#### İhsan Doğramacı Bilkent University



Department of Computer Engineering

## **CS319 Object Oriented Software Engineering**

**ProCheck** 

# Final Report

Group 1E

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#### 1. Introduction

In our application ProCheck, we managed to implement the Login, Sign Up, and Group Formation functionalities. Although the back-end was working properly and all the front-end files were implemented, we couldn't connect the remaining functionalities to the Front-end from Back-end. After noticing that it will not be finished by the deadline we changed our design and implemented it using GUI to make a desktop application. we have finished the functionality requirements in java and connected them with the database, our design of front-end and the UI changed due to switching from Web application to Desktop.

## 2. Lessons Learnt

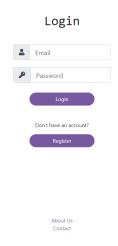
Throughout the implementation, we have used the tools that we have never used before. This lack of experience became challenging especially during the implementation stage. These tools were MongoDB, Spring Boot, and ThymeLeaf. After a long learning stage, we had to adapt our class diagram and implementation accordingly and changed our design. Since MongoDB does not accept nested object attributes that are in each other since this will create an infinite loop within objects while storing the objects in the database, we have adapted our implementation and changed some attributes in several classes. We arranged so little time for making the connection between our Front-end and back-end and learnt that we shouldn't underestimate the Front-end and the connections between them. We switched our project from being a web based application to Desktop (using GUI) and redesigned it in a very short time. The reason for that is, we noticed that we will not be able to connect the back-end and front end during the allocated time. Fortunately, We managed to finish it in a very short time which was

challenging for us. We noticed that estimation and time allocation for each stage of the project is a crucial stage which should be planned diligently and applied during each stage. We would use tools such as JIRA in our future projects in order to prevent such a thing from happening.

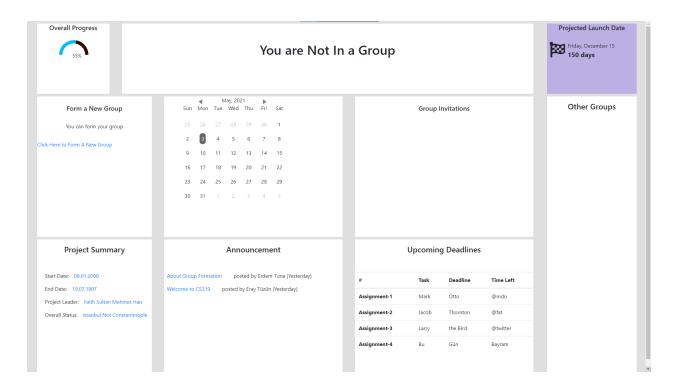
## 3. User's Guide

#### Website





Users can login and register using this screen.



Although there are many functionalities in this dashboard screen, users can only see the correct calendar and form their own group using the dashboard.

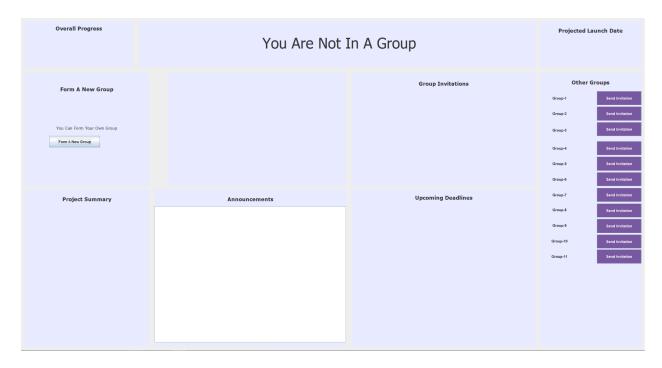
## Desktop



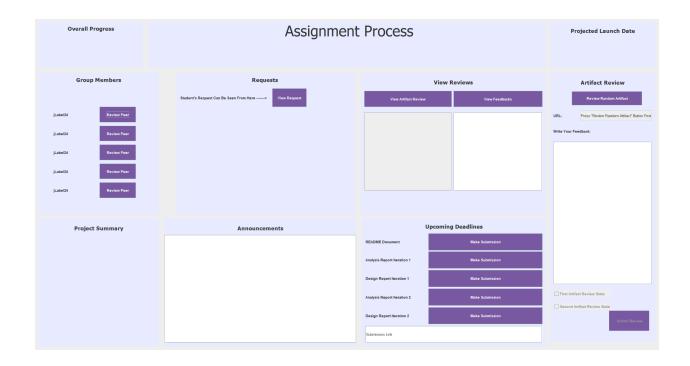
Users can login using the login screen.



Users can register to the system using this screen.



Students with no groups can create their own group, or send an invitation to already existing groups.



Students can use this dashboard to do several functions. View their group members, view the requests sent to the group, get a random artifact and submit a review to it, view their feedback and reviews to artifacts from other groups, make submission to the assignments using the text frame to paste the link and submission button to submit it, and view the announcements to whole class.

Overall Progress		CS 319			
Manage Project  Generate Random Gr  Add Announcement  Announce To A Group	Announcement 1  Announcement 1  Announcement 2  View Announcement  Announcement 3  View Announcement  Announcement 4  View Announcement  View Announcement  View Announcement  View Announcement  View Announcement		Assignment 1: 90 Assignment 60 Assignment 3: 70 Assignment 4: 85 Assignment 5: 65	Grades  View Submission List   Assignment  Create New Assignment  Start Date  End Date  Cor  Artificit Review Deatline	
Project Summary  Start Date :	Submissions  Group 5's Submission For Assignment 4 View Give Feedback Grade View Arthoc Reviews		Current As: Assignment 1 Deadl	<b>signments</b> line: 12/04/2020	Day Morth Year  Assignment Title  Assignment Weight
01.10.2021  End Date:  05.01.2022	Group 5's Submission For Assignment 4 Vew Gave Feeth Group 5's Submission For Assignment 4 Vew Gave Feeth Group 5's Submission For Assignment 4 Vew Gave Feeth Group 5's Submission For Assignment 4 Vew Gave Feeth	ck Grade View Artifact Reviews ck Grade View Artifact Reviews	Assignment 3 Deadl	line: 13/04/2020 line: 14/04/2020 line: 15/04/2020	organica regin
Project Leader : Eray Tüzün	Group 5's Submission For Assignment 4 Vew Give Feedb	tk Grade View Artifact Reviews	Ť	line: 16/04/2020	Create Assigner.

Instructors can use this dashboard to do the following functionalities: view groups' submissions and give feedback to them, grade them, and see the artifact reviews done to them by other groups. Instructors can see the deadlines of the assignments, and edit those assignment properties. Instructors can also view the average grades of the assignments and also see the whole submissions done to these assignments.

## 4. Build Instructions

#### Desktop

#### 4.1. Minimum System Requirements

• Dependencies: JDK 16

• Supported OS: Windows, MacOS.

#### 4.2. Build gradle

• We used **IntelliJ** as our **IDE**, you can download it from:

https://www.jetbrains.com/idea/download

- If no **JDK 16** is available, download a **JDK 16** distribution and unpack.
- Open the source code from an IDE as "import project".
- Build and run the project.

#### Website

#### 4.3. Build

- Have IntelliJ installed in your computer:
   <a href="https://www.ietbrains.com/idea/download">https://www.ietbrains.com/idea/download</a>
- Open the source code in IntelliJ and build it.
- Run the code
- The server must be running on <a href="http://localhost:8080/loginPage">http://localhost:8080/loginPage</a>
- You can either sign in using an email and password which exists in the database or register a new account into the system.
- The **instructor** and **TA's** will have a predefined and hard coded account.

## 5. Work Allocation

#### Gökhan Taş

- Analysis Report: Use case diagram, state diagram, application domain class diagram.
- **Design Report**: Solution domain class diagram.
- Implementation: Web application HTML pages, web application CSS files, desktop application front end and back end connections, JavaScript functions, database implementation.

#### Lara Fenercioğlu

- Analysis Report: Sequence diagrams, application domain class diagram, state diagram.
- Design Report: Subsystem decomposition diagram, solution domain class diagram.
- Implementation: Back end Java algorithms, desktop and web application front end and back end connections, database implementation.

#### Kimya Ghasemlou

- Analysis Report: Sequence diagrams, application domain class, state diagram.
- Design Report: Subsystem decomposition diagram, solution domain class diagram.
- Implementation: Java classes, function algorithms.

#### Sebahattin Utku Sezer

- Analysis Report: Use case diagram, state diagram, application domain class diagram, activity diagram.
- Design Report: Solution domain class diagram.
- Implementation: Web application HTML pages, desktop application user interface designs, back end Java algorithms, back end Java classes.
- Others: Trailer video edit.

## Bedirhan Sakinoğlu

- Analysis Report: Use case diagram, state diagram, application domain class diagram.
- Design Report: Solution domain class diagram.
- Implementation: Web application html pages, desktop application dashboards,
   algorithms, Java Classes, GUI Functionalities.
- Others: User Interface Designs.