Database Systems

COP 4710

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College Event Website

Group 22 Members:

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Project Description:

A web application to allow universities to manage and host events. Each university will have a super admin who will create the university profile and will manage the events and the student organizations. There are two types of users, a student and an admin, for simplicity, we decided to combine them together because the student would become an admin if he/she created an RSO.

* The App can be accessed [here](http://www.eventup.xyz/)

GUI:

* List of Languages and Technologies we used:
  + React js for the front end.
  + MySQL Database Engine
  + Express and Nodejs for the backend.
  + Discord for Communications and Meetings.
  + Google Drive for sharing files and documentations.
  + Figma for Creating prototypes.
  + Digital Ocean and Nginx for deploying and hosting the website
  + The domain name was purchased on namecheap.com

Screenshots of the App:

Graphical user interface

Description automatically generated

Figure 1: Login/signup page

A screenshot of a computer

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Figure 2: Super admin dashboard

A screenshot of a computer

Description automatically generated with medium confidence

Figure 3: Super admin’s Calendar with all the Events

Graphical user interface

Description automatically generated with medium confidenceGraphical user interface, text, application, chat or text message

Description automatically generated

Figure 4: Super Admin Viewing an event

Figure 5: Super admin side menu

Graphical user interface, text, application

Description automatically generated

Figure 6: Student viewing an Rso

Graphical user interface, application, website

Description automatically generatedGraphical user interface, application

Description automatically generated

Figure 7: joining and leaving an Rso

Figure 8: member list of an Rso

Graphical user interface, application

Description automatically generatedA group of puppies

Description automatically generated with medium confidence

Figure 9: Comments

Figure 10: Student viewing an event

ER-Diagram:

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Triggers:

* We created multiple Triggers to enforce the project’s specifications like:
  + A trigger when a student leave or join an Rso to determine the status of the Rso. The Rso will be active only if it has at least 5 members.
  + A trigger when a student register in a specific university to count the number of students within a university
  + A check to make sure the student is only allowed to pass a rating between 0 and 5.

SQL Statements examples:

* The statements of tables and triggers creation are in the zip file databaseConfiguration folder.
* To get the Rso’s info from a specific university

Graphical user interface, application

Description automatically generated

* To get the comments and the ratings for an event

A screenshot of a computer

Description automatically generated with medium confidenceA screenshot of a computer

Description automatically generated with medium confidence

* To get all the events for a specific Rso

Graphical user interface, text, application

Description automatically generated

* To get all the members of a specific Rso
* Graphical user interface

  Description automatically generated
* Getting the list of Rso’s that a student is part of

A picture containing text, screenshot, black, several

Description automatically generated

* All of the rest sql statements could be found in the server.js file.

Constraint Enforcement:

* Most of these constraints are done from the front end. For example, the front end won’t allow anyone to create an event for an Rso unless they are the admin.

Conclusion:

The project was relatively easy for someone who knows web dev, but I think the complexity lies in the database design. Our design for the database was not perfect, and we discovered that in a point where was hard for us to adjust it. Lesson learnt from this project is a good design is essential before jump and code. After the project being done, we have realized multiple ways to implement this project in a better way. For example, some tables needed extra foreign keys which would make our queries run faster and will be shorter. For the most part, we enjoyed doing this project and we learned a lot along the way.