

Group Report: College Event Website

COP 4710-0001 Fall 2019 | Group 58: Da Kim

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1 PROJECT DESCRIPTION

The college event website is an application intended to aid students and registered student organizations (RSO) interact. The application is intended for three different types of users: the student, the admin, and the super-admin. Each role has specific permissions such as creating or managing events RSO's, and universities.

1.1 TECH STACK

The college event website is built using React for the front end, Spring Boot for the RESTful services, and MySQL for the database management system.

2 GRAPHICAL USER INTERFACE

2.1 PLATFORM AND LANGUAGES

This application's graphical user interface is built with JavaScript using React library and Semantic UI styling and components.

2.2 USER

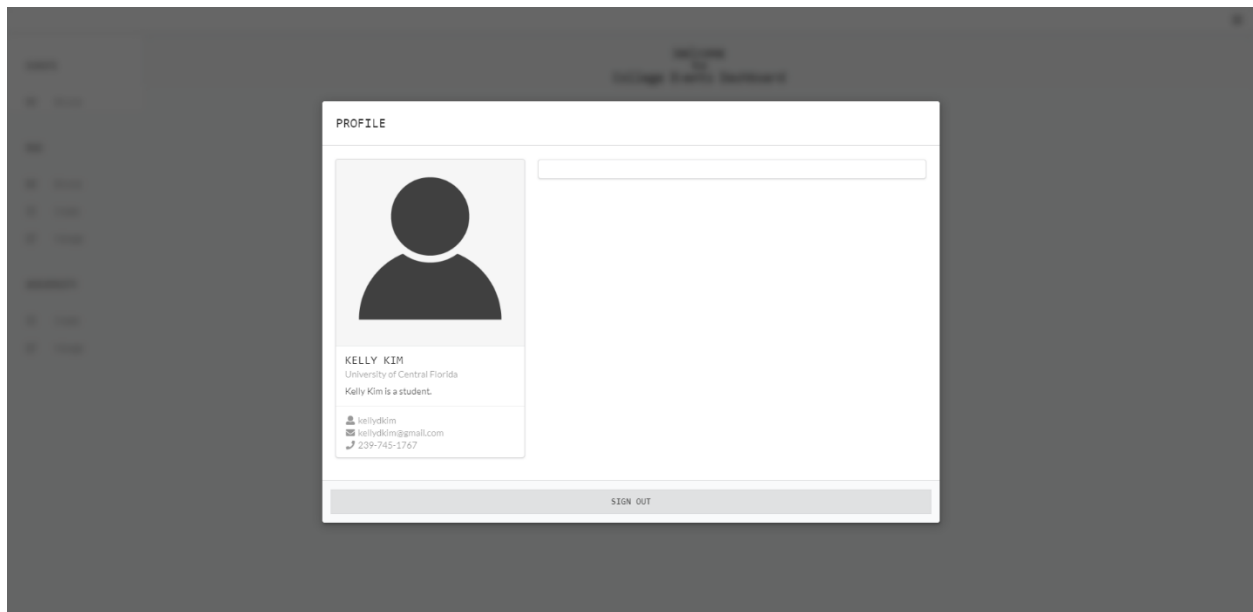


Figure 1: User profile



The image shows a dark-themed web interface with a sidebar on the left containing navigation links like 'Home', 'About', 'Contact', 'Sign In', and 'Sign Up'. The main content area features a 'Sign in' form. At the top of the form are two tabs: 'Sign In' (active) and 'Sign Up'. Below the tabs are two input fields labeled 'USERNAME' and 'PASSWORD'. At the bottom of the form is a wide button labeled 'ENTER'.

Figure 2: Sign in



The image shows the same dark-themed web interface, but with the 'Sign Up' tab selected. The form fields are as follows: 'USERNAME *' (required), 'PASSWORD *' (required), 'FIRST NAME' and 'LAST NAME' (two separate input fields), 'EMAIL *' (required), 'PHONE NUMBER *' (required), and 'UNIVERSITY' (a dropdown menu). At the bottom of the form is a wide button labeled 'SUBMIT'.

Figure 3: Sign up

2.3 EVENTS

Figure 4: Create event

[illegible]

Figure 5: Browse Events

2.4 RSO

EVENTS

Browse

Create

RSO

Browse

Create

Manage

UNIVERSITY

Create

Manage

CREATE RSO

NAME

ADMIN

DESCRIPTION

SUBMIT

2.5 UNIVERSITY

EVENTS

Browse

Create

RSO

Browse

Create

Manage

UNIVERSITY

Create

Manage

CREATE UNIVERSITY

NAME

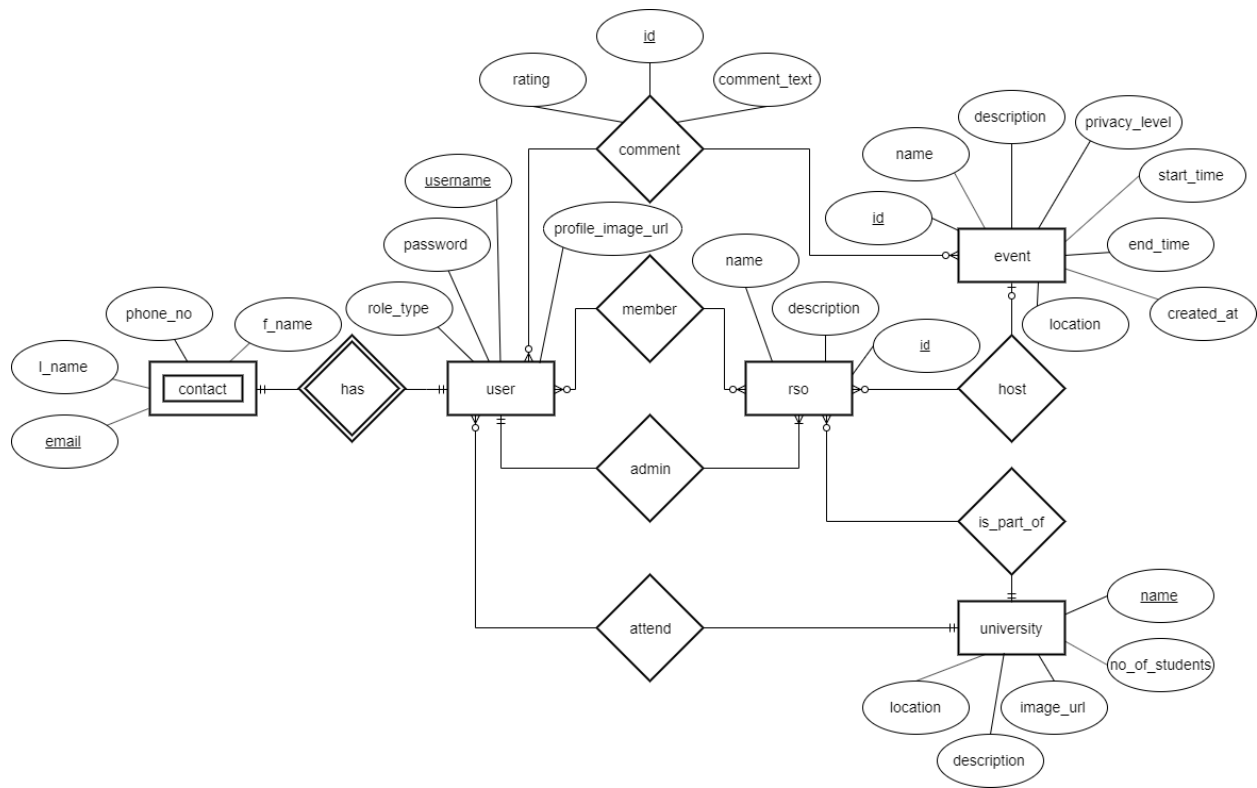
LOCATION

DESCRIPTION

IMAGE URL

SUBMIT

3 ER-MODEL



3.1 CONSTRAINTS

All parts that are highlighted below are constraints. Commonly used ones for this project include, not null for attributes that are required, checks for ensuring the right type of data such as ratings from 0-5 and email formatting, defaults, and primary and foreign keys for modeling relationships.

```
CREATE TABLE universities(  
    name VARCHAR(100) PRIMARY KEY,  
    google_place_id VARCHAR(500) UNIQUE NOT NULL,  
    univ_description VARCHAR(10000),  
    no_of_students INT,  
    image_url VARCHAR(255)  
);
```

```
CREATE TABLE contacts(  
    email VARCHAR(100) PRIMARY KEY,  
    CHECK(email LIKE '%@%. %'),  
    f_name VARCHAR(50),  
    l_name VARCHAR(50),  
    phone_no VARCHAR(50) NOT NULL  
);
```

```

CREATE TABLE users(
    username VARCHAR(100) PRIMARY KEY,
    password VARCHAR(255) NOT NULL,
    profile_image_url VARCHAR(500) DEFAULT 'https://genslerzudansdentistry.com/wp-content/uploads/2015/11/anonymous-user.png',
    role_type ENUM('super admin', 'admin', 'student') DEFAULT 'student',
    email VARCHAR(100) NOT NULL,
    university VARCHAR(100) NOT NULL,
    FOREIGN KEY (email) REFERENCES contacts(email),
    FOREIGN KEY (university) REFERENCES universities(name)
);

```

```

CREATE TABLE rsos(
    id INT AUTO_INCREMENT PRIMARY KEY,
    name VARCHAR(100) NOT NULL,
    rso_description VARCHAR(10000),
    admin_username VARCHAR(100) NOT NULL,
    university VARCHAR(100) NOT NULL,
    FOREIGN KEY (admin_username) REFERENCES users(username),
    FOREIGN KEY (university) REFERENCES universities(name)
);

```

```

CREATE TABLE rso_members(
    rso INT NOT NULL,
    rso_member VARCHAR(100) NOT NULL,
    FOREIGN KEY (rso) REFERENCES rsos(id),
    FOREIGN KEY (rso_member) REFERENCES users(username),
    PRIMARY KEY (rso, rso_member)
);

```

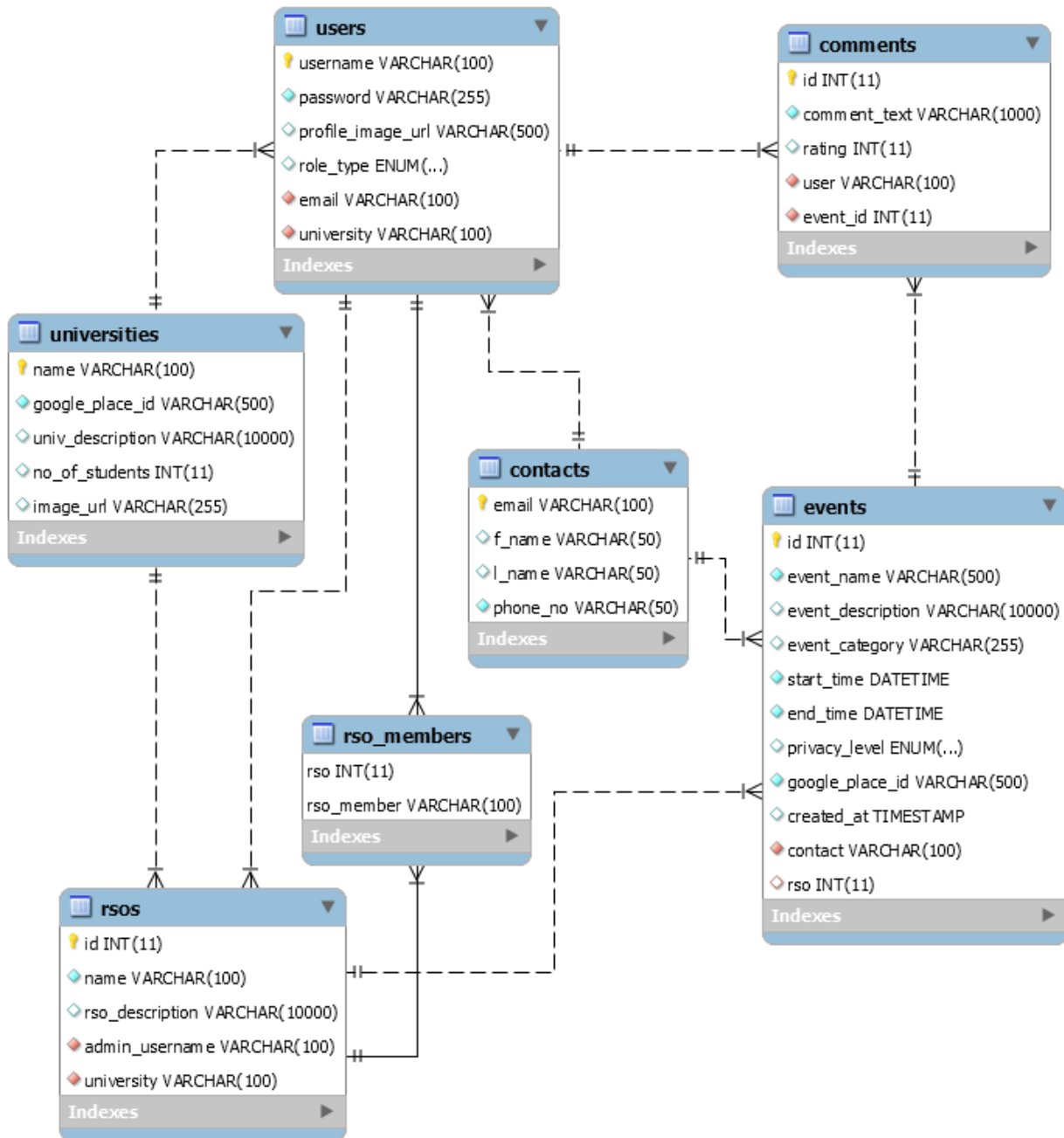
```

CREATE TABLE events(
    id INT AUTO_INCREMENT PRIMARY KEY,
    event_name VARCHAR(500) NOT NULL,
    event_description VARCHAR(10000),
    event_category VARCHAR(255),
    start_time DATETIME NOT NULL,
    end_time DATETIME NOT NULL,
    privacy_level ENUM('public', 'private', 'rso event') DEFAULT 'public',
    google_place_id VARCHAR(500) NOT NULL,
    created_at TIMESTAMP DEFAULT NOW(),
    contact VARCHAR(100) NOT NULL,
    rso INT,
    FOREIGN KEY (contact) REFERENCES contacts(email),
    FOREIGN KEY (rso) REFERENCES rsos(id)
);

```

```
CREATE TABLE comments(  
  id INT AUTO_INCREMENT PRIMARY KEY,  
  comment_text VARCHAR(1000) NOT NULL,  
  rating INT,  
  CONSTRAINT CHK_rating CHECK(  
    rating <= 5  
    AND rating >= 0  
  ),  
  user VARCHAR(100) NOT NULL,  
  event_id INT NOT NULL,  
  FOREIGN KEY (user) REFERENCES users(username),  
  FOREIGN KEY (event_id) REFERENCES events(id)  
);
```


4 RELATIONAL DATA MODEL



5 SQL STATEMENTS

5.1 CREATE DATABASE AND TABLES

```
CREATE DATABASE college_events;
```

```
USE college_events;
```

```
CREATE TABLE universities(  
    name VARCHAR(100) PRIMARY KEY,  
    google_place_id VARCHAR(500) UNIQUE NOT NULL,  
    univ_description VARCHAR(10000),  
    no_of_students INT,  
    image_url VARCHAR(255)  
);
```

```
CREATE TABLE contacts(  
    email VARCHAR(100) PRIMARY KEY,  
    CHECK(email LIKE '%@__%.__%'),  
    f_name VARCHAR(50),  
    l_name VARCHAR(50),  
    phone_no VARCHAR(50) NOT NULL  
);
```

```
CREATE TABLE users(  
    username VARCHAR(100) PRIMARY KEY,  
    password VARCHAR(255) NOT NULL,  
    profile_image_url VARCHAR(500) DEFAULT 'https://genslerzudansdentistry.com  
/wp-content/uploads/2015/11/anonymous-user.png',  
    role_type ENUM('super admin', 'admin', 'student') DEFAULT 'student',  
    email VARCHAR(100) NOT NULL,  
    university VARCHAR(100) NOT NULL,  
    FOREIGN KEY (email) REFERENCES contacts(email),  
    FOREIGN KEY (university) REFERENCES universities(name)  
);
```

```
CREATE TABLE rsos(  
    id INT AUTO_INCREMENT PRIMARY KEY,  
    name VARCHAR(100) NOT NULL,  
    rso_description VARCHAR(10000),  
    admin_username VARCHAR(100) NOT NULL,  
    university VARCHAR(100) NOT NULL,  
    FOREIGN KEY (admin_username) REFERENCES users(username),  
    FOREIGN KEY (university) REFERENCES universities(name)  
);
```

```
CREATE TABLE rso_members(  
    rso INT NOT NULL,  
    rso_member VARCHAR(100) NOT NULL,  
    FOREIGN KEY (rso) REFERENCES rsos(id),  
    FOREIGN KEY (rso_member) REFERENCES users(username),
```

```

    PRIMARY KEY (rso, rso_member)
);

CREATE TABLE events(
    id INT AUTO_INCREMENT PRIMARY KEY,
    event_name VARCHAR(500) NOT NULL,
    event_description VARCHAR(10000),
    event_category VARCHAR(255),
    start_time DATETIME NOT NULL,
    end_time DATETIME NOT NULL,
    privacy_level ENUM('public', 'private', 'rso event') DEFAULT 'public',
    google_place_id VARCHAR(500) NOT NULL,
    created_at TIMESTAMP DEFAULT NOW(),
    contact VARCHAR(100) NOT NULL,
    rso INT,
    university VARCHAR(100) NOT NULL,
    FOREIGN KEY (contact) REFERENCES contacts(email),
    FOREIGN KEY (rso) REFERENCES rsos(id),
    FOREIGN KEY (university) REFERENCES universities(name)
);

CREATE TABLE comments(
    id INT AUTO_INCREMENT PRIMARY KEY,
    comment_text VARCHAR(1000) NOT NULL,
    rating INT,
    CONSTRAINT CHK_rating CHECK(
        rating <= 5
        AND rating >= 0
    ),
    user VARCHAR(100) NOT NULL,
    event_id INT NOT NULL,
    FOREIGN KEY (user) REFERENCES users(username),
    FOREIGN KEY (event_id) REFERENCES events(id)
);

```

5.2 POPULATING DATA MODEL

```

INSERT INTO
    universities
VALUES
    (
        'University of Central Florida',
        'ChIJZ9k0fGBo54gRMENVJ4UT2kM',

```

```

        'The University of Central Florida is a state university in Orlando, Florida. It has more students enrolled on campus than any other U.S. university.',
        66183,
        'https://www.ucf.edu/news/files/2019/02/UCF-Millican-Hall.jpg'
    ),
    (
        'University of South Florida',
        'EhxFIEZvd2xlciBBdmUsIFRhbXBhLCBGTCwgVVBNIi4qLAoUChIJkWfec9rHwogRlKY4_wN
DqNMSFAoSceHRubOCt8KIEWO0lq-JE1-n',
        'The University of South Florida is a public research university in Tampa, Florida. It is a member institution of the State University System of Florida. Founded in 1956, USF is the fourth-largest public university in the state of Florida, with an enrollment of 50,755 as of the 2018-2019 academic year.',
        49591,
        'https://wusfnews.wusf.usf.edu/sites/wusf/files/styles/medium/public/201708/8-8-17_USF_Stadium_Zone1m.jpg'
    );

```

INSERT INTO

contacts

VALUES

```

    (
        'kellydkim@gmail.com',
        'Kelly',
        'Kim',
        '239-745-1767'
    ),
    (
        '__aedwards@gmail.com',
        'Adam',
        'Edwards',
        '407-532-1457'
    ),
    (
        'littelgreg@gmail.com',
        'Greg',
        'Littel',
        '407-943-1549'
    ),
    (
        'helloellie@gmail.com',
        'Ellie',
        'Schwartz',

```

```

        '813-945-2304'
    ),
    (
        'dan_muollens@gmail.com',
        'Daniel',
        'Muollens',
        '312-420-3045'
    );

```

INSERT INTO

users(username, password, role_type, email, university)
VALUES

```

    (
        'kellydkim',
        'password',
        'super admin',
        'kellydkim@gmail.com',
        'University of Central Florida'
    ),
    (
        'aedwards',
        'password',
        'admin',
        '__aedwards@gmail.com',
        'University of Central Florida'
    ),
    (
        'gregl',
        'password',
        'student',
        'littelgreg@gmail.com',
        'University of South Florida'
    ),
    (
        'helloellie',
        'password',
        'student',
        'helloellie@gmail.com',
        'University of Central Florida'
    ),
    (
        'dan_muollens',
        'password',
        'admin',
        'dan_muollens@gmail.com',

```

```

        'University of South Florida'
    );

INSERT INTO
    rsos(
        name,
        rso_description,
        admin_username,
        university
    )
VALUES
    (
        'Pride Student Association',
        'Pride Student Association is committed to celebrating and unifying the
        LGBTQ+ community on the UCF campus. PSA allows students to network and socia
        lize through consistent meetings and events put on by PSA and other local af
        filiates. PSA will allow LGBTQ+ students to engage in discussion about curre
        nt events affecting the community along with critical discussion of intersec
        tionality. PSA will strive to include gender and sexual minorities that are
        often neglected in the larger conversation of the LGBTQ+ community. PSA will
        allow students to engage in social and political outreach for representativ
        es and candidates that share the goal of LGBTQ+ inclusion and acceptance. PS
        A aims to host events educating and raising awareness of the LGBTQ+ communit
        y for the UCF student body and local residents.',
        'aedwards',
        'University of Central Florida'
    ),
    (
        'CSD Student Steering Committee',
        'The purpose of the Student Steering Committee is to improve student suc
        cess and engagement via mentoring and building a sense of community. It is t
        he goal of this committee to create ways for all CSD students to connect and
        empower one another to advocate for their needs and be successful during th
        eir undergraduate education at the University of South Florida',
        'dan_muollens',
        'University of South Florida'
    );

INSERT INTO
    rso_members
VALUES
    (1, 'helloellie'),
    (2, 'gregl');

INSERT INTO

```

```

events(
    event_name,
    event_description,
    event_category,
    start_time,
    end_time,
    privacy_level,
    google_place_id,
    contact,
    rso
)
VALUES
(
    'First General Body Meeting',
    'PSA will be hosting its first General Body Meeting in the Social Justice and Advocacy Lounge (located on the 2nd floor of the Student Union, in the back right of OSI) on Wednesday, Sept. 11 from 5-6:30! Come join us to meet our officers, learn about PSA and what we have to offer, and meet new people!',
    'General Meeting',
    '2019-11-27 13:00:00.000',
    '2019-11-27 13:00:00.000',
    'rso event',
    'ChIJV-4yi1xo54gRWdygEqm1dkI',
    '__aedwards@gmail.com',
    1
),
(
    'CSD Survival Skills Training',
    'Presenters will be sharing valuable information on Test Taking and Study Strategies, Surviving Stress, Undergraduate Research, Global Issues in CSD, Grad School Applications, Professionalism, Getting Involved in the Deaf Community, and Resume Building. Lunch will be provided',
    'Workshop',
    '2019-11-18 16:00:00.000',
    '2019-11-18 19:00:00.000',
    'rso event',
    '"ChIJ4dG5s4K3wogRY7SWr4kTX6c"',
    'dan_muollens@gmail.com',
    2
);

```

INSERT INTO

comments(comment_text, user, event_id)

VALUES

```

(
  "Can't wait to see y'all! Excited for the new faces",
  'helloellie',
  1
);

INSERT INTO
  comments(comment_text, rating, user, event_id)
VALUES
  (
    'This was super informational. I got to meet a lot of great people. Than
    ks for the great time and lunch!',
    5,
    'greg1',
    2
  );

```

5.3 VIEW EVENTS

6 ADVANCED FEATURES

For an advanced feature, the database stores user passwords as hashed.

The password entered is 123abc but the stored password is hashed using bcrypt.

```
testuser    $2a$10$hapwMyyiWd15NDDaVSgerekOC3sUb/... https://genslerzudansdentistry.com/wp-conten... student    testuser@gmail.com    University of Central Florida
```


7 CONCLUSION

7.1 DESIRED FEATURES AND FUNCTIONALITIES

With more time, I would like to implement more functionality to the college event application. More form validation on the front end for a seamless user experience with more instructions on how to use the application with each page.

Furthermore, I would like to implement social network integration so users can log in with external accounts such as Google or Facebook. I would also like to have a feature where the user can export events to their personal calendar.

7.2 PROBLEMS

During the project, I underestimated how extensive and time consuming this project would be. Although I enjoyed having full control over the direction of the project, I would have liked to work on a team so that the work was not so strenuous.

I also learned that it is extremely important to have a well thought out and developed database before starting the front-end development. It is much easier to plan out the rest of the application when the database is already fully functional.

Next time, I would like to take a more test-driven approach in development. Having more data while developing would have been much easier.