



HACETTEPE UNIVERSITY
FACULTY OF ENGINEERING
DEPARTMENT OF GEOMATICS
ENGINEERING

GMT351 FINAL PROJECT

REPORT

TEAM MEMBERS

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SUPERVISOR

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1. Project Introduction

1.1 Definition and Motivation

A website has been designed under the name of Hacettepe University Community Management System, which includes a list of communities, detailed organization of events in communities and information about these events such as time, place and organizer.

1.2 Goals and Objectives

Our main goal in this project was to make it as more useful as possible. While doing this, our primary goal is to ensure that people who will participate in any event can enter their own information and register for the event of the relevant community. This information appears on the main screen as name, surname, e-mail address, password, date of birth, and gender, respectively. In addition, there are three sections containing this information for those who want to register as a group. In this way, the organizer of the event can see the project participants and their information and contact them.

1.3 Methodology

When we began the project, we had several requirements. PostgreSQL must be set up and operating in the backend. We utilized Visual Studio to run our html, CSS, and javascript scripts because it is a tool that supports all widely used languages. Visual Studio was also necessary for development.

1.4 Structure of the Report

The Background section after this part of our report contains information about the communities in the life of the university and information about our database. In the Requirement Analysis section, the features of our general project contain information about how it appeals to users. In the preliminary design part, we gave information about the content and design of our project and showed how to use it. In the project planning and management part, there is how we work in harmony with our teammates, and finally, in the conclusion part, there is the final output of our project.

2. Background

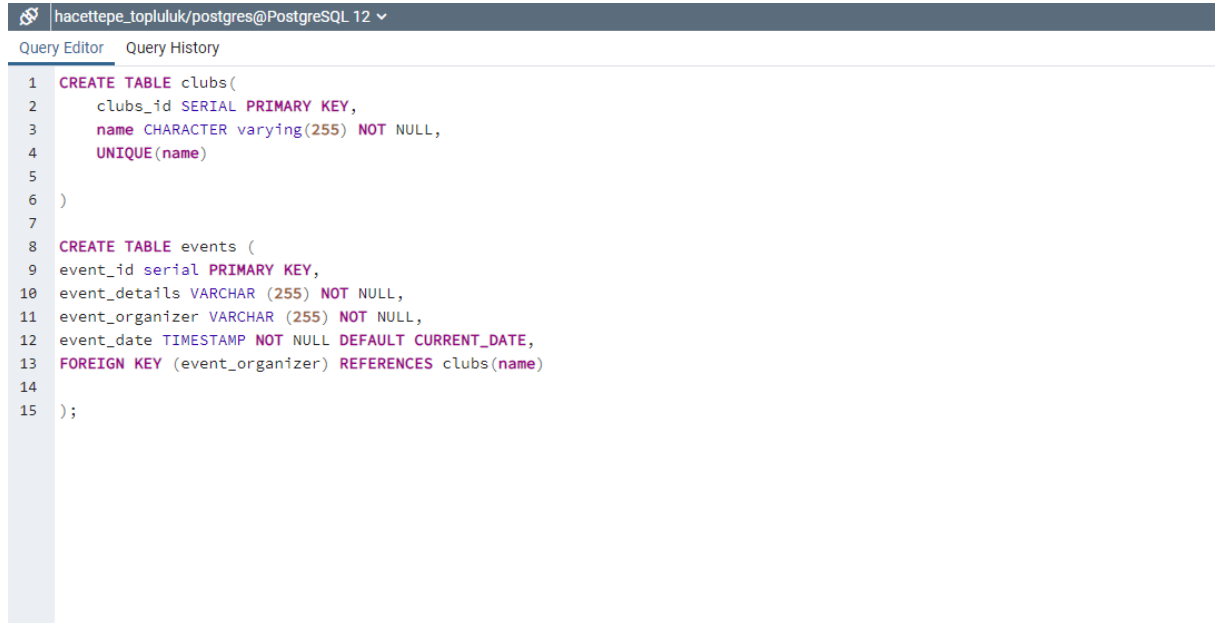
2.1 University Life

Student society or student club is an organization formed by a group of students in any university for the purposes of dealing with various hobbies, discussing or researching a particular subject, helping students or people, providing personal development, socializing with fun activities. In a well-established university such as Hacettepe University, it would be beneficial to easily perform operations such as registering about communities and events, getting information, participating in events, etc.

2.1 Database Management Systems and Web-Based Development

We used PostgreSQL while creating the database of our project. Creating the database of a project is like making the foundation of that project, so it is very important. A database is a structured information or data collection that is organized and typically kept electronically in a computer system. A database management system typically controls the database (DBMS). It is frequently referred to as

the database system, shortened simply as database, when the data, the DBMS, and the related applications are together. We created two tables named clubs and enet in Postgresql and integrated it into our project. Using Visual Studio, html css and javascript codes were written. The changes we made were made and edited via html.

The image shows a screenshot of a PostgreSQL Query Editor window. The title bar indicates the connection is 'hacettepe_topluluk/postgres@PostgreSQL 12'. Below the title bar, there are tabs for 'Query Editor' and 'Query History'. The 'Query Editor' tab is active, displaying SQL code for creating two tables. The code is as follows:

```
1 CREATE TABLE clubs(  
2     clubs_id SERIAL PRIMARY KEY,  
3     name CHARACTER varying(255) NOT NULL,  
4     UNIQUE(name)  
5 )  
6 )  
7  
8 CREATE TABLE events (  
9     event_id serial PRIMARY KEY,  
10    event_details VARCHAR (255) NOT NULL,  
11    event_organizer VARCHAR (255) NOT NULL,  
12    event_date TIMESTAMP NOT NULL DEFAULT CURRENT_DATE,  
13    FOREIGN KEY (event_organizer) REFERENCES clubs(name)  
14 )  
15 );
```

Figure 1

3. Requirement Analysis

We were asked to design a website using the specs and features shown above. This requires some requirements. The project's backbone, the backend, needs to be created initially. Because we had already done tabular research in our relational database course, Postgresql was mostly setup and operational. For the frontend, we needed VS (Visual Studio). We were requested to create an organization on this basic club site by entering the names of the community, the president's surname, and the dates of the activities. The goal at hand was to code using Visual Studio's Java capabilities while constructing a Postgresql database.

- **Usability Requirements**

Because Hacettepe University students are the intended audience, our project has a simple interface and few settings. Although our website is simple it accomplished to passed the usability test

- **Reliability Requirements**

For users of a system, the overall dependability of the system is important. However, this requirement was already met because the website we created did not seek any data that may jeopardize the security of the user's personal information.

- **Performance**

The performance of a website is assessed by a variety of parameters, including connection and DNS time. Our website functioned admirably since it was a simple community site with minimal features.

- **Implementation**

We have created an open and easy-to-use website for students of Hacettepe University.

- **Interoperability**

The ease with which a system may share information and exchange data with other systems and external hardware is characterized as interoperability. We have the ability to add, remove, and modify data.

4. Preliminary design

We already had a general design of the community website we were working on. In addition, we have added a section where those who will attend the event can enter their information and choose whether they participate or not. Our thought while adding this is that the heads of the community who organize the event have a list of the participants in the project and their information. However, in case of any problem, they were able to communicate easily via e-mail. The information in this section includes name, surname, e-mail address, passwords in the system, gender, date of birth and a choice about whether they participate or not. When you first enter the site, choose the community name and event you will join, and then register by entering your information.

5. Project planing and management

After creating a group for the project to be done, we registered on github. By examining the prepared tutorial, we determined what we need for this design. We got our output by designing and writing the codes of the additions we will add to the existing site.

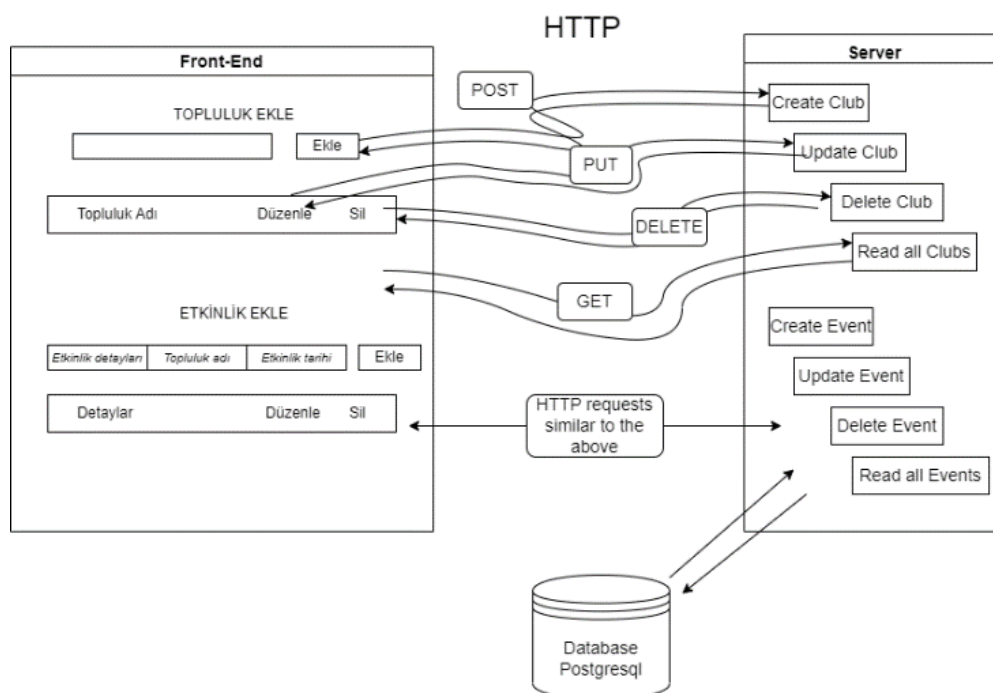


Figure 2

6. Developed Systems

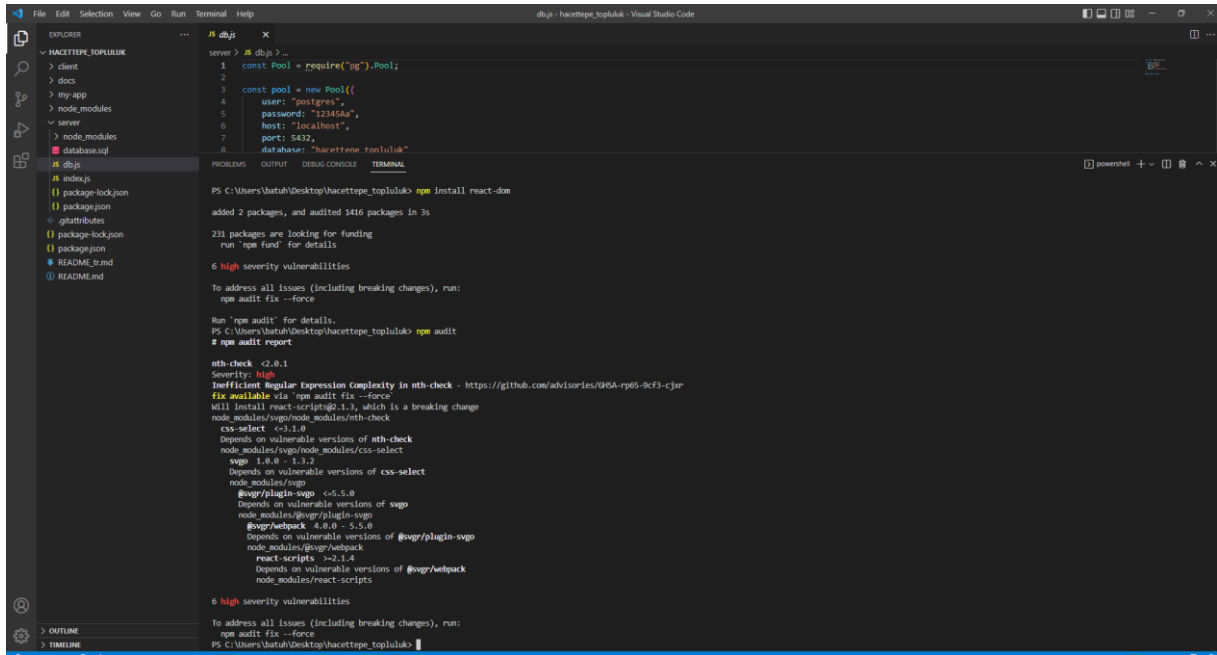


Figure 3

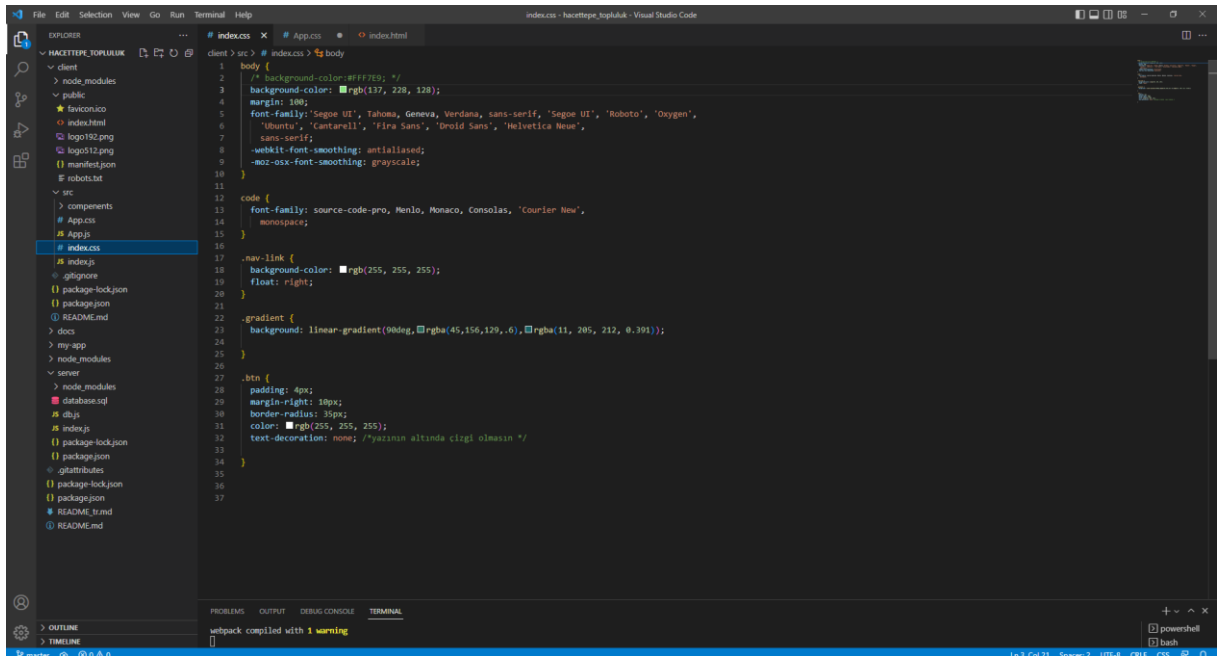


Figure 4



← → localhost:3000

Hacettepe Üniversitesi
Topluluk Yönetim Sistemi

Ana Sayfa Topluluklar Etkinlikler

Topluluk Ekle

Topluluk Adı Giriniz Ekle

Topluluk Adı	Topluluk Adını Düzenle	Topluluk Adını Sil
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Etkinlik Ekle

Etkinlik Detaylarını Belirtiniz: Etkinlik Sahibi Topluluğun Adını Giriniz: Etkinlik Tarihi Giriniz: GG.AA.YYYY SS:DD Ekle

Detaylar	Topluluk	Tarih	Etkinlik Düzenle	Etkinlik Sil
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Figure 7 (The website before the changes which we made)

← → localhost:3000/7

Hacettepe Üniversitesi
Topluluk Yönetim Sistemi

Ana Sayfa Topluluklar Etkinlikler

Topluluk Ekle

Topluluk Adı Giriniz Ekle

Topluluk Adı	Topluluk Adını Düzenle	Topluluk Adını Sil
Futbol Topluluğu	Düzenle	Topluluğu Sil

Etkinlik Ekle

Etkinlik Detaylarını Belirtiniz: Etkinlik Sahibi Topluluğun Adını Giriniz: Etkinlik Tarihi Giriniz: GG.AA.YYYY SS:DD Ekle

Detaylar	Topluluk	Tarih	Etkinlik Düzenle	Etkinlik Sil
Maç Organizasyonu	Futbol Topluluğu	2023-01-25T18:00:00.000Z	Etkinlik Düzenle	Etkinlik Sil

Adınız: Batuhan İsmail

Soyadınız: Esin

Email Adres: batuhanesin49@gmail.co

Şifre: *****

Cinsiyet: Erkek Kadın

Doğum Tarihi: 20.10.2000

Katılıyor Musunuz?: Evet Hayır

Gönder

Adınız: Okay

Soyadınız: Zeh

Email Adres: okayzirh2000@gmail.com

Şifre: *****

Cinsiyet: Erkek Kadın

Doğum Tarihi: 10.06.2000

Katılıyor Musunuz?: Evet Hayır

Adınız: Mahmut Bahadır

Soyadınız: Öztürk

Email Adres: mahmutbahadrozurk@gi

Şifre: *****

Cinsiyet: Erkek Kadın

Doğum Tarihi: 06.10.2000

Katılıyor Musunuz?: Evet Hayır

Figure 8 (The website after the changes which we made)

7. Conclusion

A section where you can easily give information about whether or not to participate in the events organized by the communities has been added to the interface of our website. In this way, it has become a site where more professional and faster communication can be provided with the members for the planned events. It also gained a more elegant look with a few visual changes.

8. References

- https://www.w3schools.com/html/html_scripts.asp
- <https://www.oracle.com/tr/database/what-is-database/>
- <https://www.yazilimkodlama.com/web/html-form-ornekleri/>

9. Appendices

We carried out the project process through discord a few times and once in a face-to-face meeting.

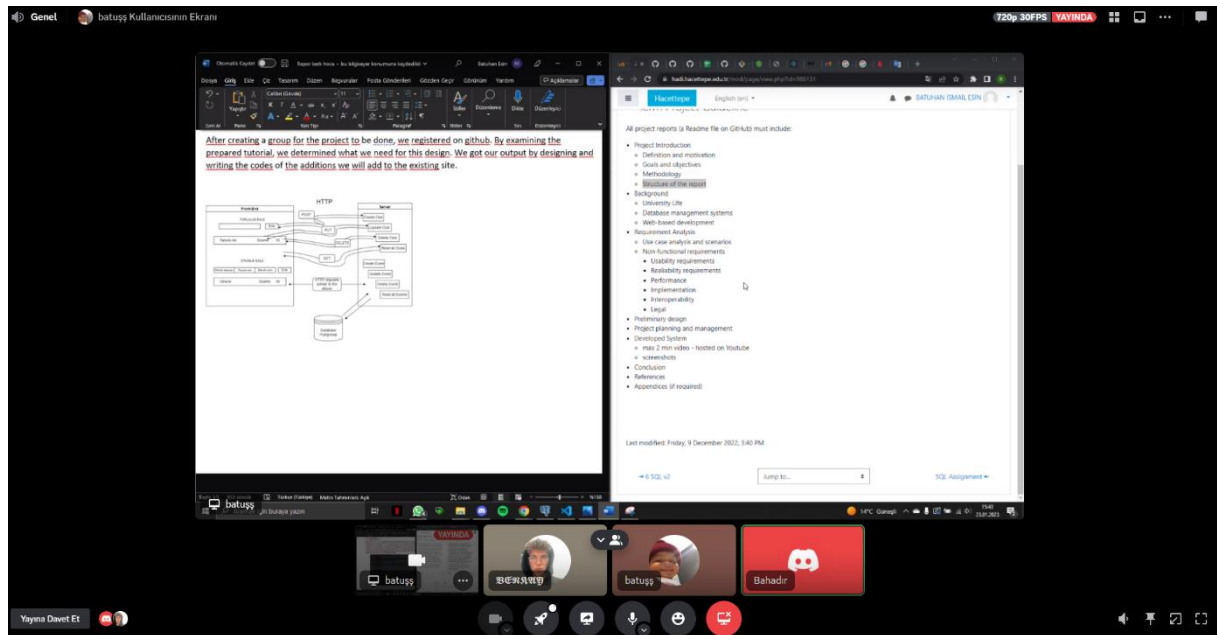


Figure 9