Bilkent University



Department of Computer Engineering

CS319 Term Project

Section 1

Group 1C

Project Final Report

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1. User Manual

1.1 Manual for all User Types

ClubVerse is a web based application project for CS319. It is designed for students, club directors, and faculty advisors at university. This project aims to provide an effective implementation of a club manager for all users, making it far easier to arrange and attend the club activities and follow a particular club.

This part is for all user types. Please read this part first and go to the specific manual for different user types.

1.1.1 Registration System

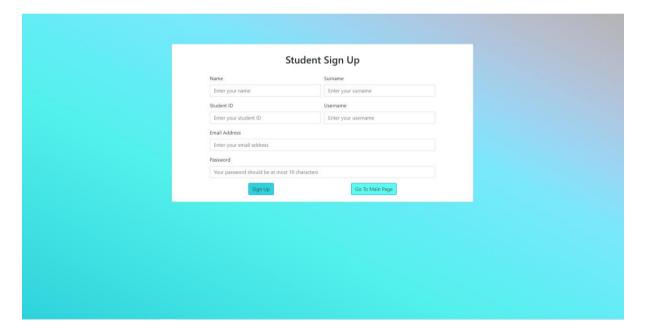


Figure 1.1.1: Student Signup

Students can create an account by using their Bilkent Mail. We are checking if the given mail is a Bilkent Mail and if the StudentID has eight digits. We are checking the uniqueness of mails, Student IDs, and usernames.

As our system is designed to check validations of clubs and faculty advisors to leave University, club directors and faculty advisors registration are handled by admin type of users.

1.1.2 Login

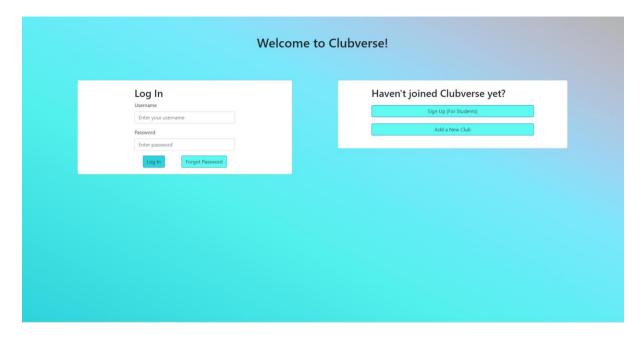


Figure 1.1.2: Login

Users can login to the system by using their username and password. If the credentials are true, users will be redirected to their homepage, otherwise they will get an error message.

1.1.3 Customized Navigation Bar

We implemented different navigation bars for each user type to help them to use the flow of implemented use cases for user types better.

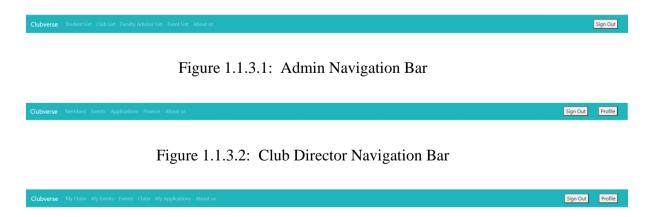


Figure 1.1.3.3: Student Navigation Bar



Figure 1.1.3.4: Faculty Advisor Navigation Bar

1.1.4 Profile

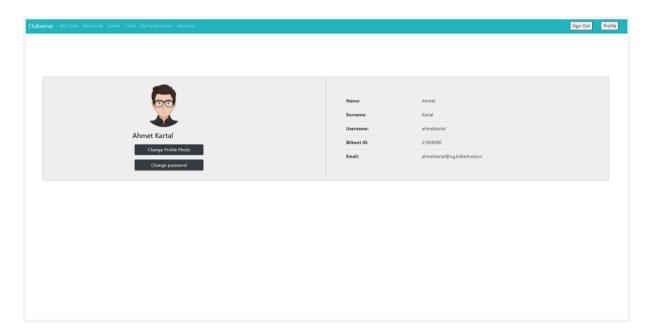


Figure 1.1.4.1.: Profile

From the navigation bar's profile section users can go to the profile page of their account. In there they can see the profile information and change the password and profile photo if they want to change.

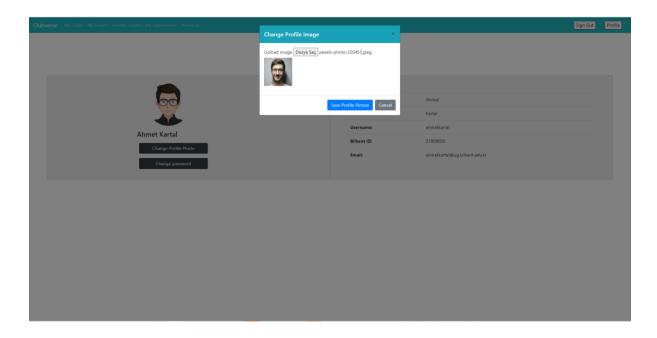


Figure 1.1.4.2: Profile Changing Profile Pciture

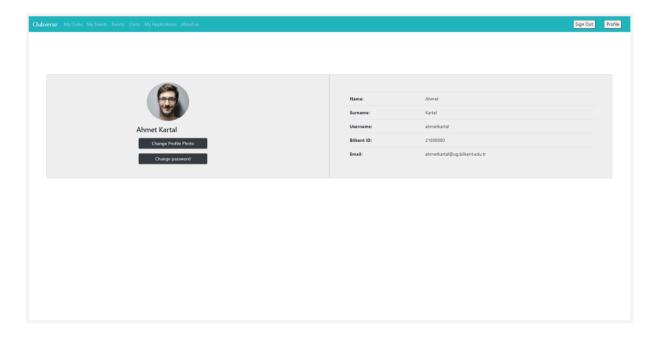


Figure 1.1.4.3: Changed Profile

Users can change their profile photos. They just need to choose an image file from their device.

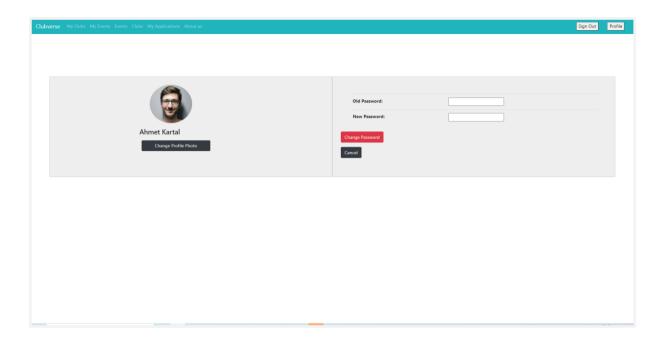


Figure 1.1.4.5: Change Password

Users can change their password by entering both their valid password and their new password.

1.1.5 About Us

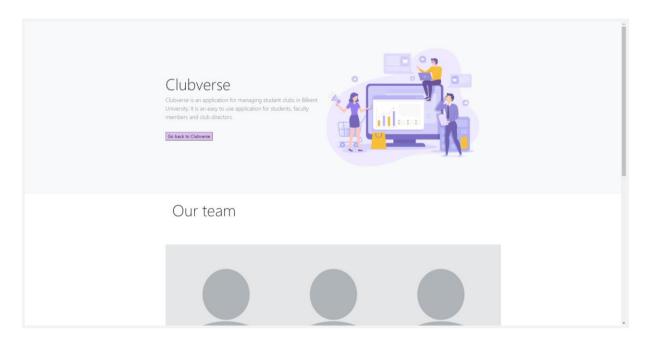


Figure 1.1.5: About Us Page

From the navigation bar's "About Us" section users can go to the About Us page and learn about our team.

1.2 Manuals For Specific User Types

1.2.1 Admin

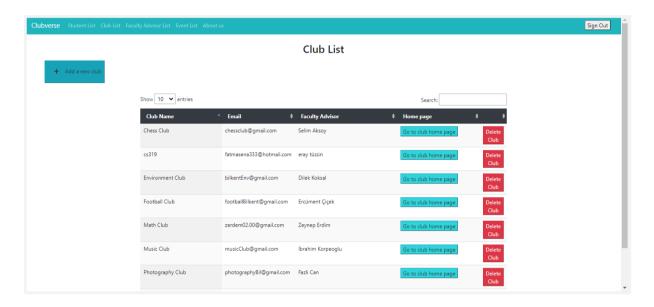


Figure 1.2.1.1: Admin Club List

Admin users can see all Club List as their home page. They can go and see the home pages of the clubs and delete a club from the list and more importantly create a club.

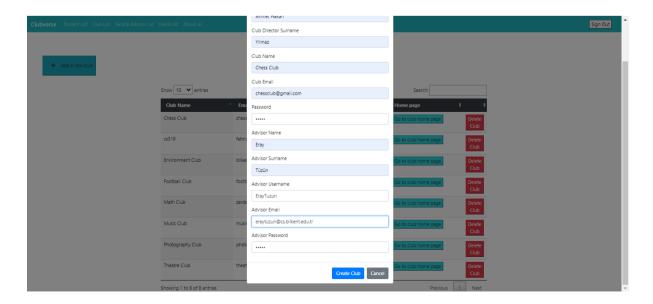


Figure 1.2.1.2: Admin Club Add

When creating a Club, admins should enter the information of the Club Director and Faculty Advisor so that a Club Director account with username as Club name and password written there will be created. Similarly, a Faculty Advisor account with the given username and password will be created. After that, the credentials of these accounts will be sent to the email address written there.

An example Mail

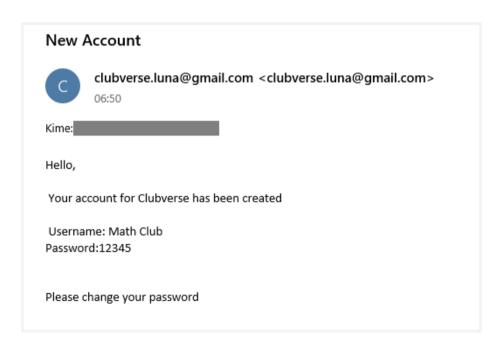


Figure 1.2.1.3: Example Mail of Account Created

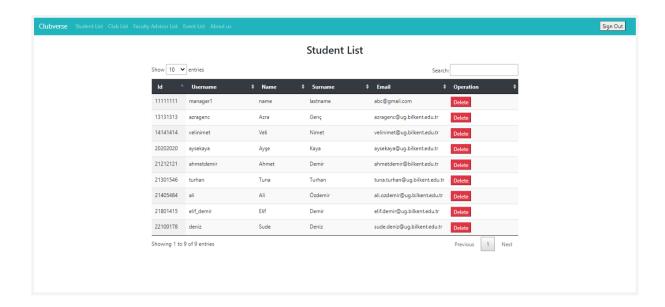


Figure 1.2.1.4: Admin Student List

Admins can see the list of the students.

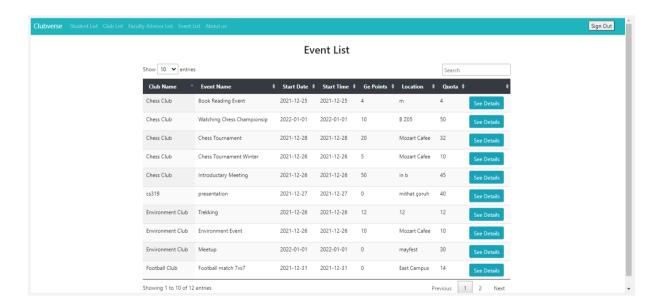


Figure 1.2.1.5: Admin Event List

Admins can also see all events that entered the system and go to their homepage to see details of the event.

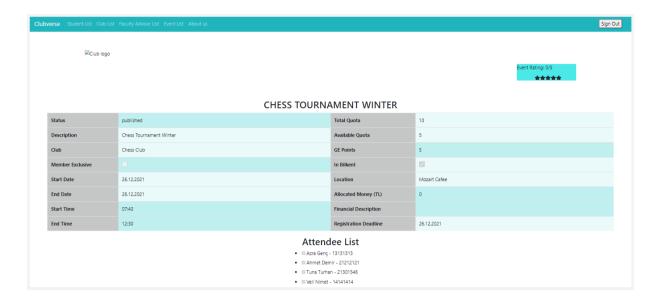


Figure 1.2.1.6: Event Home Page for Admin

Admin can see the details and the attendance of the events on the event homepage so that if something goes wrong with GE points, they can come and verify attendances.

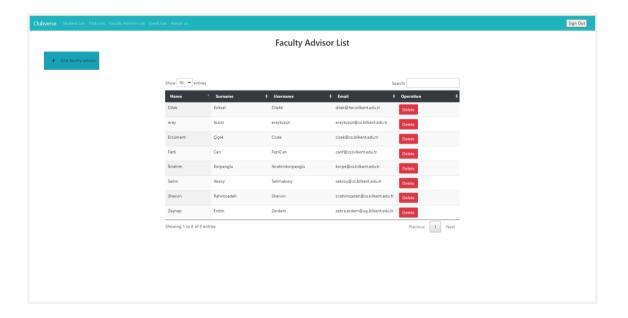


Figure 1.2.1.7: Admin Faculty Advisor List

Admins can see the list of the Faculty Advisors in the system.

1.2.2 Student

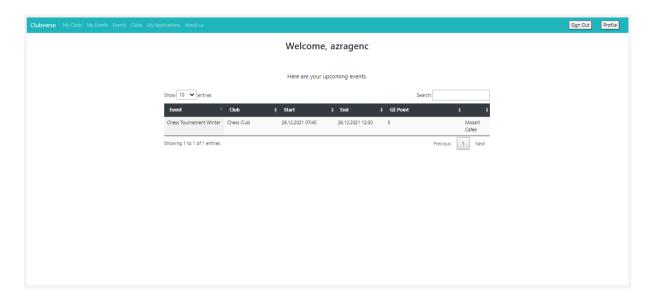


Figure 1.2.2.1: Student Home Page

After a student user has logged in to a student account they will be welcomed by the home page of the student which lists the enrolled events which are future or in ongoing situations.

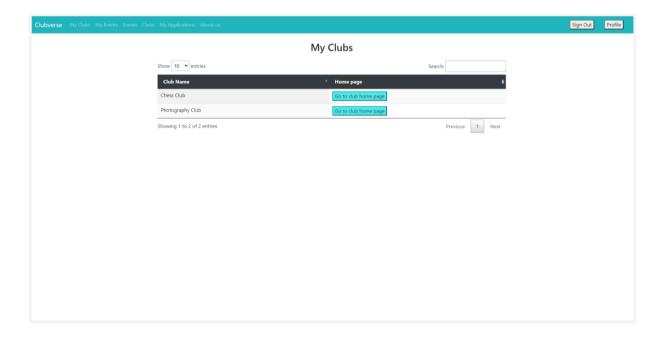


Figure 1.2.2.2: Student My Clubs

From the navigation bar, students can go to the "my clubs" page. They can see all the clubs you are a member of. They go to their home pages from there.

As one of the most innovative features of our application, when students go to the home page of the club they are members of, they can see the button of the permissions they are given. From these buttons, they can go to manage the thing you have permission for.

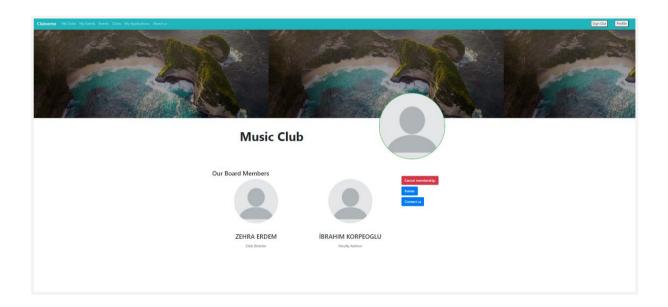


Figure 1.2.2.3: Club Home Page for Members

As an example when the student does not have any permission they will see the home page as above. They can see the events of this club or see the contact us pop up. They can also cancel their membership.

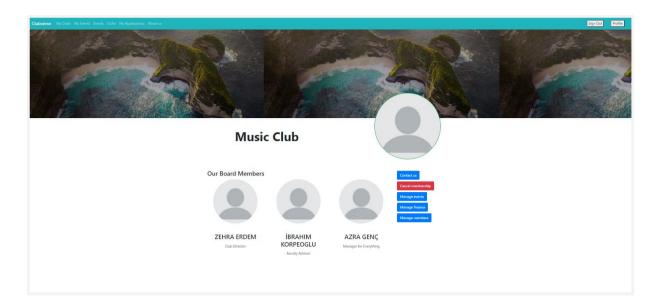


Figure 1.2.2.4: Club Home Page for Member with Permission

We have predefined three permission and three additional buttons that will direct to managing pages for specific permission. According to the student user's permissions in that club, these buttons will be visible or not. Giving permissions can be done by just the club director of this club.

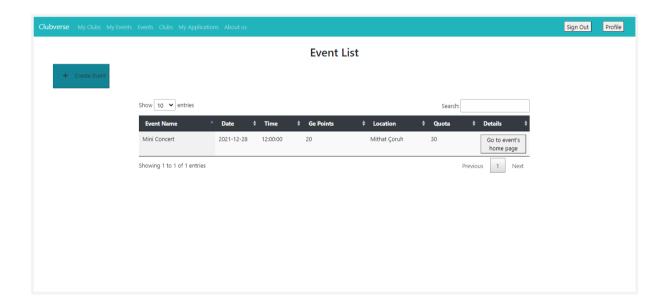


Figure 1.2.2.5: Student Event List

If a student has Event Management permission they will see the Manage Events button. When they click this button this will redirect the user to a page like above. From there they can

create an event or when they go to the home of an event, you can edit or update the status of the event. Moreover, if the event is held they can also take attendance from the enrolled students to that event.

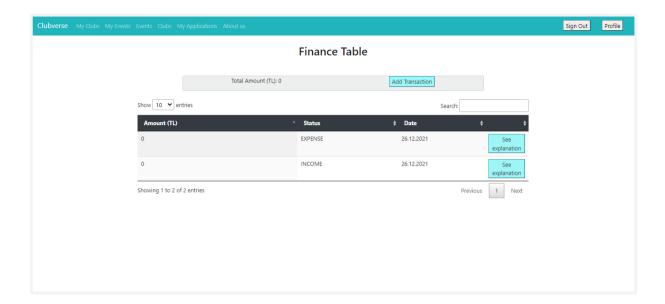


Figure 1.2.2.6: Finance Table for Member with Permission

If a student user has Finance Management permission, they will see the Manage Finance button. When they click this button this will redirect them to a page like above. From there they can see the financial status of the club and add transactions.

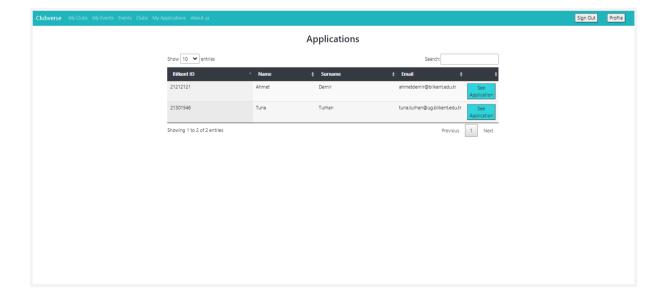


Figure 1.2.2.7: Application Review Page for Member with Permission

If a student user has Member Management permission, they will see the Manage Members button. When they click this button this will redirect them to a page like above. From there they can see applied students and their applications. They can accept or reject them.

Details of what happens after coming to these three management pages will be explained in part 1.2.4 Club Directors and Club Managers(Students).

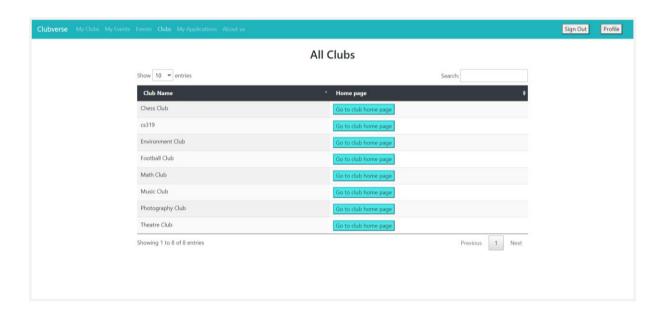


Figure 1.2.2.8: Student All Club List

Students can see all clubs as well from the Clubs button in the navigation bar. From there they can go to the Club Homepage of the clubs.

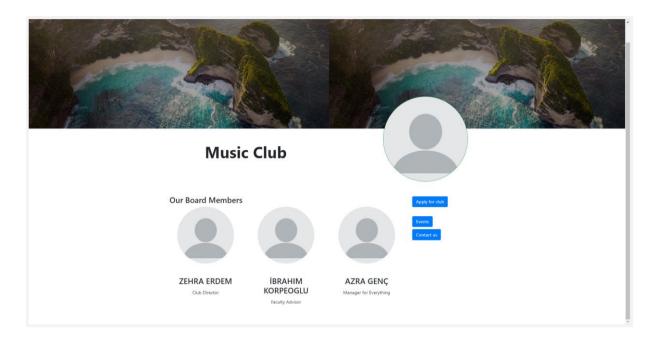


Figure 1.2.2.9: Club Home Page for Non Members

If a student user is not a member of this club you will see the homepage like above. They can still see the events of this club. When they apply to the club, if the club requires them to fill a form, they will be directed to a form and required to fill it. If no application is specified for the club, they will be directly a member of this club.

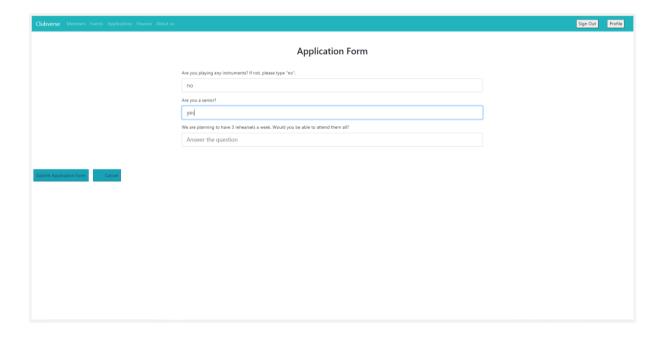


Figure 1.2.2.10: Application Form

This is an example application form that they will be redirected to. Questions are club customized and updated by the director. After submitting the form they can see the status of the form from My Applications.

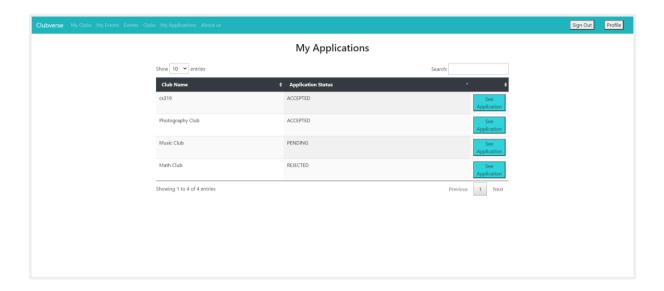


Figure 1.2.2.11: Student My Applications

Students can go to their applications from the navigation page by clicking My Applications and they can see their applications and their status on that page. The status can be pending, accepted, and rejected. They can see the club in My Clubs if their application status is accepted.

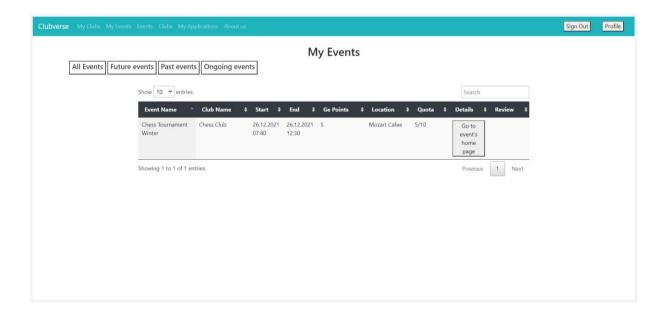


Figure 1.2.2.12: Student My Events

Students can go to the My Events page from the navigation bar. On my events page, students can see all the enrolled events. The enrolled events are separated into three parts, future, which has not started yet, ongoing, which started but not finished, and past events, which finished. They can filter these events according to these three types. In addition, from the search bar, they can search specific words that can be found in the table for example club names or event names.

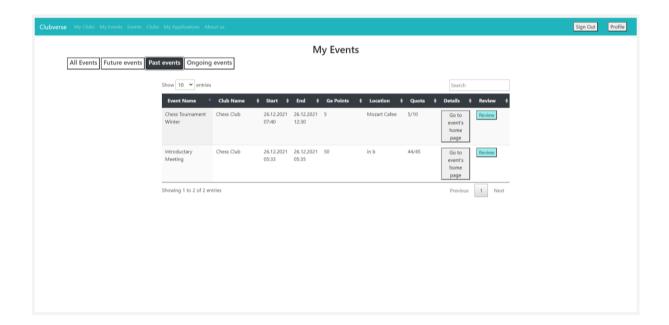


Figure 1.2.2.13: Student My Events Filtering

In the past events section, if they have attended the event, they can review that event.

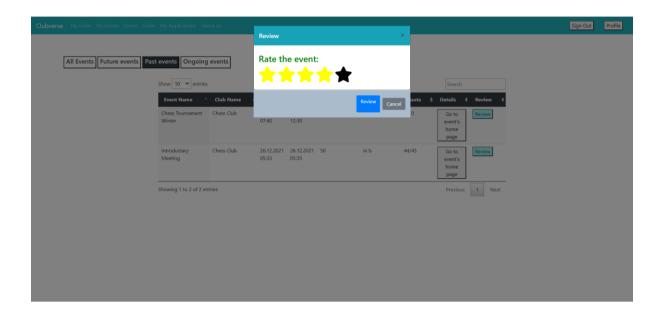


Figure 1.2.2.14: Review Event

Students can give a point out of 5 for a past enrolled and attended the event.

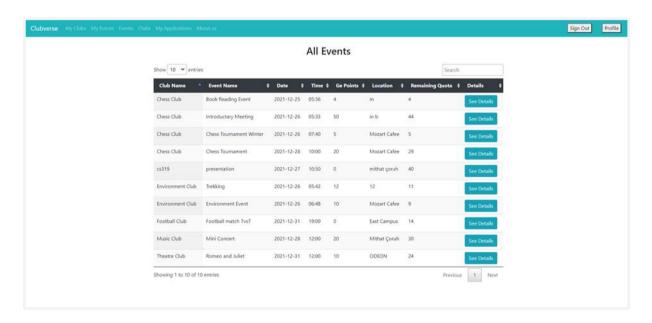


Figure 1.2.2.15: Student All Events

Students can see all events from the Events button in the navigation bar. By clicking the "See details" button, they can go to the home page of an event.

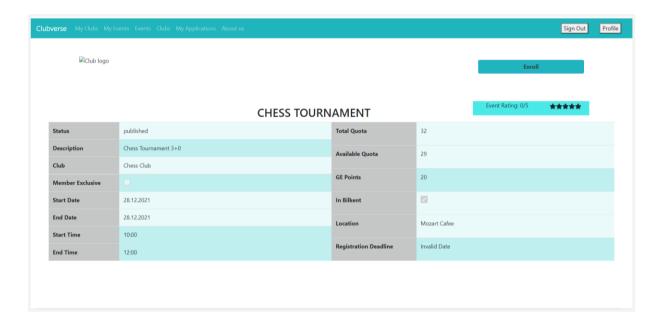


Figure 1.2.2.16: Student Event Home Page for unenrolled event

If the event is an event a student has not enrolled in and is available for the student, they will see the enroll button. By clicking this button they can enroll in the event.

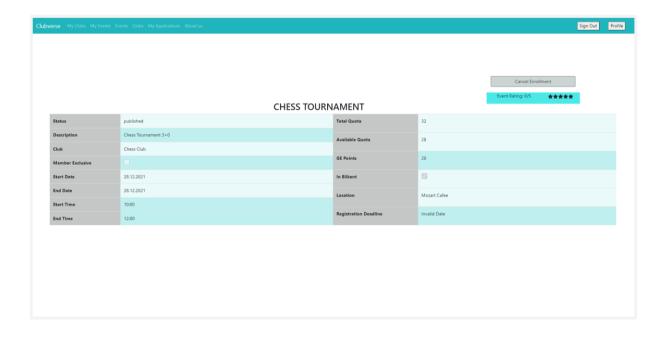


Figure 1.2.2.17: Student Event Home Page for Unenrolled Event

If the event is one of the events that a student has already enrolled in, they will see the cancel enrollment button and they can cancel their enrollment from there.

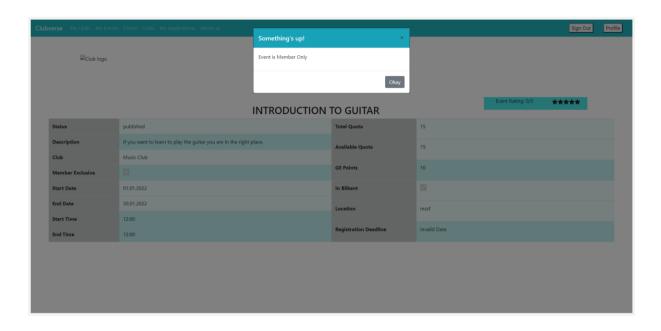


Figure 1.2.2.18: Student Event Home Page Warning

In some cases, both enroll and cancel enrollment buttons are not visible. Examples of these cases: if the event is a member-only and a student is not a member of the club that is holding the event, or if the event is canceled, or if the registration deadline of the event has already passed. As shown in the figure above, they will see a notification if any of these three cases occur.

1.2.3 Club Director

Club Director will see the club home page for the club. On that page, they can edit their club's description, profile photograph, and background photograph for other users to see the attributes of the club.

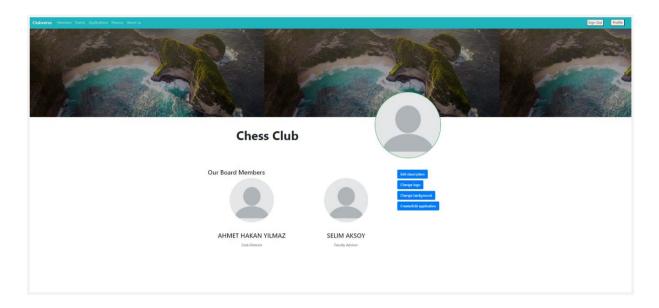


Figure 1.2.3.1: Home Page of Club Manager

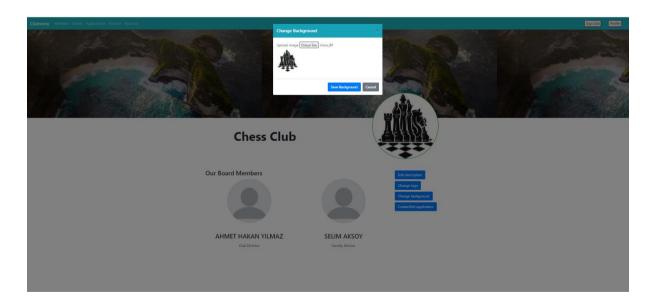


Figure 1.2.3.2: Club Change Background

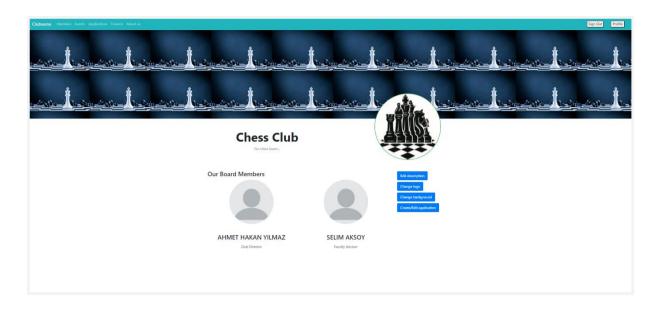


Figure 1.2.3.3: Club Home Page after changing Background

These three figures show before and after editing profile attributes (profile photo, background photo, description) by club director account.

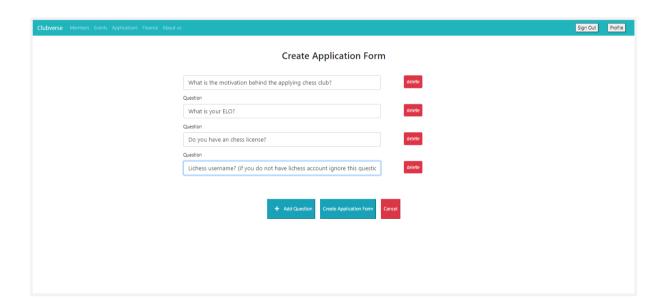


Figure 1.2.3.4: Create Application Form

After clicking the create/edit application form from the Club Homepage slub director will be directed to create an application form. If there is already an application form of the club then it uploads that application form to make changes to it. If there is not an application form the club director can create it by adding questions and clicking the "Create an Application" button. If the club director chooses not to have an application form then deleting all questions

is enough and with this way their club takes members by just applying without an application form process (in this situation every student who clicks the apply club is directly added as a member).

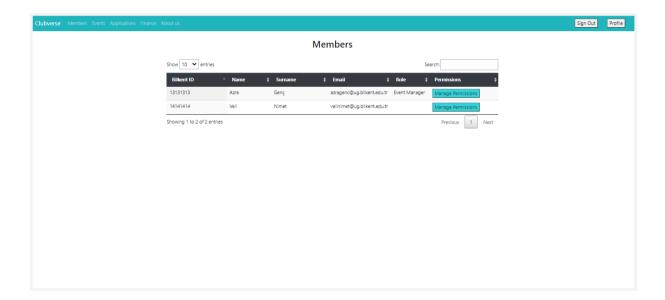


Figure 1.2.3.5: Members List

From the navigation bar Club directors can reach the "Members List" of their club.

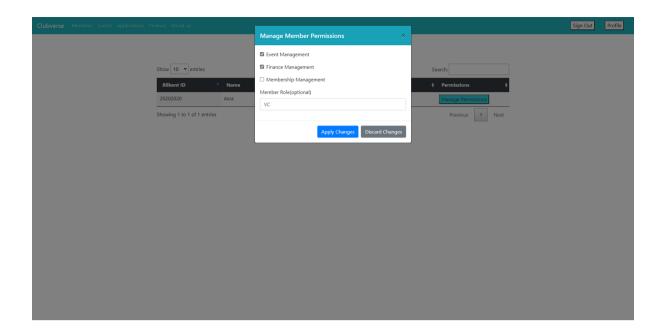


Figure 1.2.3.6: Manage Member Permission

After reaching the "members list" Club directors can manage the permissions of the members of their club. Adding permissions are for making things easier for club directors by assigning capability of three main management (Event Management, Finance Management, Membership Management) types to students who are not club directors. Thanks to permission management of members, club directors do not have to deal with all the work of the club. Also, there is an optional input area for Member Role and it is for declaring the role of the member in the club. Even if a member does not have any permission to manage something in the club from an application, they can have a role. If a member has a member role, then the name, member role (title), and the profile photo of that member will be shown on the club home page.

1.2.4 Club Directors and Club Managers(Students)

Cases that are available for both club directors and students if they have permission given by the club director.

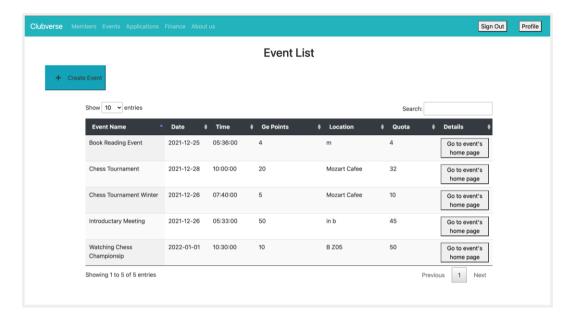


Figure 1.2.4.1: Event List

Club directors and students with "manage events" permission can view the Manage Events page of a club. On this page, they can view the list of created events. From this page, they can choose to view the details of the page by clicking "Go to event's home page". They can choose to create a new event by clicking the "Create Event" button. Users of this use case can search particular events with the search bar.



Figure 1.2.4.2: Create a New Event

Club directors and students with "manage event" permission can create an event for the club. When creating the events they need to specify fields such as Title, Description, Start date, End date, Start time, End time, Review deadline date, Review deadline time, Registration deadline time, Registration deadline date, Quota, Ge points, Location Description, In Bilkent (if the location is in Bilkent), Building, Classroom, Finance, Finance Description, and Memberonly (if the event is for only board members). If the ending time/date of the event is earlier than the starting date/time then the user gets a warning saying "end time cannot be earlier than start time" when they try to save or publish the event. If the review deadline is earlier than the end time of the event, again the user is warned with a message "Review deadline cannot be earlier than the ending time of the meeting" when trying to save or publish. If the finance, quota, ge point have a negative value the user will get a warning about it when trying to publish or save the event. Also, the user gets a warning of the quota is 0 when trying to publish or save the event. If all the inputs are in the correct format the users of this use case can just save the event by clicking the button "Save as Draft" or directly publish the event by clicking the button "Publish".

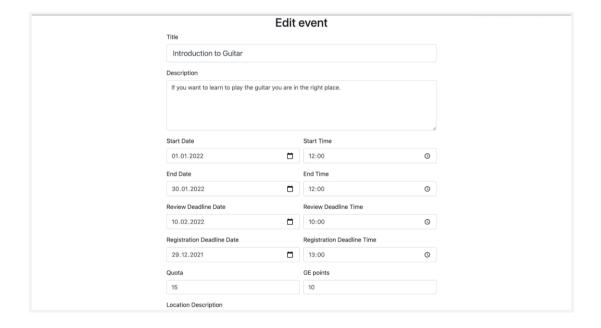


Figure 1.2.4.3: Event Part 1

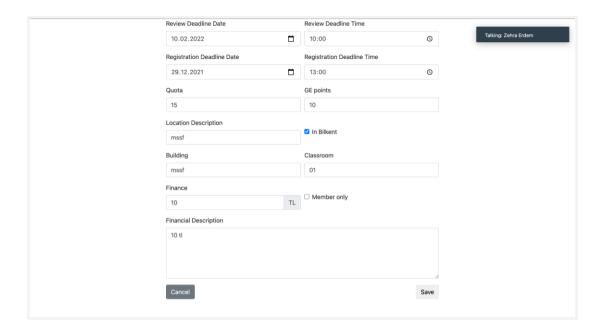


Figure 1.2.4.4: Event Part 2

Club directors and students with "event management" permission can edit an existing event. When saving the new edited date, the user will get a warning if the input types do not comply with the correct format as described when creating an event. After editing the event, the user can choose to save the changes.

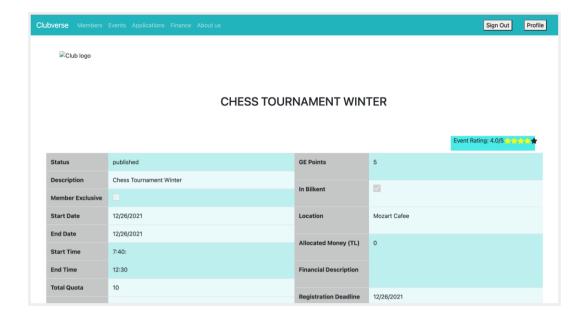


Figure 1.2.4.5: See Event Home Page Part 1

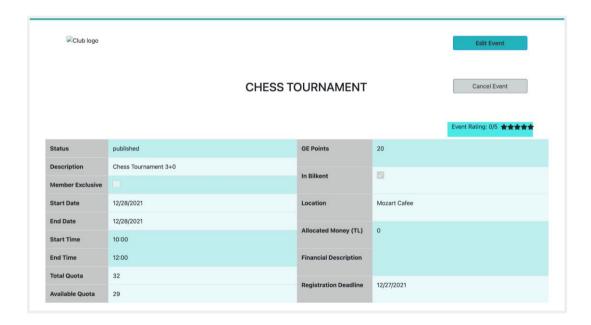


Figure 1.2.4.6: See Event Home Page Part 2

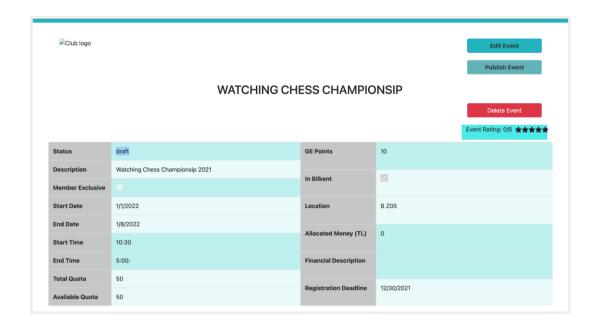


Figure 1.2.4.7: See Event Home Page Part 3

Club directors and students with "manage events" permission can view the events home page for the club they are managing. This page shows the details of an event that were specified while creating the event. They can also view the attendance on this page, choose to take attendance, see the review and choose 4 different options for the event. These 4 options are Cancel (if it is not already canceled or passed or a draft event), Edit event(if not canceled or passed), Publish (if not canceled and not published already), and Delete (if it is not published).

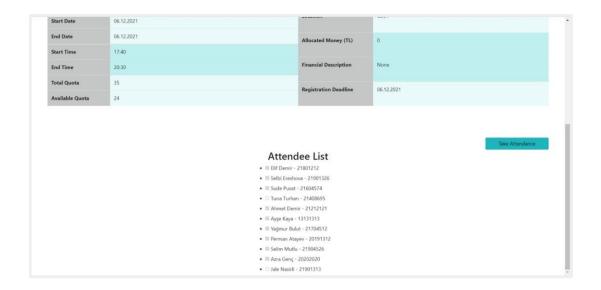


Figure 1.2.4.8: Take Attendance Part 1

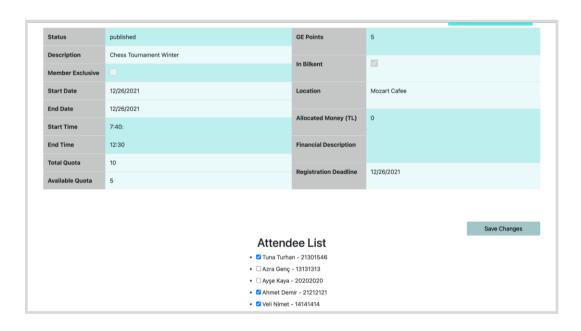


Figure 1.2.4.9: Take Attendance Part 2

Club directors and students with "events management" permission can take attendance for a past event.



Figure 1.2.4.10: Review Application

Club directors and students with "manage members" permission can review applications for the club they are managing. After reviewing the application, they can reject, accept the application or choose not to take any action.

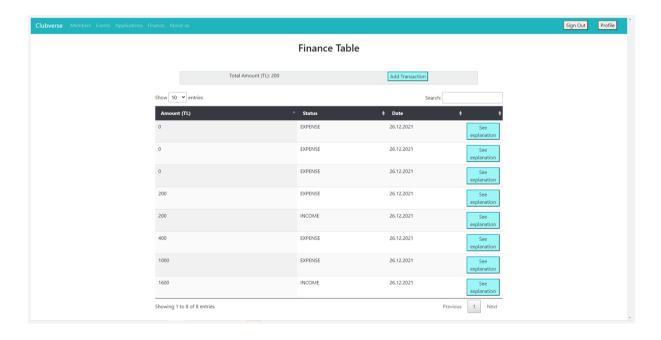


Figure 1.2.4.11: See Finance Table

From the Finance page club directors and students with "manage finance" permission can see the details of your financial status such as the total money or when how much money is spent and explanation of it, etc. They can search for a specific transaction from the search bar. Whenever an event is held its finance data is also added here automatically. However, you can add new Transactions manually as well.

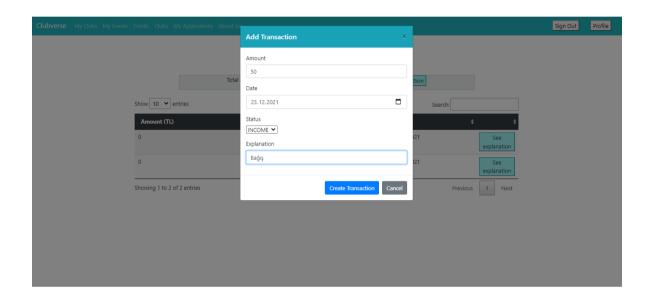


Figure 1.2.4.12: Add transaction

Club directors and students with "manage finance" permission can add a new transaction. When adding the transaction the user should indicate the amount of money, the date of the transaction, whether it is income or expense, and an explanation for the transaction.

1.2.5 Faculty Advisor

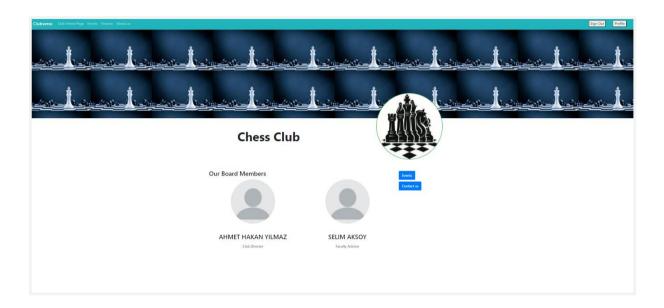


Figure 1.2.5.1: Homepage of Faculty Advisor

Faculty advisors can see the homepage of the club as their main page. They can move to the event list of the club and contact them.

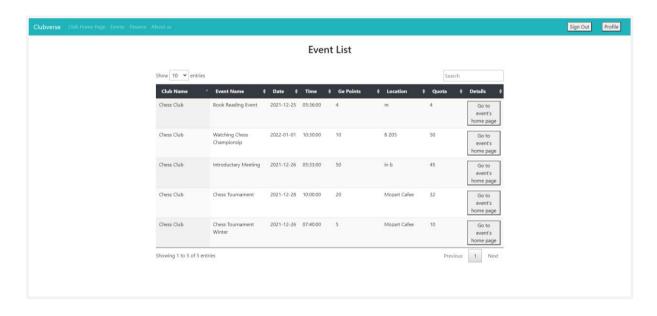


Figure 1.2.5.2: Event List of Faculty Advisor

By Clicking Events from the navigation bar, Faculty advisors can see the list of the events of their club. They can move to the event homepage from this list.

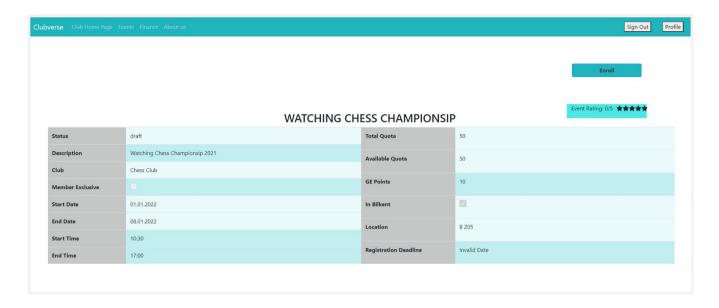


Figure 1.2.5.3: Non Enrolled Event Homepage of Faculty Advisor

Faculty advisors can see the event home page, which includes the details of the events. If they are not enrolled, they can enroll in the event on the event home page.

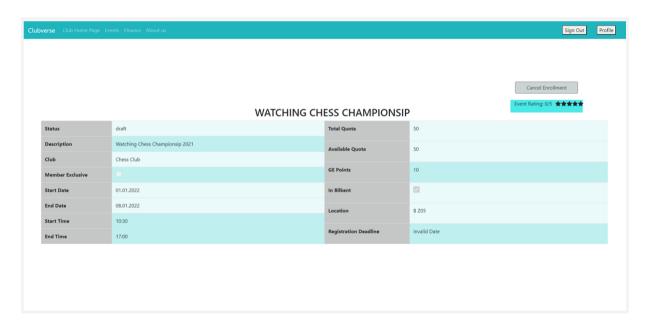


Figure 1.2.5.4: Enrolled Event Homepage of Faculty Advisor

Faculty advisors can cancel enrollment in the event home page of an enrolled event.

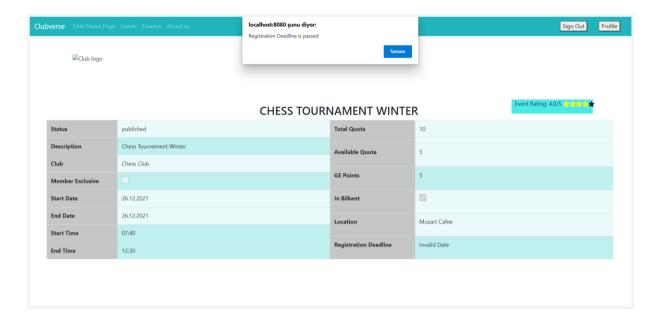


Figure 1.2.5.6: Event Homepage of Faculty Advisor

In some cases, both enroll and cancel enrollment buttons are not visible. Examples of these cases: if the event is canceled, if the registration deadline of the event has already passed. As shown in the figure above, Faculty advisors will see a notification if the warning if the registration deadline is passed.

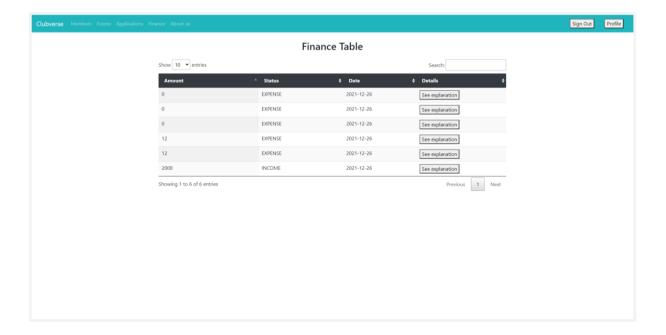


Figure 1.2.5.7: Finance Table of Faculty Advisor

Faculty advisors can go to the Finance Table of the Club by clicking the Finance button from the navigation bar. They can see the finance table of the club and their explanations.

2. Build Instructions

Our source code can be reachable from the url https://github.com/SelbiEreshova/CS319-Luna-Student-Club-Manager which gives Github repository. The most recent version of the project is in the main branch. You need to clone the repository from there and open it as a maven project. To open it, IDEs like Intellij and Eclipse are recommended.

Though the .idea folder is the last version and it works, sometimes loading maven projects can confuse. If something like that happens you can delete .idea from your project and reload maven.

Our main class is in the path backend / src / main / java /luna / clubverse / backend / BackendApplication.java. After cloning the repository, opening it as a maven project, and waiting for the loading of dependencies, you should run this class. However, before running anything you should be sure that the tool you will run the code in has Java 17 and you are running code by using it. For example, in Intellij you can open File -> Project Structure -> Project Settings -> Project -> Project SDK. From there you can see which SDK is used as default and change it to version 17 if it is not.

Our project is connected to AWS so there is no need to download or install anything for the database. In this project, we are using localhost:8080 port so before running the code please be sure that there is nothing that runs on this port.

Finally, after the BackendApplication.java class started to run, you can open any browser and enter the link http://localhost:8080/login. It is suggested to use Chrome rather than Edge because in our projects some UI parts are not fully supported by Edge.

Note: In our project, we are using a MailManager which allows the program to send mail. However, since we did not want to give credentials of the mail address we deleted the part credentials are written. Moreover, to prevent any error because of missing credentials. Even credentials are there, during the demo some non-real mails or emails that their owners are not known can be entered and the program will send mail to these addresses. To prevent this, we also made the command line the parts of code we send emails. If you want to make active this feature you need to enter the code below to backend / src / main / java /luna / clubverse / backend / mail / MailManager.java, between lines 31-32 with the credentials of the

mail you want to use (mailAddress and password are address and password of the account as a String).

Code:

mailSender.setUsername(mailAdress);

mailSender.setPassword(password);

After that finally you should go to backend / src / main / java /luna / clubverse / backend / user / service / AuthenticationService.java and make the lines 140-150 and 171-179 as no comment lines. After these two steps, run the program again. Sending mails when creating a new club director or faculty advisor accounts will be active.

3. What is Working and Not Working

Only the minor side is a little bit slow, other than that perfect.

Working:

- Use cases for admin(except deleting students)
- Use cases related to events(except review event)
- Use cases related to clubs
- Use cases related to finance
- Profile pages
- Login/Sign up/Sign out
- Mail Sender

Could not finish implementing:

- Review event. Backend and frontend, implemented but not integrated.
- Deleting students for admins.

Problems:

 Slow when loading pages. This could be due to the database or because of adding HTML elements dynamically on some pages. We are using AWS Web Services and it might be slower than using local database