

Cyberbullies	Version: 1.0.0
Software Design Description	Date: 01/05/2022

Cyberbullies

Software Design Description

1. Revision History

Version	Date	Author	Change Description
1	15.05.2023	Numan Kafadar	Initial version of the SDD document.
1.1	19.05.2023	Osman Faruk Derdiyok	Introduction part added. Determined Design Constraints and decisions added. User Interface Design scheme added. System Overview scheme added.

2. INTRODUCTION

2.1 Purpose and Scope

Software Design Description (SDD) is the process of creating a plan for a software system. It involves making decisions about the structure, components, interfaces, and behavior of the software. The goal is to transform requirements into an efficient and reliable design that can be implemented and maintained. This includes defining the system architecture, organizing modules or components, and specifying their relationships and interactions. Software design bridges the gap between requirements analysis and implementation.

It discusses over in thoroughness:

- ❖ Design model
- ❖ Design decisions and constraints,
- ❖ Interfaces and behavioral models of the interfaces,
- ❖ Class scheme,
- ❖ ER diagram,
- ❖ Sequence diagram,
- ❖ State diagrams

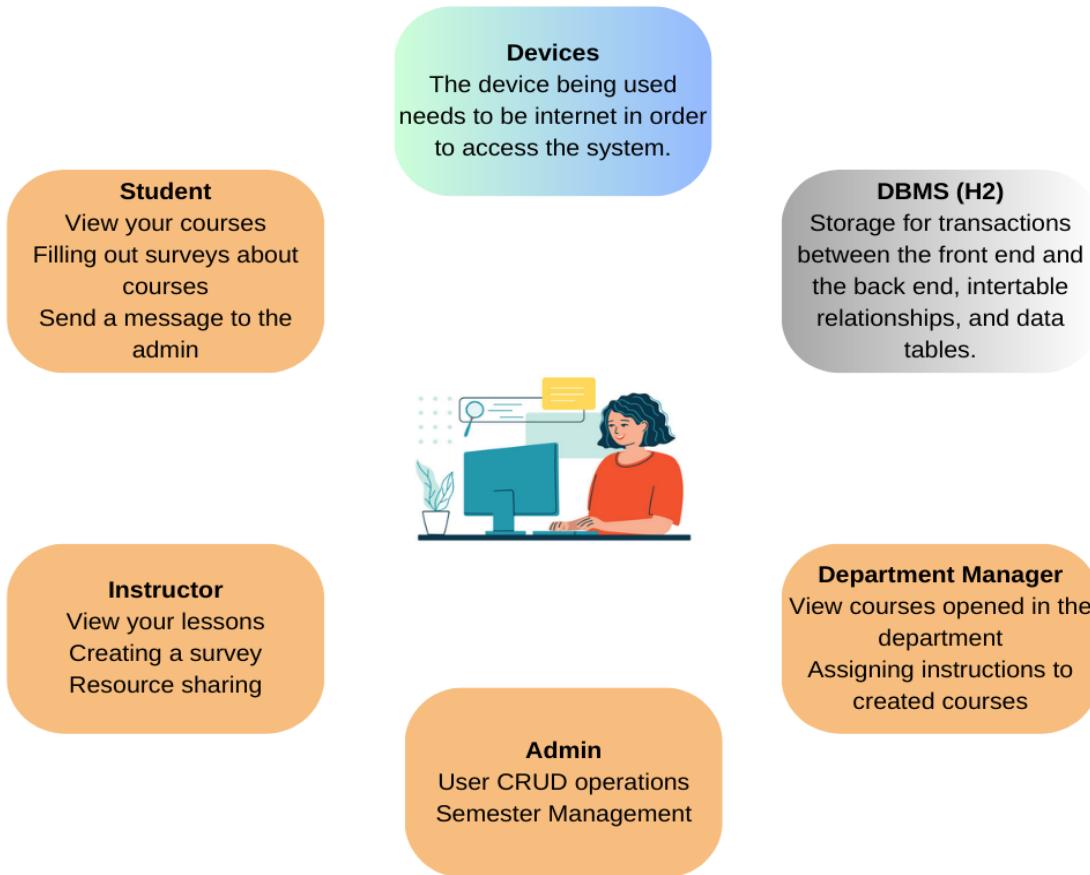
2.2 Document Overview

Listed below is a brief overview of the sections that follow:

- ❖ System Overview: It includes general system units, interactions, and what system users simply do.
- ❖ Definitions, Acronyms: Terms and acronyms used in documents.
- ❖ Design Constraints & Decisions: Constraints observed or defined during project design, and actions made in response to them.
- ❖ Design Details: Contains the diagrams we use in software development.

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2.3 System Overview



2.4 Definitions, Acronyms

Term / Acronym	Definition
SDD	Software Design Description
SRS	Software Requirements Specification
ERD	Entity Relationship Diagram
MVC	Model View Controller
GUI	Graphical User Interface
DB	Database

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3. Design Constraints and Decisions

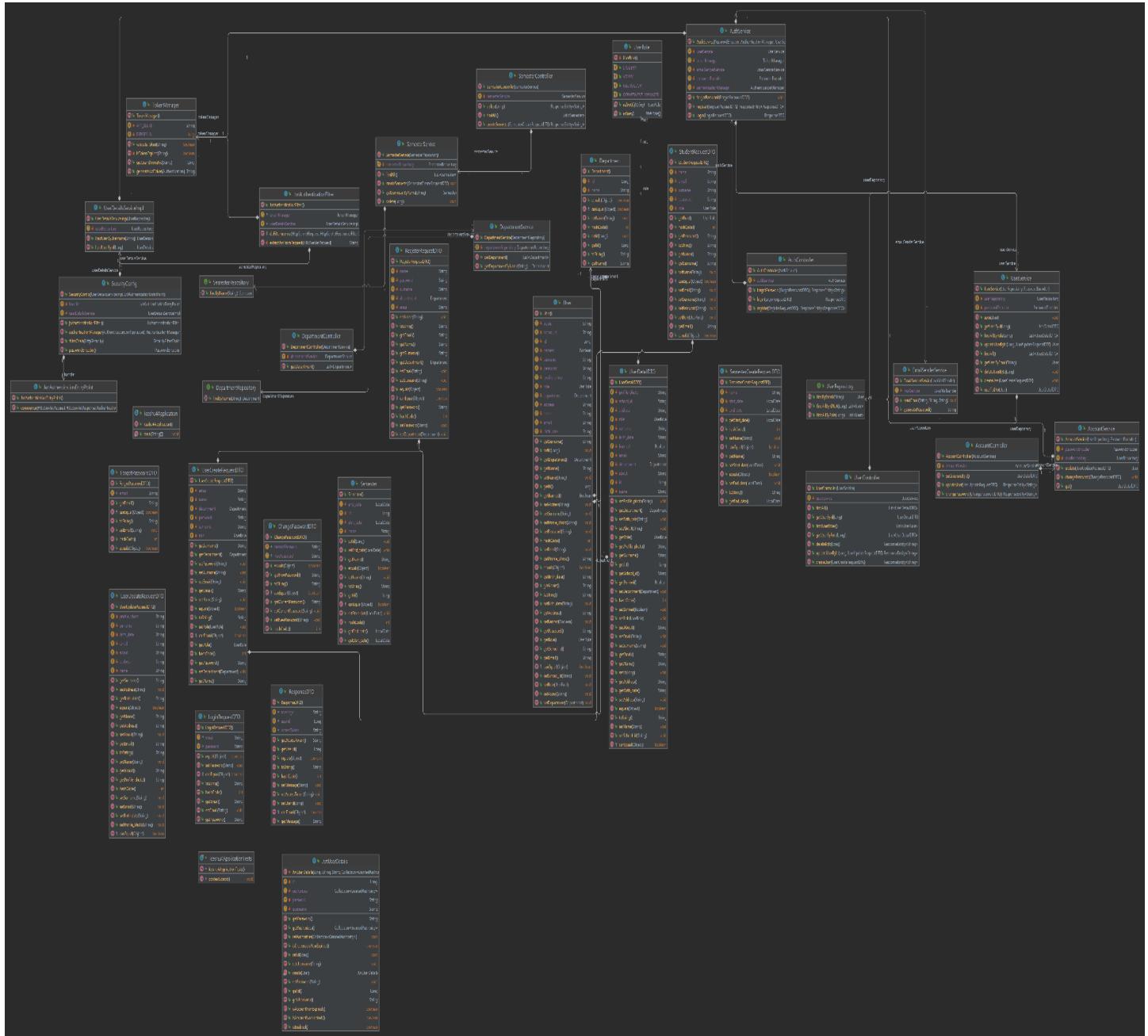
- We are using the Java Spring framework for building the project's backend.
- We are using Angular for developing the project's frontend.
- We use H2 as the database system but we will carry the db to PostgreSql.
- We use Spring Security and JWT for authentication and security.
- We use the MVC pattern for the project architectural model.
- We use the Git structure so that team members can navigate between project versions, create their own branches where necessary, create projects locally, and monitor the projects of team members instantly. We also use these processes on Github desktop.
- The tools we use while developing projects are IntelliJ, Webstorm, VSCode.
- The system must be connected to the internet because it is a web application.

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4. Design Details

4.1 Software Components

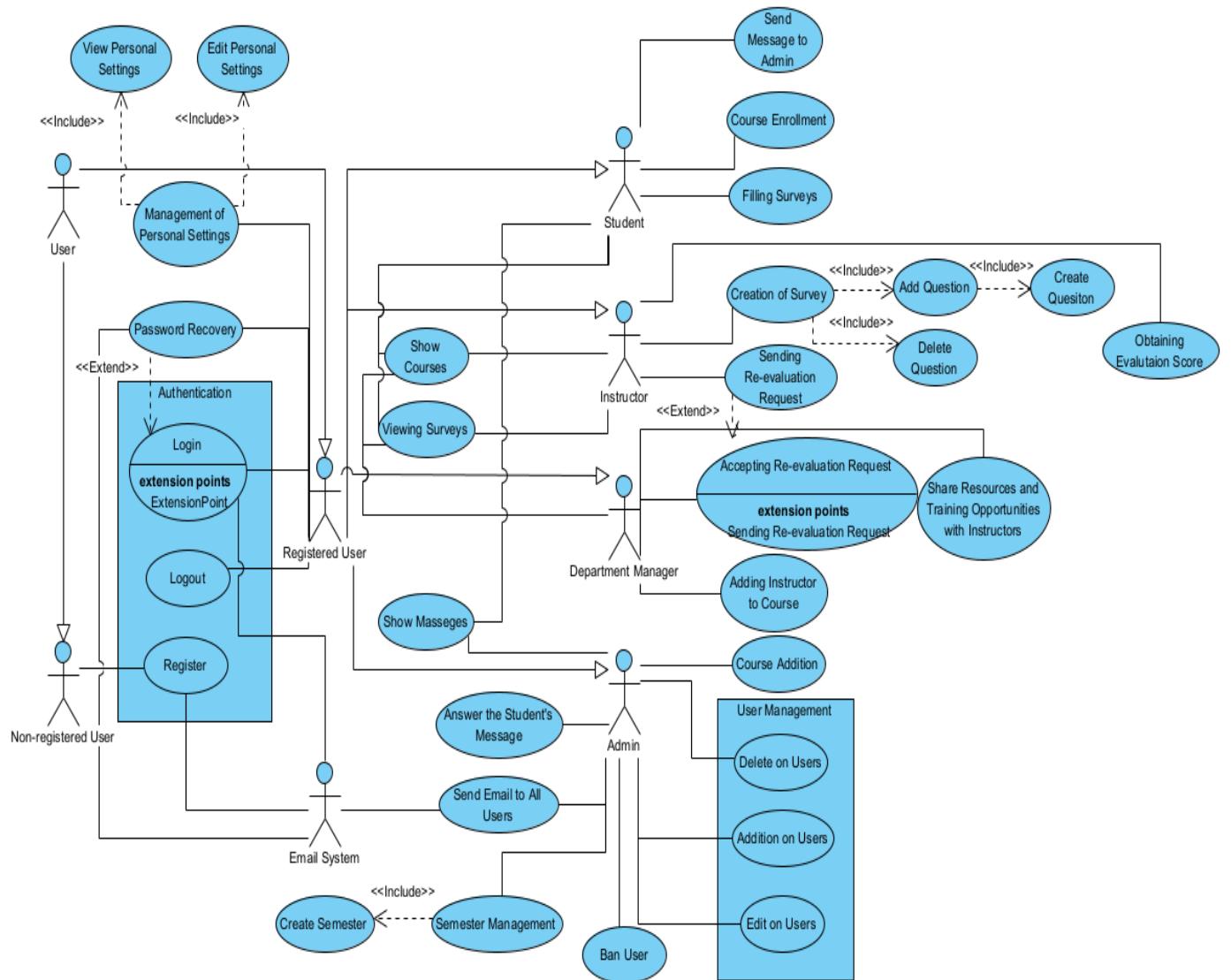
4.1.1 Class Diagram



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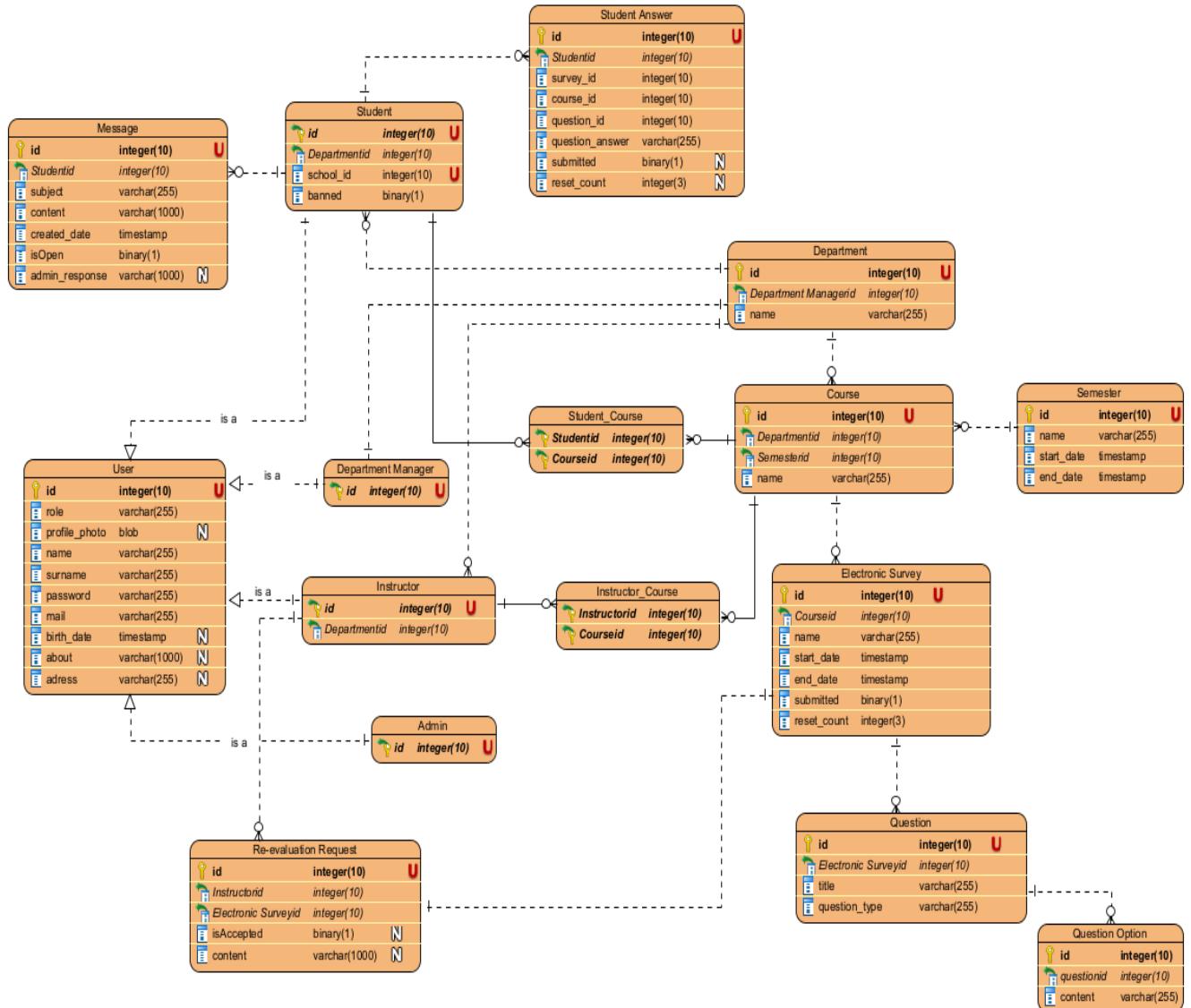
4.2 Software Behavior

Use Case Diagram



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4.3 Data Model (E-R Diagram)

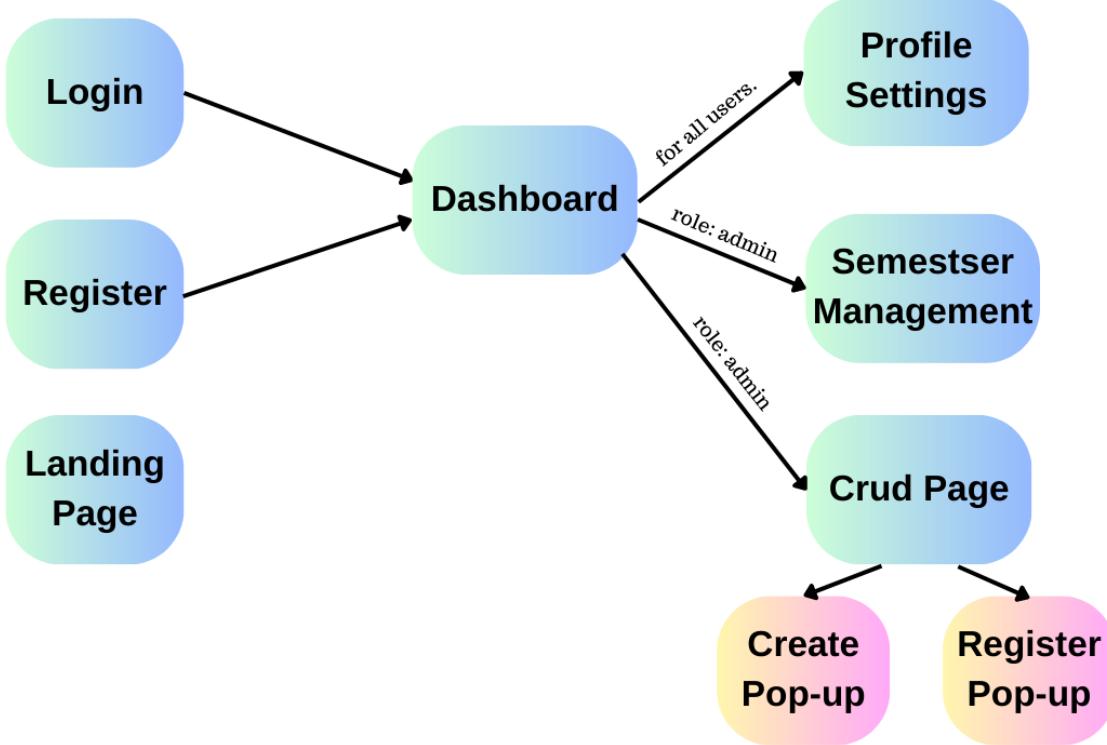


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4.4 State Chart Diagrams (Annexes A)

4.5 Sequence Diagrams (Annexes A)

4.6 User Interface Design



Interfaces are shown in this section. You can examine the information scheme about their routing between pages from the image above.

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Welcome to ICESHU4!

The innovative course-evaluation system designed to enhance the educational experience for both students and educators alike.

Course overview

- BBM101 Course Detail →
- BBM102 Course Detail →
- BBM201 Course Detail →
- BBM202 Course Detail →

Join Another Class

Apps

The cutting-edge course-evaluation system app that streamlines the feedback process and empowers users to improve the quality of their education.

Landing Page

Login

Don't have an account? [Sign up](#)

Email

Password
 [Forgot Password?](#)

Log in

Login Page

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Sign up
Already have an account? [Log in](#)

Name Surname

Email (Email address)

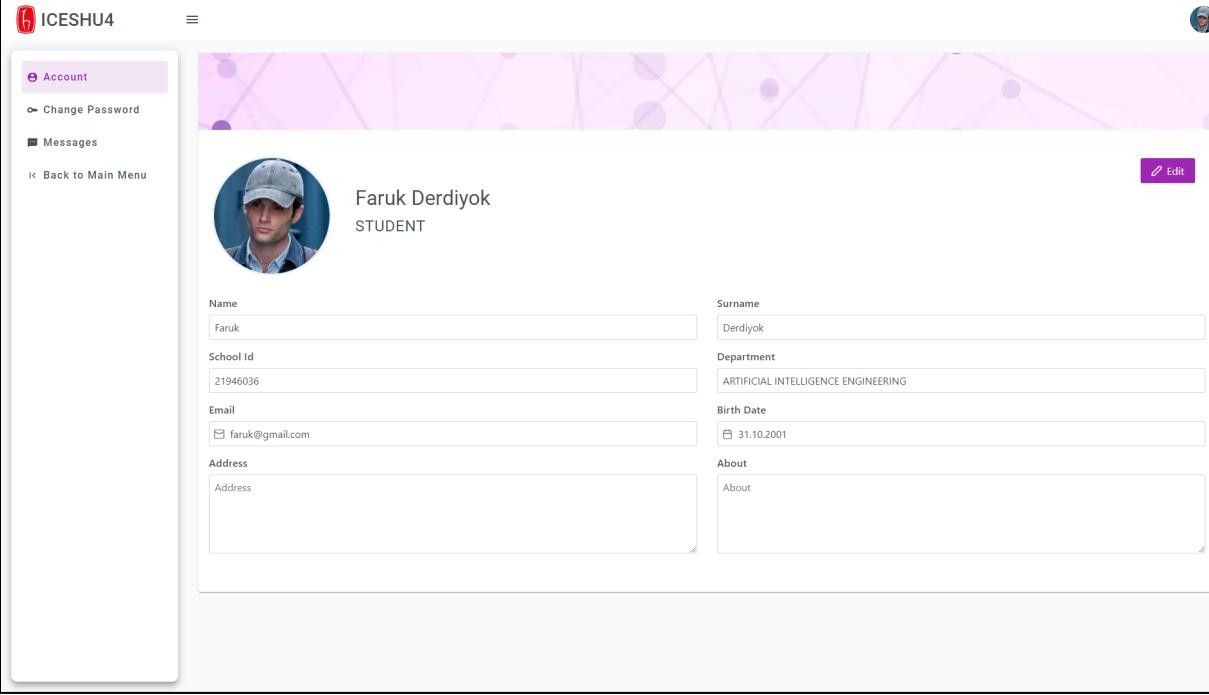
Department Select a department

Password (Password)

Confirm password (Confirm password)

Sign up

Register Page



Account

- Change Password
- Messages
- Back to Main Menu

Faruk Derdiyok
STUDENT

Edit

Name Faruk Surname Derdiyok

School Id 21946036 Department ARTIFICIAL INTELLIGENCE ENGINEERING

Email faruk@gmail.com Birth Date 31.10.2001

Address About

Profile Settings Page

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The screenshot shows a student's course page. On the left, there is a sidebar with the following navigation options:

- Dashboard
- Classes** (highlighted in pink)
- Forms
- About
- Help

The main content area is titled "My Courses" and displays a single course entry:

- BBM204: Algorithms Lablatory
- Evaluation Forms
- Watch >

In the top right corner of the main content area, there is a blue button labeled "+ Enroll to Another Course".

Student Course Page

The screenshot shows an administrator's user management page. On the left, there is a sidebar with the following navigation options:

- System Users
- Semesters
- Messages
- Ban Students

The main content area is titled "System Users" and displays a table of users:

Name	Surname	Email	Role	Department	Actions
Yunus	Terzi	yunus@gmail.com	STUDENT	COMPUTER ENGINEERING	
Numan	Kafadar	numan@gmail.com	STUDENT	MECHANICAL ENGINEERING	
Umut	Gungor	umut@gmail.com	STUDENT	ELECTRONICAL AND ELECTRONICS ENGINEERING	
Faruk	Derdiyok	faruk@gmail.com	STUDENT	ARTIFICIAL INTELLIGENCE ENGINEERING	
Cagri	Korkmaz	cagri@gmail.com	STUDENT	CIVIL ENGINEERING	
Rengoku	Kyojuro	rengoku@gmail.com	STUDENT	MECHANICAL ENGINEERING	
Tanjiro	Kamado	tanjiro@gmail.com	STUDENT	INDUSTRY ENGINEERING	
Eren	Yeager	eren@gmail.com	STUDENT	ELECTRONICAL AND ELECTRONICS ENGINEERING	
Kaneki	Ken	kaneki@gmail.com	STUDENT	ARTIFICIAL INTELLIGENCE ENGINEERING	
Mikasa	Ackerman	mikasa@gmail.com	STUDENT	CIVIL ENGINEERING	
Thorfinn	Karicafol	thorfinn@gmail.com	STUDENT	MECHANICAL ENGINEERING	

In the top right corner of the main content area, there is a green button labeled "+ Create User".

Admin CRUD Page

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The screenshot shows the 'System Users' section of the Cyberbullies application. A modal window titled 'Create User' is open, prompting for Name, Surname, Email, Role, Department, and Password. Below the modal, a list of existing users is displayed with columns for Name, Surname, Email, Role, Department, and Actions (Edit and Delete).

Name	Surname	Email	Role	Department	Actions
Kaneki	Ken	kaneki@gmail.com	STUDENT	ARTIFICIAL INTELLIGENCE ENGINEERING	
Mikasa	Ackerman	mikasa@gmail.com	STUDENT	CIVIL ENGINEERING	
Thorfinn	Kadlecini	thorfinn@gmail.com	STUDENT	MECHANICAL ENGINEERING	

Admin Crud Page - Create Pop-up

The screenshot shows the 'System Users' section of the Cyberbullies application. A modal window titled 'Update User' is open, prompting for Profile Photo Url, Name, Surname, Email, Birth Date, Address, and About. Below the modal, a list of existing users is displayed with columns for Name, Surname, Email, Role, Department, and Actions (Edit and Delete).

Name	Surname	Email	Role	Department	Actions
Kaneki	Ken	kaneki@gmail.com	STUDENT	ARTIFICIAL INTELLIGENCE ENGINEERING	
Mikasa	Ackerman	mikasa@gmail.com	STUDENT	CIVIL ENGINEERING	
Thorfinn	Kadlecini	thorfinn@gmail.com	STUDENT	MECHANICAL ENGINEERING	

Admin Crud Page - Edit Pop-up

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The screenshot shows a dark-themed web application interface for managing semesters. On the left, a sidebar menu includes 'System Users', 'Semesters' (which is selected and highlighted in purple), 'Messages', and 'Ban Students'. The main content area is titled 'Semesters' and displays a single entry for 'Spring 2023'. This entry includes the start date (16/02/2023) and end date (16/06/2023). A green button labeled '+ Create a Semester' is at the top right, and a pink button labeled 'Delete' is at the bottom right. A status message 'Ends in 27 days' is also present.

Semester CRUD Page

The screenshot shows a light-themed web application interface for viewing courses taught by an instructor. On the left, a sidebar menu includes 'Dashboard', 'Classes' (which is selected and highlighted in purple), 'Forms', 'Resources', and 'Re-evaluation Requests'. The main content area is titled 'My Courses' and lists a single course: 'BBM102: Introduction To Programming 2 Lablatory'. Below the course title are links for 'Evaluation Forms' and 'Watch >'. The user's profile picture is visible in the top right corner.

Instructor's Courses Taught

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5. Requirements Traceability

	Login	Register	Logout	Password Recovery	Course Enrollment	Management Account	Filling Surveys	Course Add	Semester Management	Create Survey	View Survey	Re-Evaluate Request	CRUD User	Send Message to Admin	Answer Student	Send Email	Ban User	CRUD Semester
Account Controller			X		X										X	X		
AuthController	X	X	X			X												
CourseController					X				X									
DepartmentController									X	X		X						
SemesterController									X									X
SurveyController							X			X	X							
MessageController														X	X			
RegisterView		X	X															
LoginView	X		X															
PasswordRecoveryView				X														
SemesterView					X													X
UserCrudView					X								X					
CourseView		X				X		X										
CourseDetailView			X															
MessageView				X										X				
MessageDetailView				X										X				
ProfileView			X			X												
ChangePasswordView		X			X													
BanUserView			X														X	
FormView		X					X			X	X							
FormDetailView		X					X			X	X							
Course				X				X										
Department								X	X			X						
Semester																		X
Survey							X			X		X						
User	X	X	X	X										X	X			X
Message																		

6. Annexes

- Annex A (Statechart_and_Sequence_Diagrams_Docs)

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7. Traceability Table

Traceability Table	Umut Güngör	Numan Kafadar	Mustafa Çağrı Korkmaz	Yunus Emre Terzi	Osman Faruk Derdiyok
Introduction					X
Design Constraints and Decisions					X
Software Components	X	X		X	X