assistant clicks on "Manage Users" on the sidebar, instructor or

teaching assistant clicks on "Student List" on the sidebar.

o If administrative assistant, instructor or teaching assistant wants to take

Filter action, they click on the small triangle near one of the column

names on the list.

o If administrative assistant, instructor or teaching assistant wants to take

Search action, they click on the empty search bar and enter the name

they want to search for.

o If Administrative assistant, instructor or teaching assistant wants to

take View List action, they can apply a filter on the list in a way that

they see wanted data on it.

Name: View Evaluation Phases of the Grade Forms

Participating Actor: Summer Training Coordinator, Administrative Assistant

**Entry Condition:** Clicking "Instructor Progress" on the sidebar

**Exit Condition:** Navigate to another page or a profile

Flow of Events:

• Summer training coordinator or administrative assistant wants to view the

Evaluation Phases of the Grade Forms.

• Summer training coordinator or administrative assistant clicks on "Instructor

Progress" on the sidebar.

• Summer training coordinator or administrative assistant views the overall

progress of each instructor on the Progress column.

Name: Manage Admin / Coordinator Statistics

Participating Actor: Administrative Assistant, Summer Training Coordinator

Entry Condition: Clicking submitted summer training forms or grade status or number of

students that completed each stage on the "Statistics" page

**Exit Condition:** Navigating to any page or profile

Flow of Events:

• Administrative assistant or summer training coordinator wants to view

submitted summer training forms or grade status or number of students that

completed each stage of all students

• Administrative assistant or summer training coordinator clicks "Statistics" on

the sidebar

• Administrative assistant or summer training coordinator clicks submitted

summer training forms or grade status or number of students that completed

each stage on the "Statistics" page

• Administrative assistant or summer training coordinator views submitted

summer training forms or grade status or number of students that completed

each stage of all students

Name: Manage Instructor Statistics

Participating Actor: Instructor

Entry Condition: Clicking submitted summer training forms or grade status or number of

students that completed each stage on the "Statistics" page

**Exit Condition:** Navigating to any page or profile

Flow of Events:

• Instructor wants to view submitted summer training forms or grade status or

number of students that completed each stage of assigned students

• Instructor clicks "Statistics" on the sidebar

• Instructor clicks submitted summer training forms or grade status or number

of students that completed each stage on the "Statistics" page

• Instructor views submitted summer training forms or grade status or number

of students that completed each stage of assigned students on the "Statistics"

page

Name: Quality and Format Check

Participating Actor: Teaching Assistant

Entry Condition: Being teaching assistant, clicking student list, finding the student and

clicking on it if the report is submitted before

Exit Condition: Navigating to another page or a profile, giving pass to the student and

clicking on send to instructor button, giving feedback and clicking send to student button,

clicking on cancel button

Flow of Events:

• Teaching assistant wants to do a quality and format check on submitted report

of an assigned student

• Teaching assistant clicks on "Student List" on sidebar

• Teaching assistant clicks on a student name which uploaded its report

• Sidebar changes to "Report Evaluation" from "Student List"

• Teaching assistant gives feedback to assigned students' reports and ask for

iterations for assigned students' reports if the student couldn't pass the check

and clicks the send to student button,

Teaching assistant clicks on send to the instructor if the student could pass the

test.

Name: Give Feedback to Assigned Students' Reports

**Participating Actor:** Teaching Assistant

Entry Condition: Being teaching assistant, clicking student list, finding the student and

clicking on it if the report is submitted before

Exit Condition: Navigating to another page or a profile, clicking on send to student button

after writing a feedback, clicking on cancel button

Flow of Events:

• Teaching assistant comes to the Quality and Format Check page after clicking

on student name

• Teaching assistant comments on the report and sends it to the student if report

cannot pass, by clicking send to student button

Name: Ask for Iterations for Assigned Students' Reports

Participating Actor: Teaching Assistant

Entry Condition: Being teaching assistant, clicking student list, finding the student and

clicking on it if the report is submitted before

**Exit Condition:** Navigating to another page or a profile, clicking on send to student button after understanding the student couldn't pass the check and writing a feedback based on it, clicking on cancel button

#### Flow of Events:

- Teaching assistant comes to the Quality and Format Check page after clicking on student name
- Teaching assistant comments on the report, gives feedback and sends it to the student if report cannot pass, by clicking send to student button

Name: Handle Reports

Participating Actors: Instructor and Teaching Assistant

Entry Condition: Being teaching assistant or instructor, clicking on "Student List" on the

sidebar

**Exit Condition:** Navigating to another page, clicking cancel button

#### Flow of Events:

- Teaching assistant or instructor wants to handle the reports
- Teaching assistant or instructor clicks on "Student List" on the sidebar
- Teaching assistant or instructor can view student status here
- Teaching assistant or instructor clicks on a student which uploaded it's report before
- Sidebar changes to "Report Evaluation" from "Student List"
- Teaching assistant or instructor can view recently uploaded student report, student's reports history, feedback history here

Name: View Students' Reports History and Feedback History

**Participating Actors:** Instructor and Teaching Assistant

Entry Condition: Being teaching assistant or instructor, clicking on "Student List" on the

sidebar, clicking on a student

**Exit Condition:** Navigating to another page

- Teaching assistant or instructor want to view students' reports history and feedback history
- Teaching assistant or instructor clicks on "Student List" on the sidebar
- Teaching assistant or instructor clicks on a student which uploaded it's report

- Sidebar changes to "Report Evaluation" from "Student List"
- Teaching assistant or instructor can see the reports and feedback history on this page

Name: View Students' Reports

Participating Actors: Instructor and Teaching Assistant

Entry Condition: Being teaching assistant or instructor, clicking on "Student List" on the

sidebar, clicking on a student

**Exit Condition:** Navigating to another page

#### **Flow of Events:**

- Teaching assistant or instructor wants to view students' reports
- Teaching assistant or instructor clicks on "Student List" on the sidebar
- Teaching assistant or instructor clicks on a student which uploaded it's report
- Sidebar changes to "Report Evaluation" from "Student List"
- Teaching assistant or instructor can see the recently uploaded student report

Name: View Current Status of an Assigned Student

Participating Actors: Instructor and Teaching Assistant

Entry Condition: Being teaching assistant or instructor, clicking on "Student List" on the

sidebar

**Exit Condition:** Navigating to another page

- Teaching assistant or instructor wants to view current status of an assigned student
- Teaching assistant or instructor clicks on "Student List" on the sidebar
- Teaching assistant or instructor can see the current status of assigned students on this page

# 3.5.3. Object and Class Model

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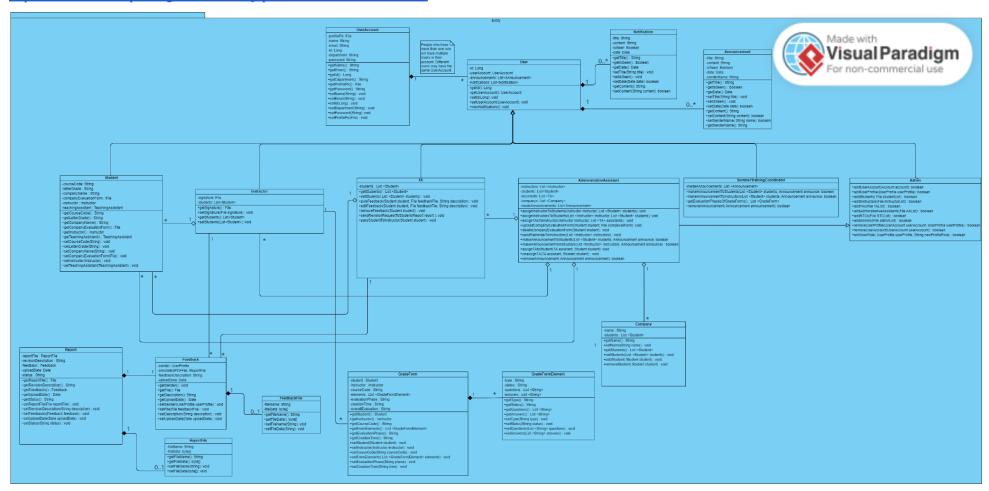


Figure 2: Object and Class Model

# 3.5.4. Dynamic Models

# 3.5.4.1 Activity Diagrams

i) Assignment of instructors and teaching assistants to students by the administrative assistant

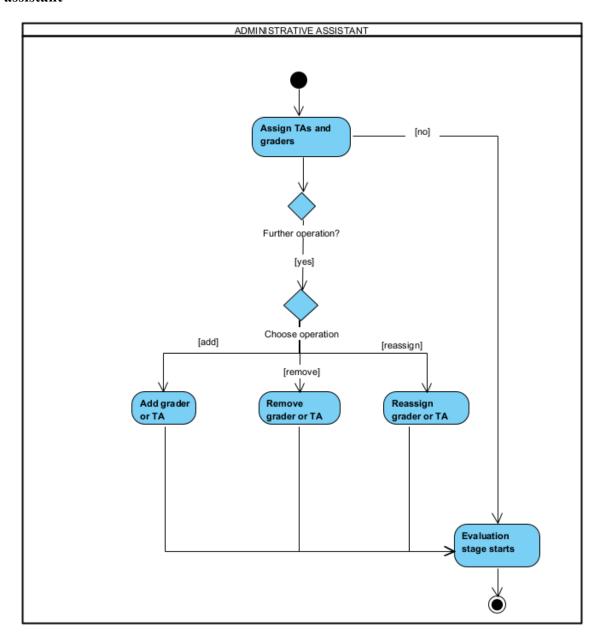


Figure 3: Activity Diagram of the instructor and TA assignment process. The administrative assistant can add, remove, or reassign a student's designated instructor and TA.

# ii) Company evaluation form grading process

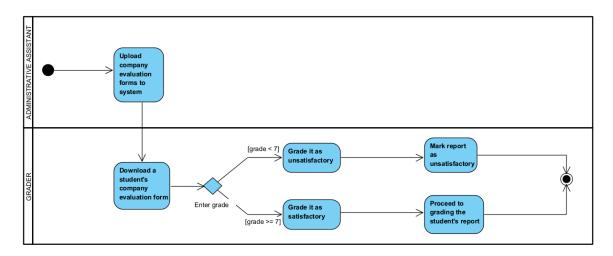


Figure 4: Activity Diagram of the Company Evaluation Form (CEF) evaluation process.

After the administrative assistants receive company evaluation forms, they will upload it to the system. The instructors will check each student's CEF and enter the grades as "Satisfactory" or "Unsatisfactory" depending on the grade. If the student gets a grade less than 7 in their form, they fail Part A resulting in an unsatisfactory grade. If the student gets a satisfactory grade, the instructor will proceed with evaluating the rest of the student's report.

# iii) Submission and Evaluation Process

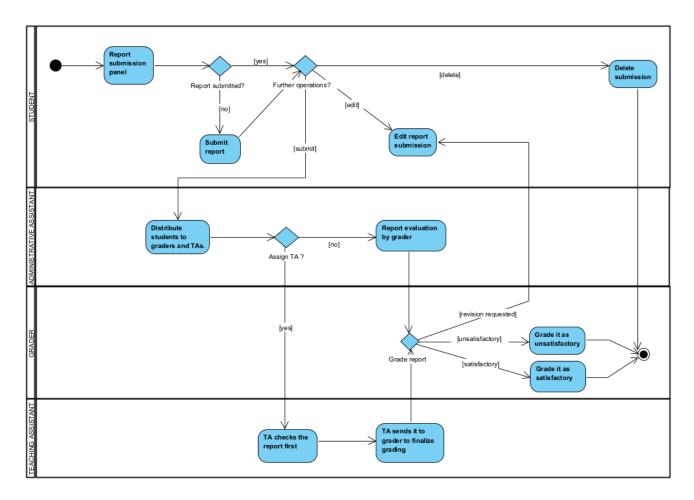


Figure 5: Activity Diagram of the submission and assessment process of a summer training report. It starts when a student uploads the report and ends when that report is graded or removed.

# 3.5.4.2 State Diagram

# https://online.visual-paradigm.com/share.jsp?id=323434323430392d34

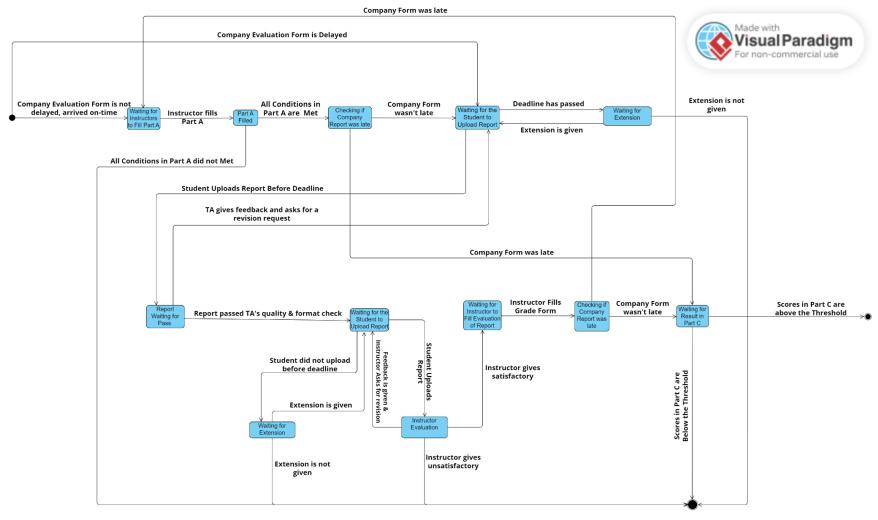
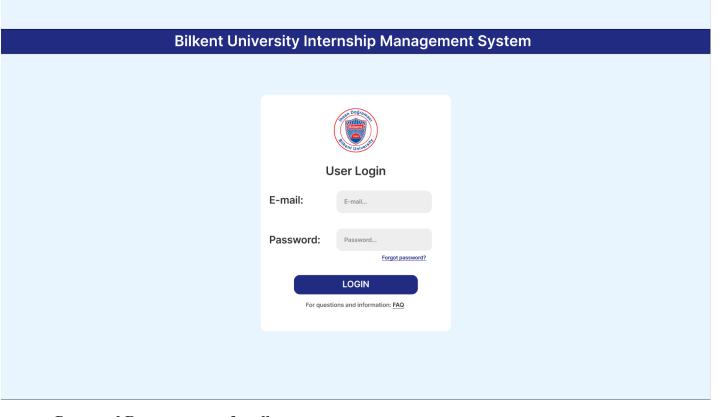


Figure 6: State Diagram of a student's grade form assessment process

If the company evaluation form is uploaded to the system by administrative assistants on time, the report and grade form waits for instructors to fill part A. Instructor fills part A. If all the conditions in part A are met the student directly passes part A, else the student fails part A. Also, if the company result was late (part B was done before part A), the next procedure step is part C. If the company result was not late (part B was not done before part A) and after completing part A successfully, the system waits for the student to upload a report for Part B within the given deadline. If the student does not upload the report until the due date, the student can wait for an extension. If the teaching assistant does not extend the due date for the report, the student directly gets an unsatisfactory grade. When the report is uploaded before the deadline, the report waits for a quality and format check by the teaching assistant to pass. If it does not fulfill the format criteria, teaching assistants can ask for revision, give feedback and wait for the student to fix the issues stated in the feedback. If a teaching assistant gives a passing grade, the grade form waits for the instructor to fill part B. If the instructor asks for revision, the student needs to upload the report again. If the student does not upload, the student fails directly. After the student uploads the report again and the instructor gives satisfactory grade, the system checks whether company form was delayed or not again. If the company form was delayed, the next step of the procedure is part A instead of part C. If the company evaluation form is not delayed, students will be waiting for results in part C. If scores in part C are above the minimum grade (threshold) needed to pass, the report is satisfactory, otherwise it is unsatisfactory.

# 3.5.5 User Interface

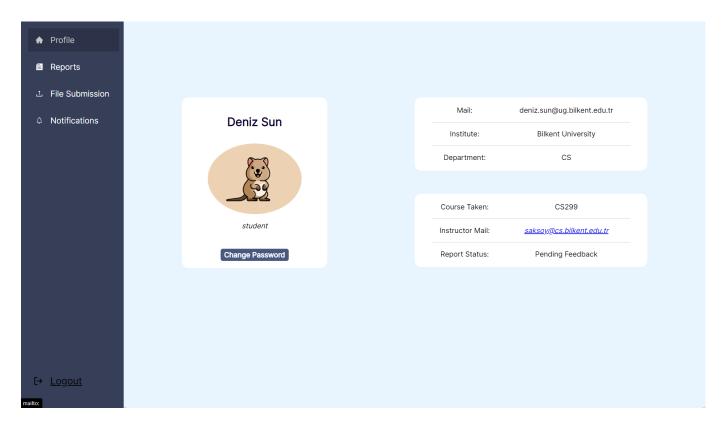
# Login page for all users



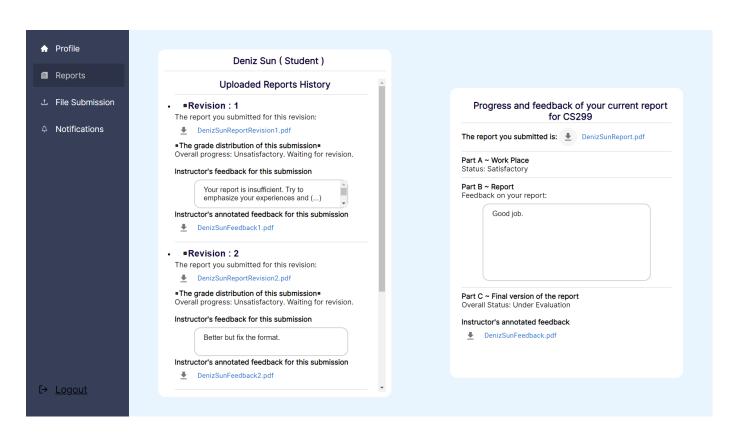
# Password Recovery page for all users

# Forgot Your Password? We will send you a link to recover your account via email. E-mail: Recover Password Know your login into? \*Login page

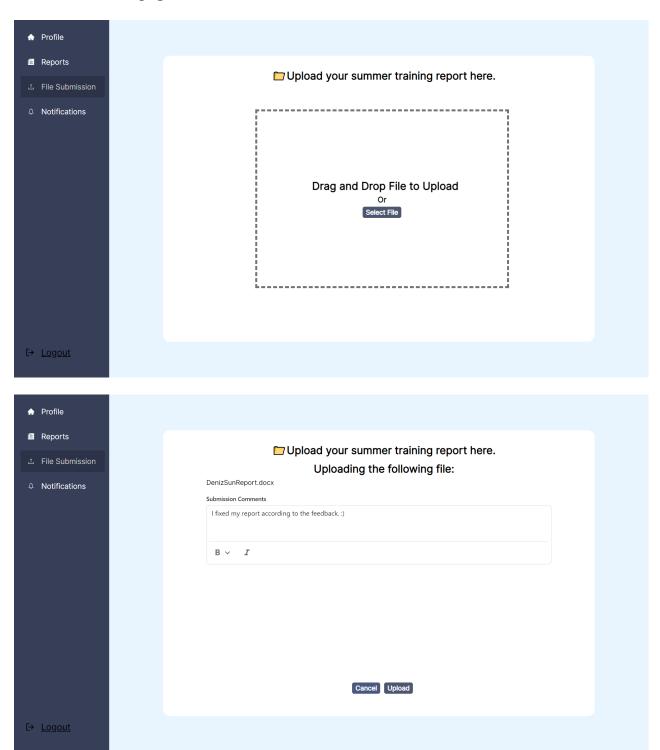
#### User profile page



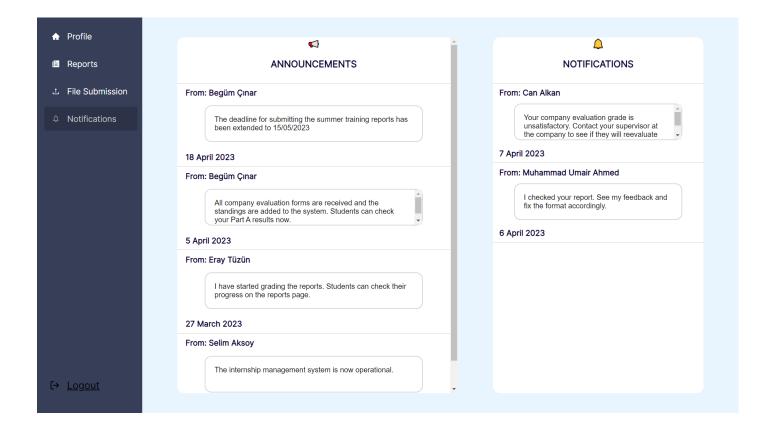
# Reports page for students



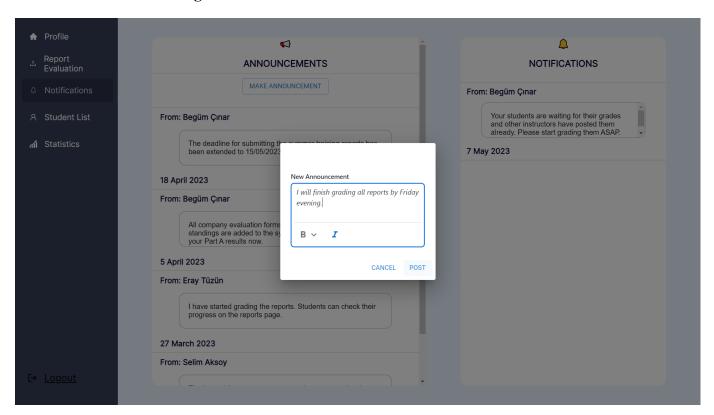
# File submission pages for students



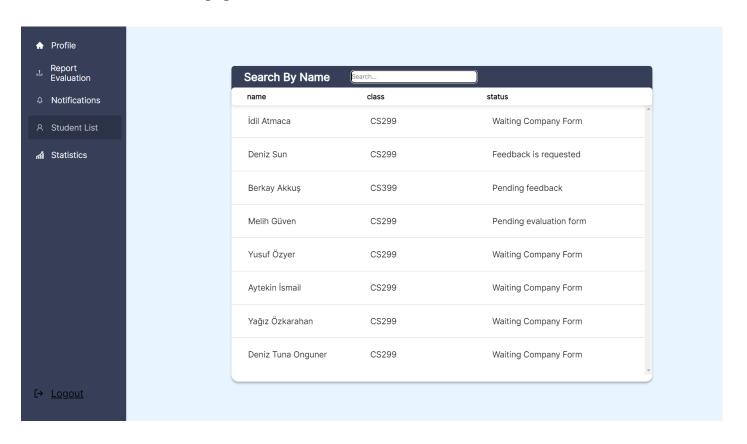
#### **Notifications for students**



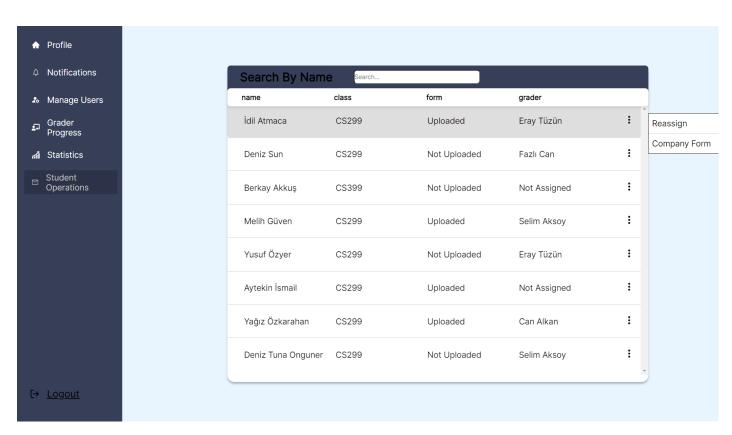
# Notifications and Make Announcement page for instructors, administrative assistants and summer training coordinators



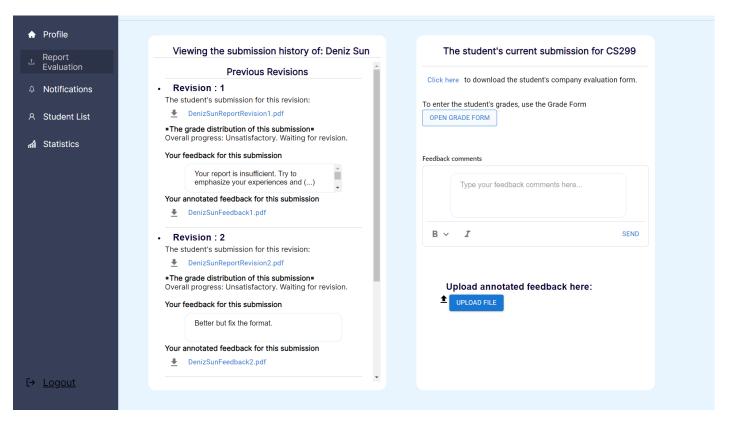
# Student list and status page for instructors



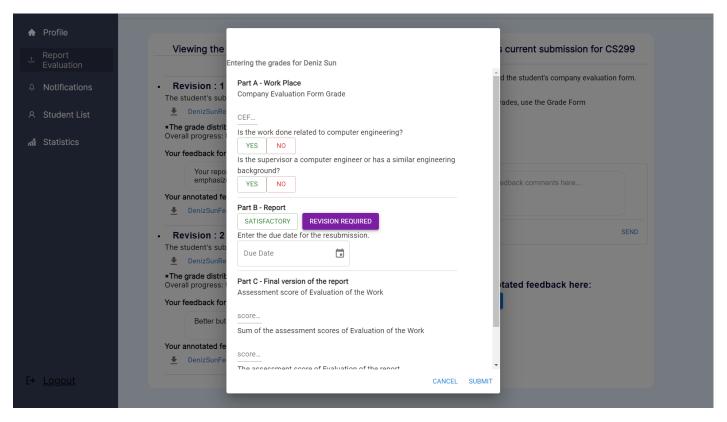
# Student operations page for administrative assistants



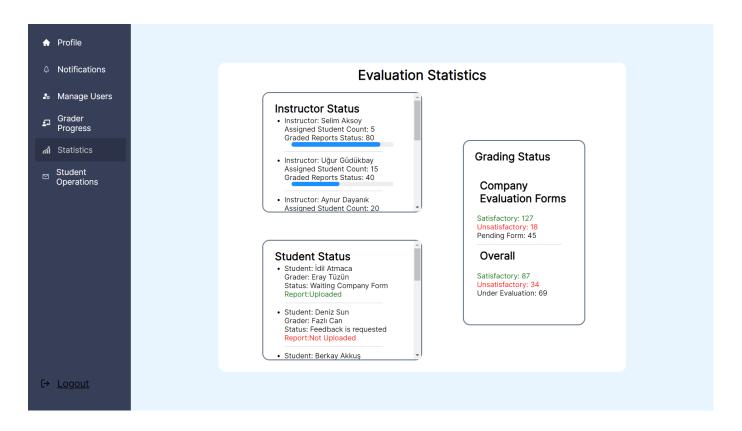
#### Reports evaluation pages for instructors



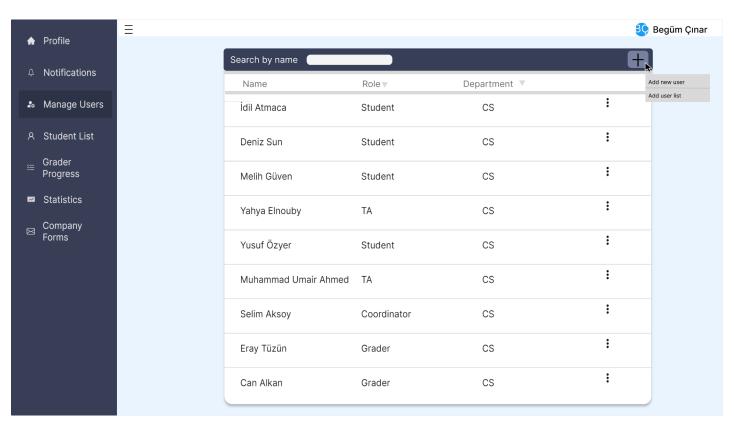
Instructor will enter the assessment scores on the Grade Form. If a revision is requested, the instructor will give a due date for the resubmission.



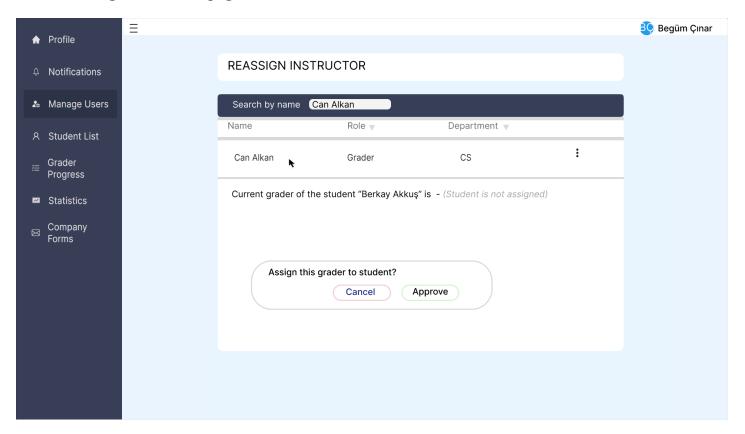
# Statistics page for administrative assistants, summer training coordinators and instructors



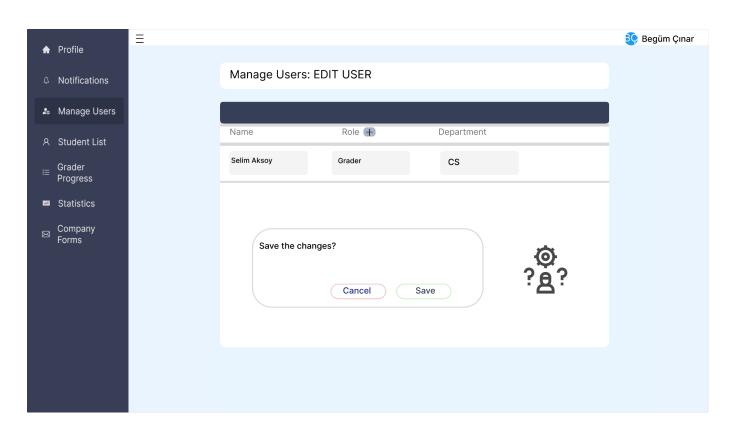
# Manage users page for administrative assistants and admin



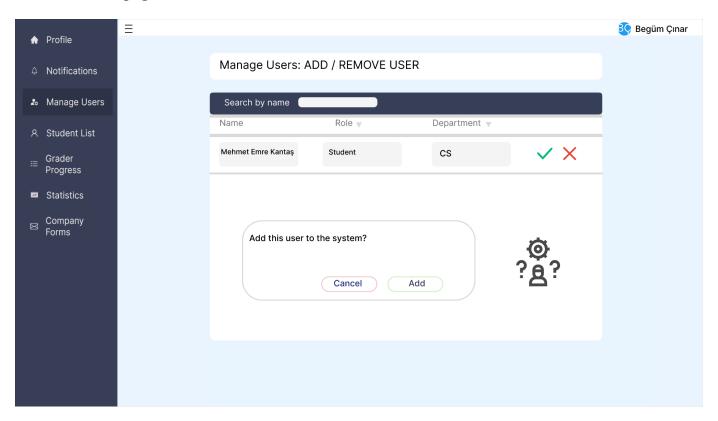
# Reassign instructors page for administrative assistants and admin



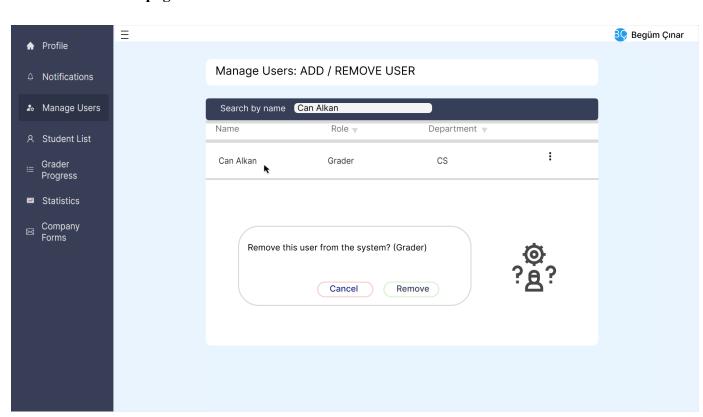
# **Edit User for Admin/Administrative Assistant**



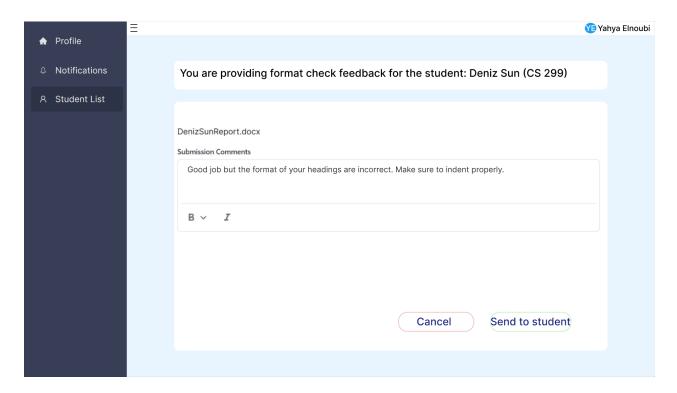
# Add users page for administrative assistants and admin



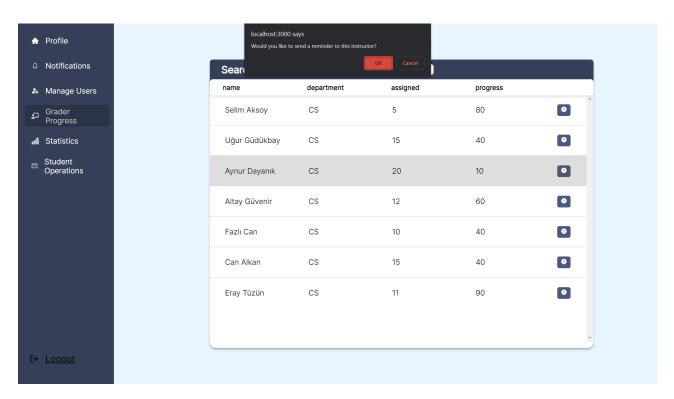
# Remove users page for administrative assistants and admin



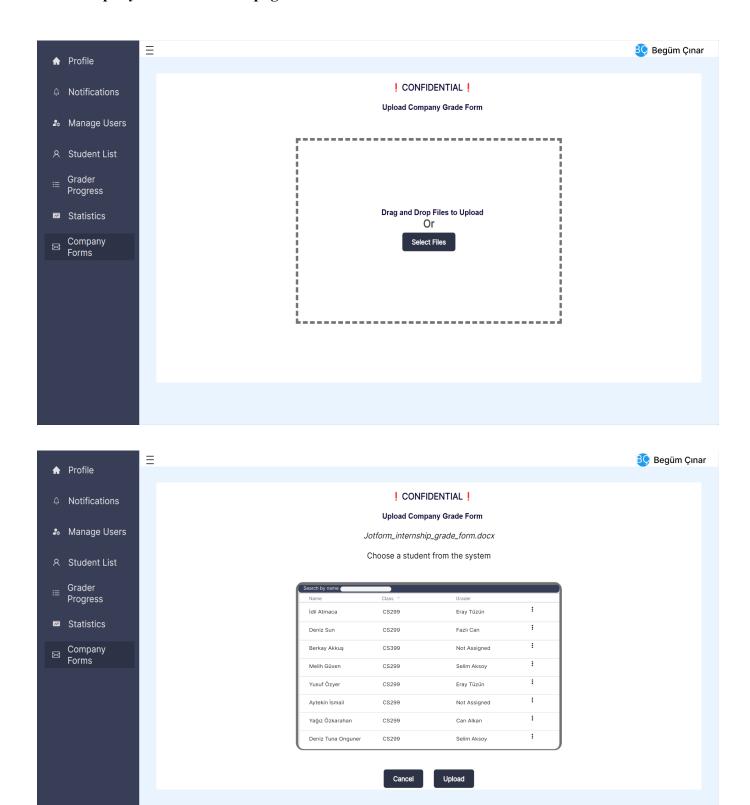
# Report checking and feedback page for teaching assistants



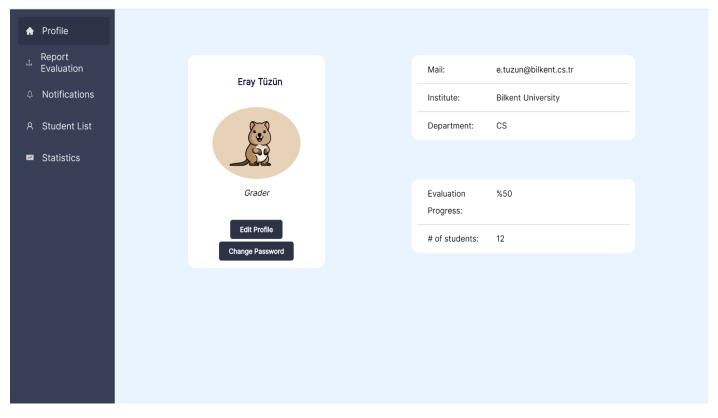
**Instructor progress page for administrative assistant and admin.** The button is for sending a reminder to any instructors that are lacking in evaluation progress.



# Company form evaluation pages for administrative assistants



# **User Profile for Instructors**



# Account selection for instructors with 2 roles

