# Comp 353 (Databases) Prof. BC DESAI Main Project

# Final Report, Submitted on: 10<sup>th</sup> December 2019

Team: krc353\_2(GROUP 11)

Member	First Name	Last Name	Student ID
1	Soumayyah	AHMED	27771223
2	Florin	POENARIU	40012133
3	Avnish	PATEL	40024628
4	Sadia Anowara	SMITHA	40036565
5	Rajat	JAISWAL	40150463

# CONCORDIA UNIVERSITY

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#### **Project Description**

For the purpose of this project, we have created a system called Share, Contribute and Comment, SCC. The system was implemented using MariaDB, MySQL database management system. It includes a database made up of a collection of normalized, 3NF, tables and a web-based user interface which enables its users to access the different functionalities of the system. The system allows users to be members of events and to share information such as texts, photos or videos. They may also manage get-together and keep in touch with each other. Examples of events are academic or community meetings, social gatherings, anniversaries, weddings, etc. The system also allows participants in an event to create one or more groups besides the main group of the event. Each subgroup is made up of a list of other participants with whom to share contents with. Members of such subgroups are able to view and add comments and content given they receive permission to do so by the curator of the group. The default group consists of all of the event participants or group members and allows them to interact with each other via instant messages. The system also allows participants to hold on-line discussions.

All the SCC users have a home page which has an email facility, list of his/her events and access to the events contents as well as the contents of each of the groups where he is an owner or member. The user can switch to one of these events by selecting it. And only the group owner has a feature to view and manage the permissions to any content; the permissions can be changed only by the owner.

Each content added by a member have a profile which is classified as view only, view and comment or view and add or link to other contents.

Group owner can add new members or remove members from the group. Members of a group can share a forum of information such as photos, videos and posts. Adding any members into group requires SCC ID, email address, first name and DOB.

The System Administrator is the only person who can add events and assigns event managers to the new events.

The Controller is the person who sets the charge rate for the usage of the system. The basic fee for an event can be changed from time to time. Recurring events will get a discount, non-profit organizations are complementary, others are charged as determined by the current fees. There are extra charges if an event has been extended over its life-time by its event manager.

Events have a life-time and once it's over, the event manager can extend for extra charges. Otherwise, the event is considered archived and its contents are no longer accessible. However, the details of these archived events are accessible to the event administrator and all the participants for a period of seven years. When the status of an event is active then a participant can share, post and comment. An archived event only allows access to basic details about the events.

The Event Manager is the one who administers the event. He/she is required to provide the details on an event, to register and manage it. Details that he/she must provide include the name, address, phone number, event(s), the type of event. He/she also needs to provide debit details which include

the bank information, online payment system, name, address, account code, etc. The types of events are non-profit organizations, other types of organizations, family or community. The event manager sets up a homepage for the event using a template provided by SCC. The list of participants of an event is supplied by the event manager. If a person has not yet participated in an event and they register as a user and become a participant for an event, then they are sent an email with a URL and a one time code.

Participants are people who are registered for one or more events. Details of the participants include Id, name, password, email address and organization. Persons who have other roles in SCC could also be participants in one or more events. A participant can create a new group and become the manager of that group. They may then invite other participants of events to join the group and admit them into it if they request to join it. Any participant of the main event can request to join the group. Group members may post contents in the group which will not be accessible to anyone other than group members. Also, membership of a group is visible to all members of the group which enables them to send private communication or comments to other members in the group.

#### The Assumptions

The main assumption that we needed to follow with was the finalization of the entity relationship diagram. Resources assumption included that every member of the team would equally participant and contribute in the project. Delivery and schedule assumptions included that the system would configure as expected and that the project would be completed and submitted on time. Platform and environment assumptions included working on the lab computers on the Linux operating system.

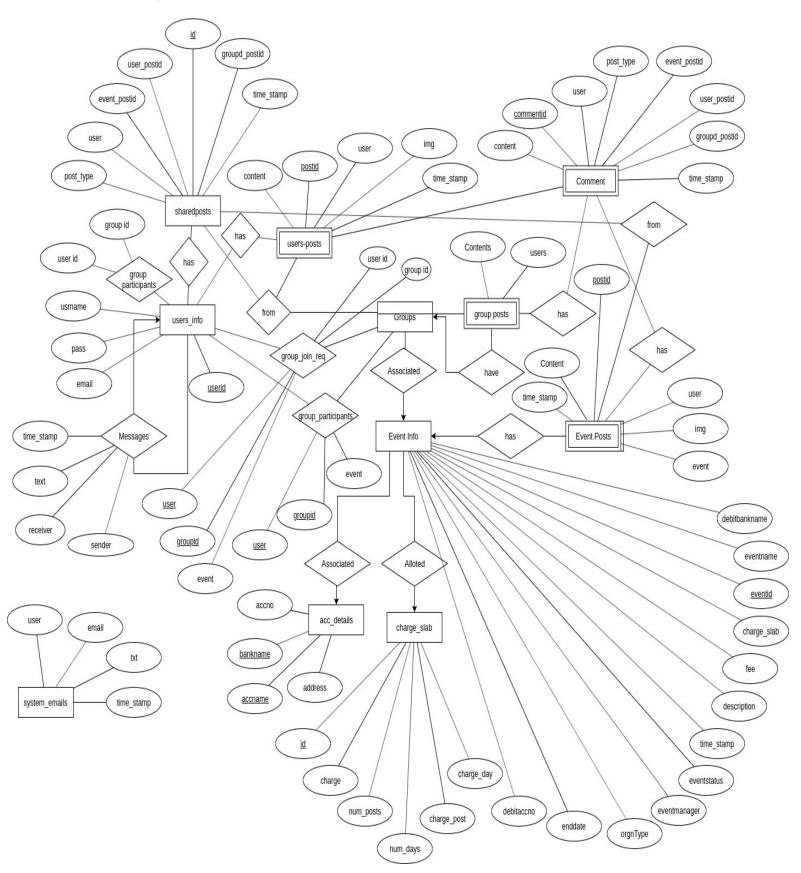
#### The Limitations

- PHP is NOT a pure Object Oriented scripting language and PHP will NOT give the performance of "C" or "C++" language.
- Time limit was a limitation because this project is quite big and needed us to organize our time efficiently throughout the semester rather than leaving it for the last minute.
- Only Linux could be used as a server for PHP, therefore, most of us needed to work on the lab computers at university to work on this project.
- Some of us had no prior knowledge of PHP.
- Some of the course material was not fully comprehended by some of the members in the team so we had to accordingly implement them in the project.

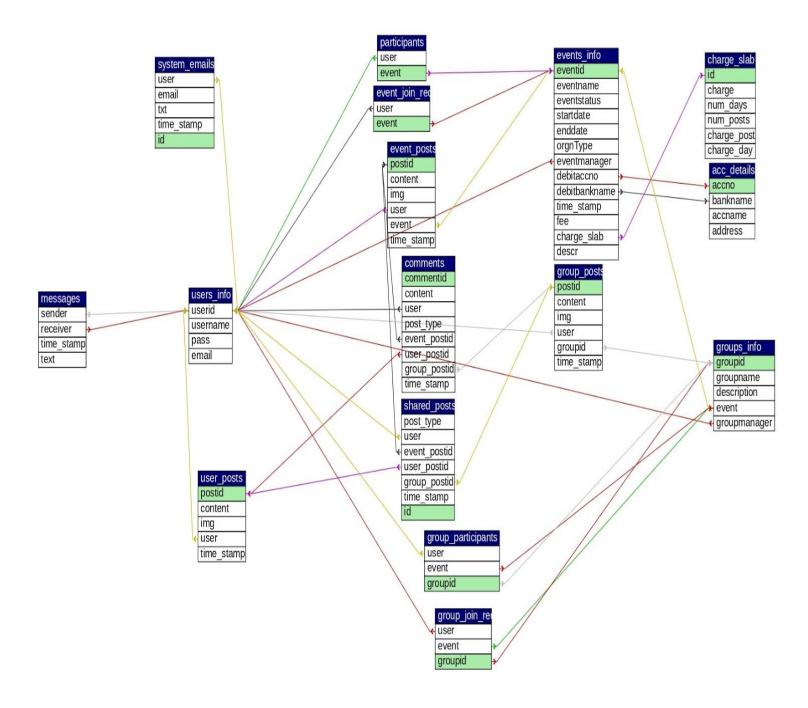
### The Applications Supported

We have designed a relational database system for a "realistic" application which is an implementation of the system using MySQL(MariaDB), HTML, PHP, JavaScript. The application is a mutli-tier system, with any popular web browser at the client side and HTTP server with PHP parser and bridge to the back-end MySQL(MariaDB) database at the server side. The system is expected to support all the queries and operations of the SCC system.

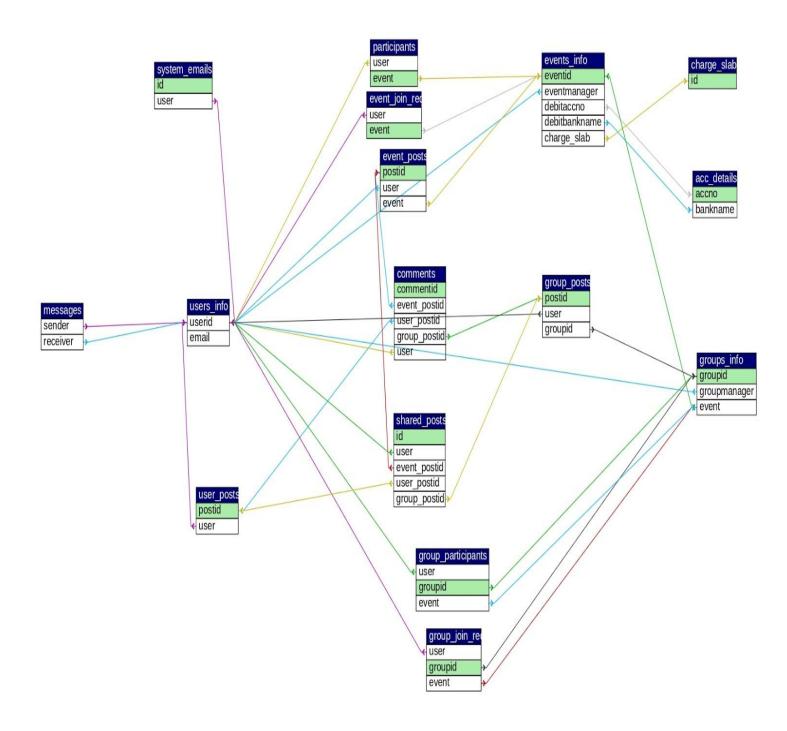
# E-R Diagram



# **Relational Database Design**



# Relational Database Design with only keys



#### **The Interface Design Rational**

A database management system (DBMS) interface is a user interface which allows for the ability to input queries to a database without using the query language itself.

User-friendly interfaces provided by our SCC includes the following:

#### 1. Menu-Based Interfaces for Web Clients or Browsing

These interfaces present the user with lists of options (called menus) that lead the user through the formation of a request. Basic advantage of using menus is that they remove the tension of remembering specific commands and syntax of any query language, rather than query is basically composed step by step by collecting or picking options from a menu that is basically shown by the system. Pull-down menus are a very popular technique in *Web based interfaces*. They are also often used in *browsing interface* which allows a user to look through the contents of a database in an exploratory and unstructured manner.

#### 2. Forms-Based Interfaces

A forms-based interface displays a form to each user. Users can fill out all of the form entries to insert a new data, or they can fill out only certain entries, in which case the DBMS will redeem the same type of data for other remaining entries. This type of forms are usually designed or created and programmed for the users that have no expertise in operating system. Many DBMSs have *forms specification languages* which are special languages that help specify such forms.

Example: SQL\* Forms is a form-based language that specifies queries using a form designed in conjunction with the relational database schema.b>

#### 3. Graphical User Interface

A GUI typically displays a schema to the user in diagrammatic form. The user then can specify a query by manipulating the diagram. In many cases, GUI's utilize both

menus and forms. Most GUIs use a pointing device such as a mouse, to pick certain parts of the displayed schema diagram.

#### **Interfaces for administrators**

Most database system contains privileged commands that can be used only by the **administrators**. These include commands for setting system parameters such as charges, granting account authorization, changing a schema, reorganizing the storage structures of a database.

#### The 3NF Solution

All of our tables are already in BCNF hence they are also in 3NF. For any of our table, only {Candidate Key}<sup>+</sup> = {List of all the attributes of that table}. And almost every table has only one candidate key, except for users\_info relation which has two Candidate keys (userid and email), In such a case one of them is primary key(in this example, userid) and the other is a unique key(in this example email). Hence, all the relations are in 3NF.

#### **User Manual**

This section will contain all essential information for the user to make full use of the system. This includes a description of the SCC functions and capabilities, contingencies and alternate modes of operation, as well as step-by-step procedures for system access and use.

#### 1. Logging in or Signing Up

Upon entry to the website, the user is prompted to login into their account by entering their user id and password. If the user is a new member then they may click on "New User?" or "Sign Up" to create an account in the system. Once a user has signed in or created an account, they are lead to their homepage.

#### 2. Homepage

This is where the user can access the different functionalities of the system. The user may view the events they are currently registered in along with certain details on them; event name, event id, start and end date, as well who the event manager is for that particular event. For each event they are participating in, they may, at any time, choose to withdraw from them. Clicking on "Withdraw" will automatically remove that event from the list of events they are registered in and they will not be able to access that event unless they register into it again and receive approval to join it from its creator. Users may also click on the event name which will lead them to another page, Event's Page, containing a list of the event members and details: members' user ids, usernames and email addresses.

The user may also view a list of events they can register to. This list of events contains details including the event ids, event names, start and end dates and the event manager of each event. It also includes their registration status for each event, that is, if they have already requested to register into the event but the event manager has not yet approved their request then the event status for that event will be "Your request is already in process", otherwise, if they have not registered for the event yet then they may click on "Register" which will send a request to the event manager to add them into that event.

On the homepage, the user may also view the events that he or she has created along with details on each one of them; the event names, event ids, the start and end dates, the organization type of the events, the debit account numbers as well as the debit bank name of each one of the events on the list. The user can manage the events that they created by clicking on the event name. This will lead him or her to another page where they can manage event details and event participants.

At the very top of the homepage, the user's user id is displayed with a welcome statement. The user may at any time choose to navigate to one of the following pages: "Edit Profile",

"Register Event", "Instant Messaging" or "Logout" from the top banner of the homepage. These individual options will be further discussed below.

#### 3. Instant Messaging

A user can come into contact with other users by clicking on the "Instant Messaging" tab. This leads you to the Instant Messenger, where you can see the messages you received from other people, create a new message to someone you've talked to before or to someone new, or simply continue chatting with people you've chatted before. Like all the other pages, you can easily logout from the Instant Messaging system, or simply press to go back home by clicking on the home icon.

#### 4. Edit Profile

A user may decide to edit their profile details. This page is accessible through the homepage. They may edit their user ID, username, password and organization type. However, they may not edit their email address. Once they have entered all the new values, they must click on Edit to change the details. From this page, the user may always decide to go back to the homepage by clicking on the home icon on the top left of the page or to logout by clicking on the "Logout" button on the top right of the page.

#### 5. Register Event

A user may decide to register or create an event through their homepage. To create an event, they must register the event details and debit details. Event details include the event name, the start and end dates, as well as the organization type of the event. Debit details include the account number which must be 8 digits, the account name, the address and the bank's name. To create or register the event, the user must simply click on the "Register" after filling out the registration form. From this page, the user may always decide to go back to the homepage by clicking on the home icon on the top left of the page or to logout by clicking on the "Logout" button on the top right of the page.

#### 6. Manage Event

A user may manage events that they have created by clicking on the name of their event from their homepage. This will lead them to another page containing information on the participants in the event, requests to join the event, as well as, access to two other pages: "Edit Event Details" and "Go to Event's Page". The manage event page is only accessible to the event manager.

From the manage event page, the event manager may remove participants of his or her event by clicking on "Remove" next to the participant's username and email address. This page also includes a table of participants that have requested to join the event. The event manager is the one who decides whether to approve or delete requests to join the event. If

no user has requested to join the event, then the "Approve/Delete Request" table will simply display "No requests pending".

The event manager may also decide to delete the event in its entirety by clicking on the "Delete Event" button located on the bottom right corner.

From this page, the user may always decide to go back to the homepage by clicking on the home icon located on the top left corner, to return to the previous page by clicking on the left arrow situated on the top left corner next to the home icon, or to logout by clicking on the "Logout" button located on the top right corner.

#### 7. Edit Event

This page, edit event, is only accessible by the event manager through the manage event page. If the event manager clicks on edit event details, they are lead to a page containing the event details and debit details of the event which they may modify. After changing the values, they must click on "Done" to save the modification. From this page, the user may always decide to go back to the homepage by clicking on the home icon located on the top left corner, to return to the previous page by clicking on the left arrow situated on the top left corner next to the home icon, or to logout by clicking on the "Logout" button located on the top right corner.

#### 8. Event's Page

The event's page can be accessed by the event manager through the manage event page, as well as, participants in the event through their homepage and under the events they are registered in. This page simply contains a table of all the participants in the event along with their details. Details include user ids, usernames and email addresses. From this page, the user may always decide to go back to the homepage by clicking on the home icon located on the top left corner, to return to the previous pages by clicking on the left arrow situated on the top left corner next to the home icon, or to logout by clicking on the "Logout" button located on the top right corner.

#### 9. Logout

At any time, the user may click on the "Logout" button located on the top right corner of any page. Doing so, will lead the user to the Login page and their session will have ended. In order to access their account, they would need to login once again.

#### **Authorized Use Permissions**

The first time you run the URL, it will prompt you to authorize access:

- Browse to the provided URL in your web browser.
   If you are not already logged into your account, you will be prompted to log in. If you are logged into multiple accounts, you will be asked to select one account to use for the authorization.
- 2. Click the one you want to log in from.

If you are a new visitor then you can create an account for yourself into the website and next time you can log in using your unique user Id.

Authorization information is stored on the database file system, so subsequent executions will not prompt for authorization.

#### **System Summary**

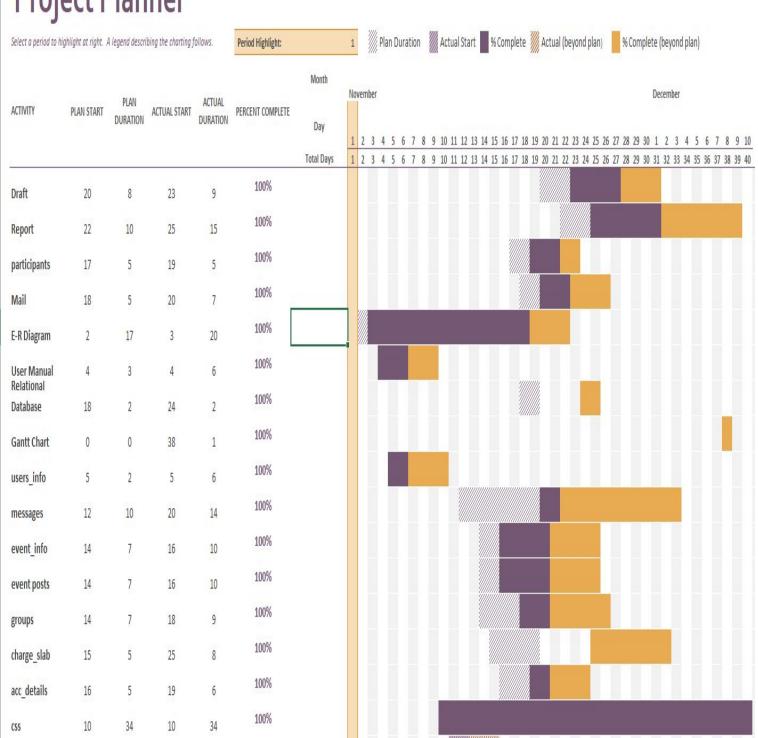
We have used MySQL(MariaDB) Database Management System to develop a Share, Contribute and Comment System (SCC). The application includes a database made up of a collection of normalized(at least 3NF) tables and web-based user interfaces to provide the various functionalities and contents provided by SCC. The SCC system enables members of an event such as an academic or community meeting, a social gathering (anniversaries, weddings, etc.) to share information (text, photos, videos) and manage get-together and keep in touch. The SCC system allows participants in an event in addition to the main event to create one or more groups: each being made up of a list of other participants with whom to share contents; and to view and add comments and content (if enabled by the curator of the group) within the system. The default group is all participants who have access to the main content and could post and comment on it. It also allows event participants (or group members) to interact among each other via "simulated" instant messaging. Furthermore, SCC allows participants to hold on-line discussions.

# **Contributions**

NAME	STUDENT ID	CONTRIBUTIONS
Soumayyah Ahmed	27771223	<ul> <li>Assumptions</li> <li>Conceptualizing E/R Diagram</li> <li>CSS part of entire Webpage</li> <li>Front End of most of the Web Interfaces</li> <li>Report &amp; Organization</li> </ul>
Florin Poenariu	40012133	<ul> <li>Conceptualizing E/R Diagram</li> <li>Developing Front End &amp; Back End of Messaging System</li> <li>Report &amp; Organization</li> <li>CSS</li> </ul>
Avnish Patel	40024628	Populated data
Sadia Anowara Smitha	40036565	<ul> <li>Assumptions</li> <li>Conceptualizing E/R Diagram</li> <li>CSS Part of entire Webpage</li> <li>BackEnd &amp;FrontEnd of Controller's webpage</li> <li>Report &amp; Organization</li> </ul>
Rajat Jaiswal	40150463	<ul> <li>Conceptualizing E/R Diagram</li> <li>Report &amp; Organization</li> <li>Developing Front End &amp; Back End of following web interfaces including queries:</li> <li>Login &amp; Registration System</li> <li>Authentication of Login</li> <li>Homepage of users, events and groups</li> <li>All the functionalities for system administrator</li> <li>Share a user, event or group post</li> <li>Comment on a post</li> <li>Post on a group or an event</li> <li>View the post on a separate page</li> <li>Registering and Managing an event</li> <li>Registering and managing a group</li> <li>Adding members through csv file.</li> <li>Editing details of user and events</li> <li>Timeline, functionality for a user to post on timeline</li> <li>Backend for Controller</li> <li>Ability to choose an access role.</li> </ul>

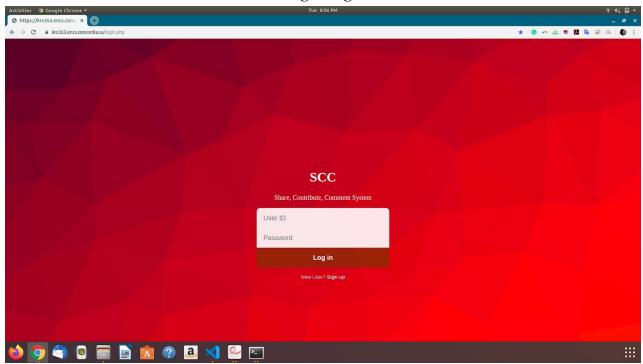
#### **Gantt Chart**

# **Project Planner**

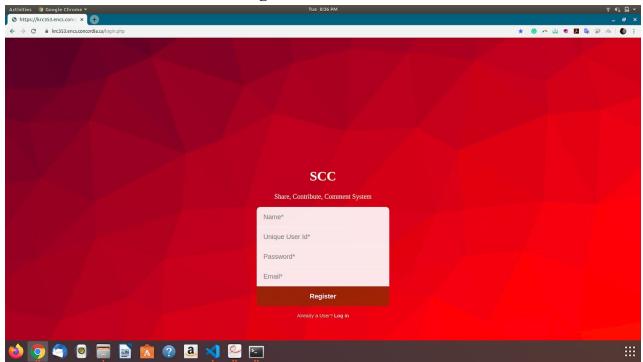


#### **Overview of the User Interface**

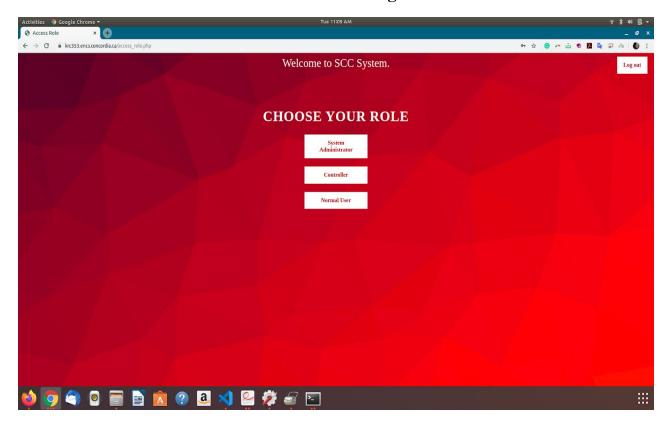
**Login Page** 



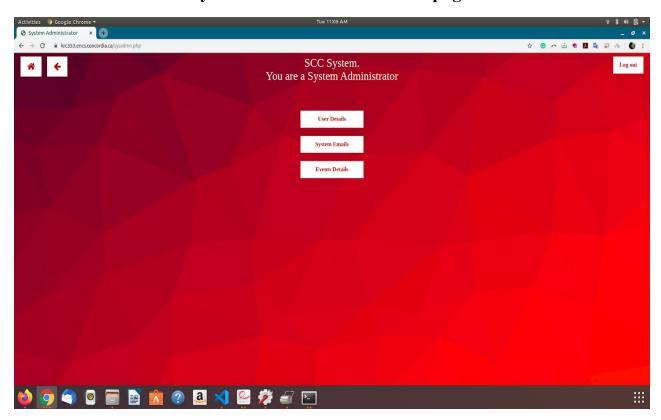
# Register A New User



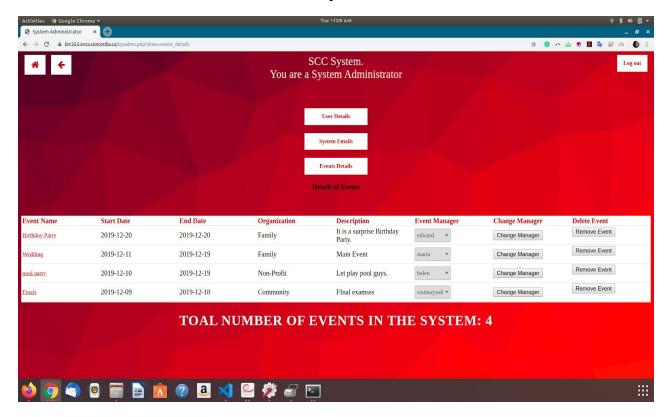
# **Access Roles Page**



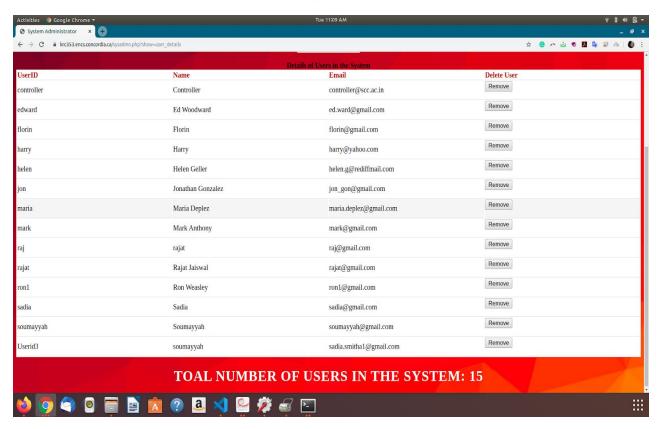
# System Administrator's Homepage



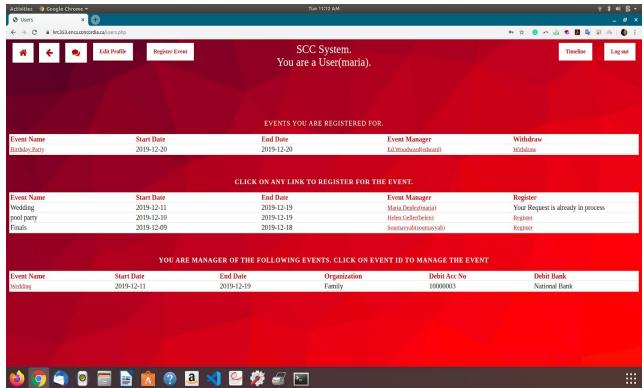
#### **Events Details for System Administrator**



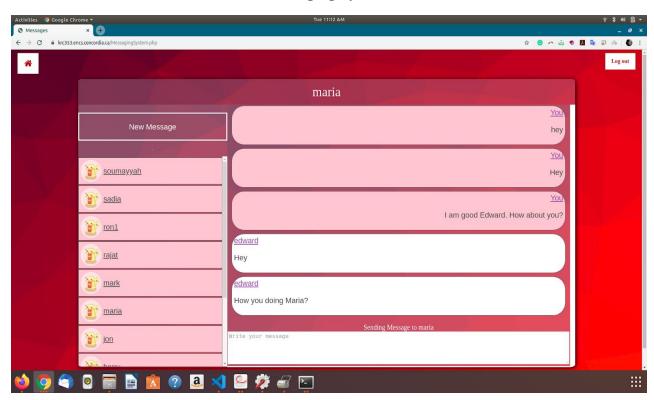
# **User Details for System Administrator**



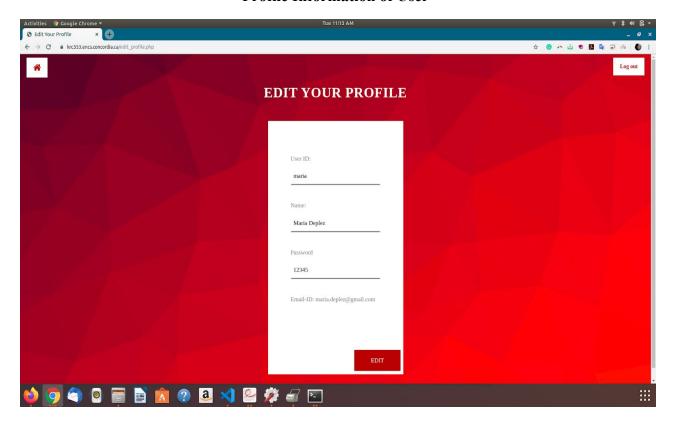
### Home Page of a User



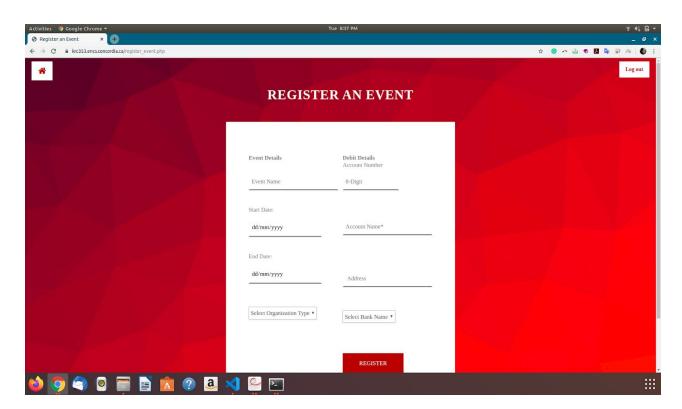
#### **Messaging System**



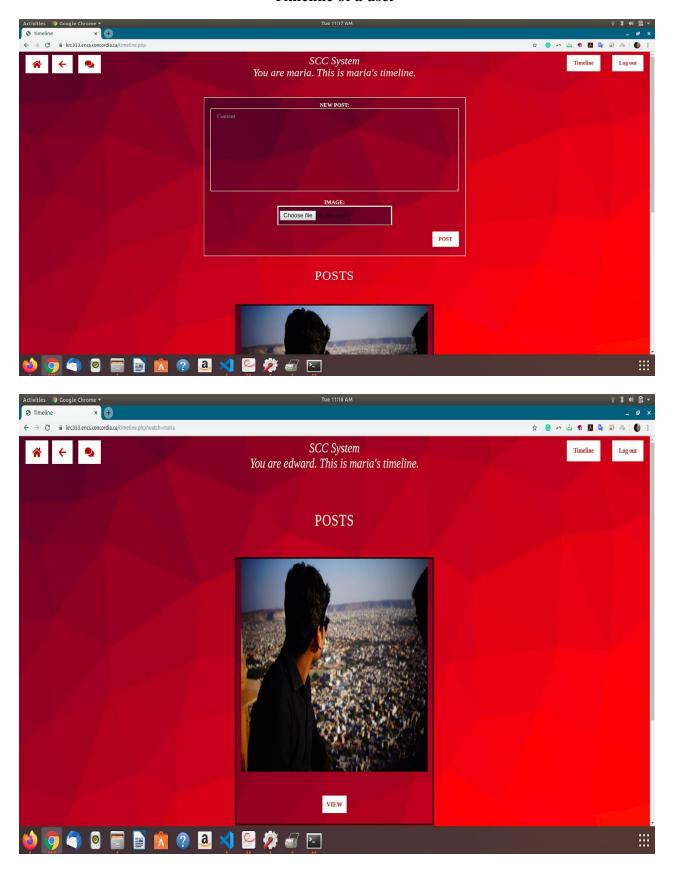
#### **Profile Information of User**



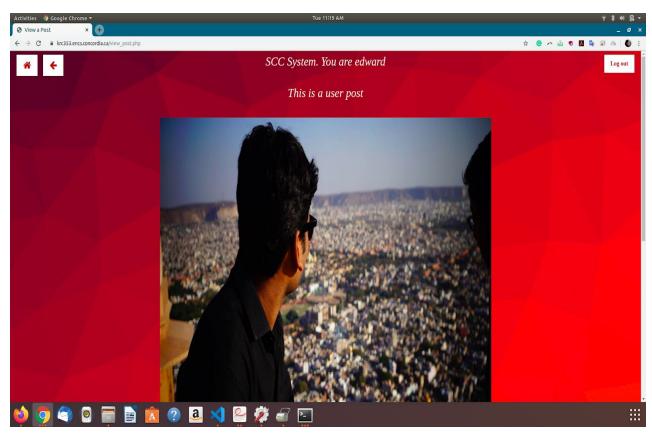
# Registering for a New Event

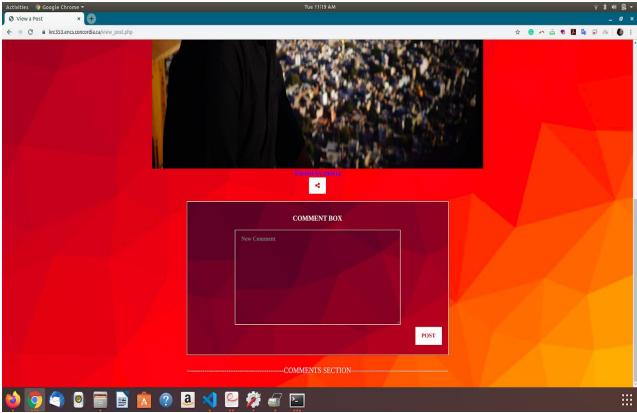


#### Timeline of a user

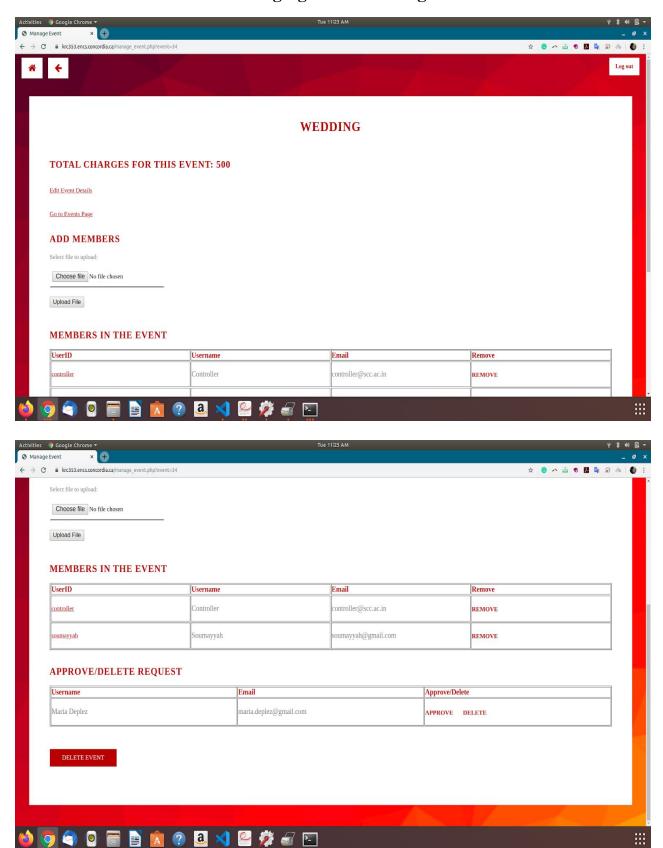


# Viewing a post

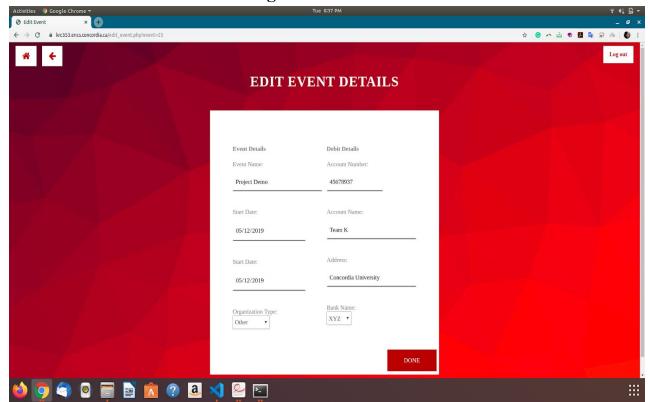




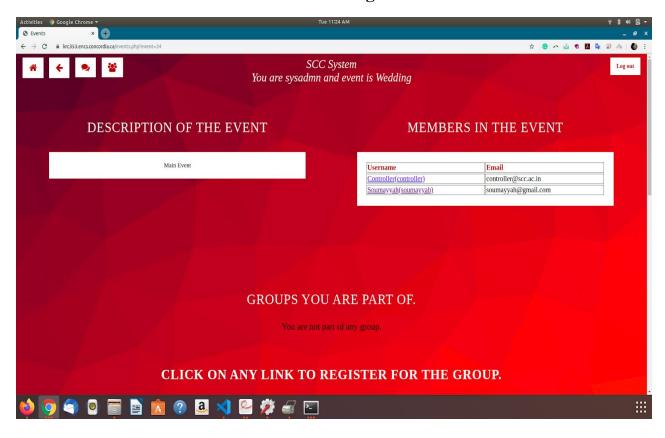
# Managing an event's Page

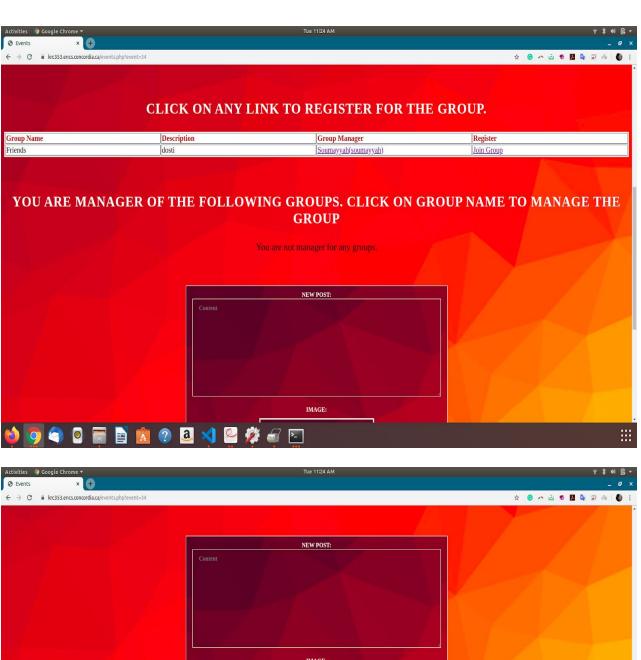


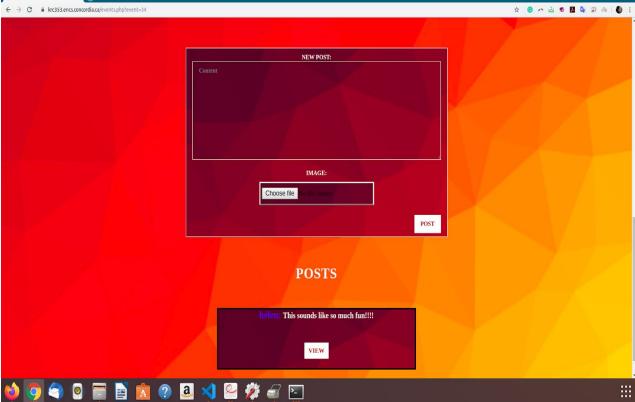
**Editing Details of an Event** 



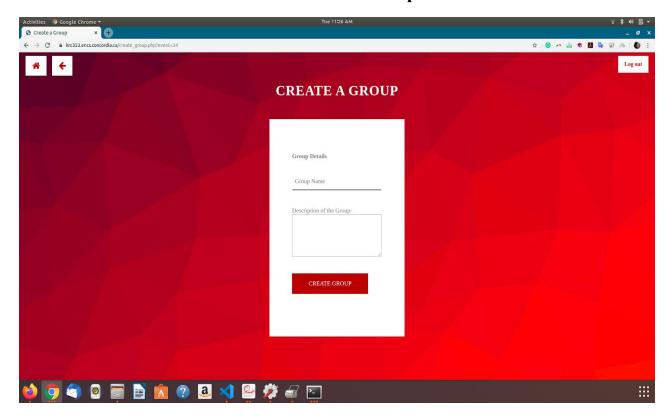
# **Event's Page**



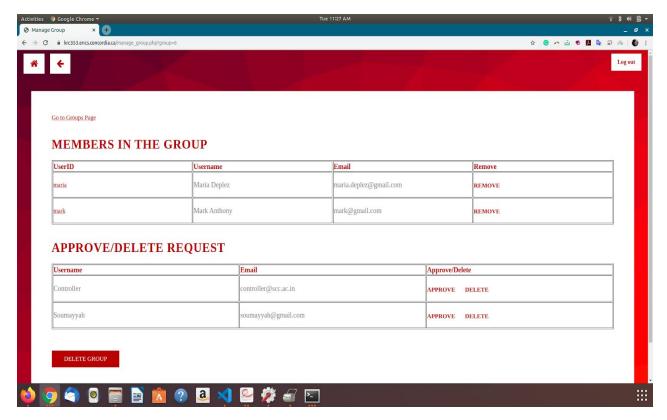




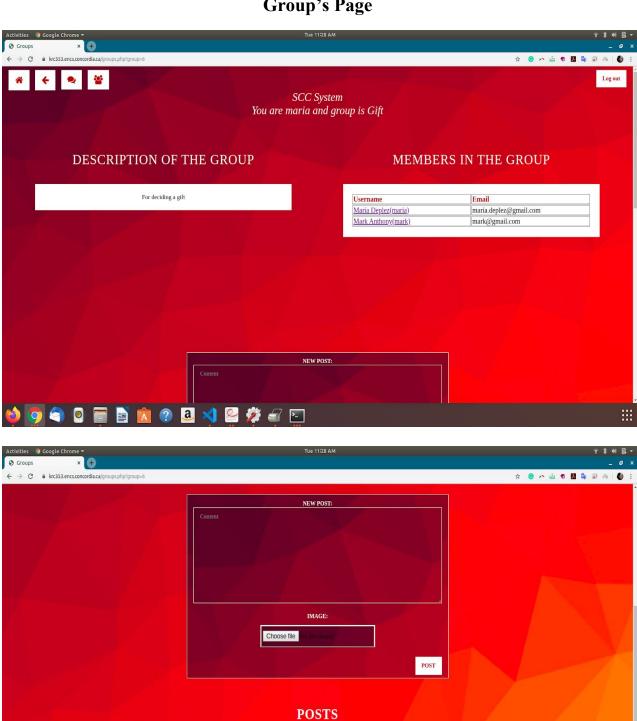
# **Create a New Group**



# Manage a Group



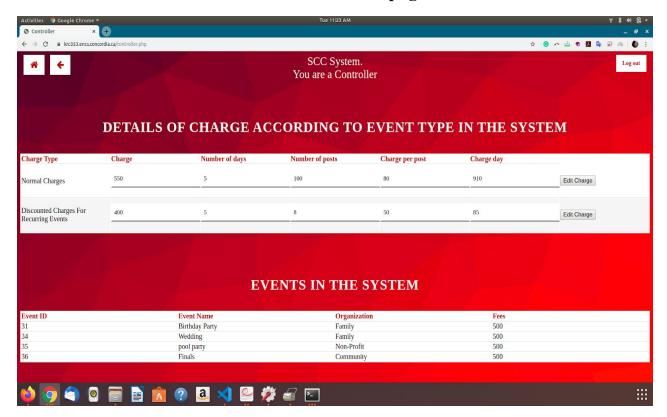
# **Group's Page**



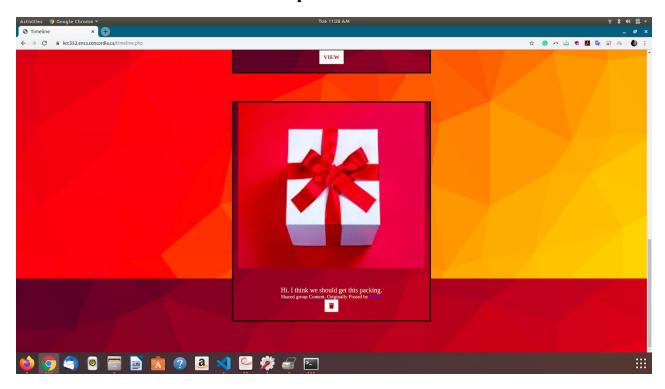
maria: Hi. I think we should get this packing.

🍅 🧑 🧠 📵 🔚 📓 효 🕐 a 刘 🖳 🎉 🔊 🖃

#### **Controller's Homepage**



# A shared post looks like this



#### Homepage

The Homepage is accessed through the logging into or creation of an account. This page is where most of the functionalities of the system are accessed from. It contains information on the details the user is registered into and the details of the events a user may register into. It enables users to withdraw from events or send requests to join events. Once a user registers into an event, their request to join pends until the event's creator approves it. The user may also view the members list of each event they are registered in. From the homepage, the users may also view the events that they have created. By clicking on the name of one of their events, they are lead to another page where they may manage event details and event participants. Users may create events by clicking on the option to register an event at the top of the homepage. By creating an event they become its manager and, therefore, are the one who can modify the event details at any time and decide who can join the event, as well as, who can remain in the event. The homepage also displays the user's user id and a welcome statement at the very top of the page. The user may, at any time, navigate to one of the following pages: "Edit Profile", "Register Event", "Instant Messaging" or "Logout" from the top banner of the homepage.

#### **VISITORS**

There are three kinds of visitors in the system.

System Administrator: the only person who can add events and assigns event managers to the new events.

Users: All the SCC users have a home page which has an email facility, list of his/her events and access to the events contents as well as the contents of each of the groups where he is an owner or member. The user can switch to one of these events by selecting it. And only the group owner has a feature to view and manage the permissions to any content; the permissions can be changed only by the owner.

Persons who have other roles in SCC could also be participants in one or more events. A participant can create a new group and become the manager of that group. They may then invite other participants of events to join the group and admit them into it if they request to join it. Any participant of the main event can request to join the group. Group members may post contents in the group which will not be accessible to anyone other than group members. Also, membership of a group is visible to all members of the group which enables them to send private communication or comments to other members in the group.

Controller: the person who sets the charge rate for the usage of the system. The basic fee for an event can be changed from time to time. Recurring events will get a discount, non-profit organizations are complementary, others are charged as determined by the current fees. There are extra charges if an event has been extended over its life-time by its event manager.

#### **Members**

Members can see all the members of a group and then can also send private messages to other members, they can comment on other groups. The comments can either be text, photos or videos and anyone from the group can post. Access is not allowed to other group contents to participants not members of the groups. Members have group attributes on top of normal users. Members can of course view other members posts and comment on them. They have the possibility of withdrawing from groups whenever they want. Depending on if they are the creator of the groups, they can edit, delete, display members. Same goes if they are creators of events, they can edit, delete and display members. Users can request to be participants of events or members of groups. Members however can only view posts and comment on other members posts from groups or events they participate in, not the other ones. The main page shows the latest photos, comments or posts from their groups.

#### Script to Create and populate the Database

```
CREATE DATABASE IF NOT EXISTS krc353 2;
use krc353 2;
DROP TABLE IF EXISTS users info;
CREATE TABLE users info (
  userid VARCHAR(30) PRIMARY KEY NOT NULL,
  username VARCHAR(255),
  pass VARCHAR(16) NOT NULL,
  email VARCHAR(30) NOT NULL,
  UNIQUE (email)
INSERT INTO users info(userid, username, pass, email)
('sysadmn', 'System Administrator', '12345', 'sysadmn@scc.ac.in'),
('controller', 'Controller', '12345', 'controller@scc.ac.in');
```

```
DROP TABLE IF EXISTS acc details;
CREATE TABLE acc details (
  accno INTEGER (16) NOT NULL,
  bankname VARCHAR(30) NOT NULL,
  address VARCHAR (255),
DROP TABLE IF EXISTS charge slab;
CREATE TABLE charge slab (
  id INTEGER AUTO INCREMENT PRIMARY KEY,
  charge INTEGER(6) NOT NULL,
  num days INTEGER (10) NOT NULL,
  num posts INTEGER (10) NOT NULL,
  charge post INTEGER NOT NULL,
  charge day INTEGER NOT NULL
);
INSERT INTO charge slab(charge, num days, num posts, charge post,
charge day) VALUES(550, 5, 100, 80, 910);
INSERT INTO charge slab(charge, num days, num posts, charge post,
charge day) VALUES(400, 5, 8, 50, 85);
INSERT INTO charge slab(charge, num days, num posts, charge post,
DROP TABLE IF EXISTS events info;
CREATE TABLE events info (
```

```
eventid INTEGER AUTO INCREMENT PRIMARY KEY,
   eventname VARCHAR (255) NOT NULL,
   eventstatus TINYINT(1) NOT NULL,
   startdate DATE NOT NULL,
  enddate DATE NOT NULL,
  orgnType VARCHAR(30) NOT NULL,
  eventmanager VARCHAR(30),
   FOREIGN KEY(eventmanager) REFERENCES users info(userid) ON UPDATE
CASCADE ON DELETE SET NULL,
  debitbankname VARCHAR(30),
   FOREIGN KEY(debitaccno, debitbankname) REFERENCES acc details(accno,
bankname) ON UPDATE CASCADE ON DELETE SET NULL,
  time stamp TIMESTAMP DEFAULT CURRENT TIMESTAMP,
  fee INTEGER,
  charge slab INTEGER,
  FOREIGN KEY(charge slab) REFERENCES charge slab(id) ON UPDATE CASCADE ON
DELETE SET NULL,
  descr text
DROP TABLE IF EXISTS participants;
CREATE TABLE participants (
  user VARCHAR(30) NOT NULL,
  PRIMARY KEY(user, event),
DELETE CASCADE,
```

```
DELETE CASCADE
);
DROP TABLE IF EXISTS event join req;
CREATE TABLE event join req (
  user VARCHAR(30) NOT NULL,
  PRIMARY KEY (user, event),
DELETE CASCADE,
DELETE CASCADE
);
DROP TABLE IF EXISTS messages;
CREATE TABLE messages (
  sender VARCHAR(30) NOT NULL,
  receiver VARCHAR(30) NOT NULL,
  time stamp TIMESTAMP DEFAULT CURRENT TIMESTAMP,
  FOREIGN KEY (sender) REFERENCES users info (userid) ON UPDATE CASCADE ON
DELETE CASCADE,
DELETE CASCADE
);
DROP TABLE IF EXISTS system emails;
```

```
CREATE TABLE system emails (
  user VARCHAR(30),
  email VARCHAR(30) NOT NULL,
  txt text,
  time stamp TIMESTAMP DEFAULT CURRENT TIMESTAMP,
  id INTEGER AUTO INCREMENT PRIMARY KEY,
   FOREIGN KEY(user) REFERENCES users info(userid) ON UPDATE CASCADE ON
DELETE CASCADE
);
DROP TABLE IF EXISTS groups info;
CREATE TABLE groups info (
  groupid INTEGER AUTO INCREMENT PRIMARY KEY,
  groupname VARCHAR(255) NOT NULL,
  groupmanager VARCHAR(30),
  FOREIGN KEY(groupmanager) REFERENCES users info(userid) ON UPDATE
CASCADE ON DELETE CASCADE,
DELETE CASCADE
);
DROP TABLE IF EXISTS group join req;
CREATE TABLE group join req(
  user VARCHAR(30) NOT NULL,
  groupid INTEGER NOT NULL,
```

```
PRIMARY KEY(user, groupid),
  FOREIGN KEY(user) REFERENCES users info(userid) ON UPDATE CASCADE ON
DELETE CASCADE,
   FOREIGN KEY(event, groupid) REFERENCES groups info(event, groupid) ON
UPDATE CASCADE ON DELETE CASCADE
);
DROP TABLE IF EXISTS group participants;
CREATE TABLE group participants(
  user VARCHAR(30) NOT NULL,
  groupid INTEGER NOT NULL,
  PRIMARY KEY (user, groupid),
  FOREIGN KEY(user) REFERENCES users info(userid) ON UPDATE CASCADE ON
DELETE CASCADE,
  FOREIGN KEY(event, groupid) REFERENCES groups info(event, groupid) ON
UPDATE CASCADE ON DELETE CASCADE
);
DROP TABLE IF EXISTS event posts;
CREATE TABLE event posts(
  postid INTEGER AUTO INCREMENT PRIMARY KEY,
  user VARCHAR(30) NOT NULL,
  time stamp TIMESTAMP DEFAULT CURRENT TIMESTAMP,
```

```
DELETE CASCADE,
DELETE CASCADE
);
DROP TABLE IF EXISTS user posts;
CREATE TABLE user posts(
  postid INTEGER AUTO INCREMENT PRIMARY KEY,
  time stamp TIMESTAMP DEFAULT CURRENT TIMESTAMP,
DELETE CASCADE
);
DROP TABLE IF EXISTS group posts;
CREATE TABLE group posts(
  postid INTEGER AUTO INCREMENT PRIMARY KEY,
  groupid INTEGER NOT NULL,
  time stamp TIMESTAMP DEFAULT CURRENT TIMESTAMP,
```

```
FOREIGN KEY(groupid) REFERENCES groups info(groupid) ON UPDATE CASCADE
ON DELETE CASCADE
);
DROP TABLE IF EXISTS shared posts;
CREATE TABLE shared posts(
  post type ENUM('event', 'user', 'group') NOT NULL,
       FOREIGN KEY (user) REFERENCES users info (userid) ON UPDATE CASCADE ON
DELETE CASCADE,
  event postid INTEGER NULL,
       FOREIGN KEY (event postid) REFERENCES event posts (postid) ON UPDATE
CASCADE ON DELETE CASCADE,
  user postid INTEGER NULL,
       FOREIGN KEY (user postid) REFERENCES user posts (postid) ON UPDATE
CASCADE ON DELETE CASCADE,
  group postid INTEGER NULL,
      FOREIGN KEY (group postid) REFERENCES group posts (postid) ON UPDATE
CASCADE ON DELETE CASCADE,
  time stamp TIMESTAMP DEFAULT CURRENT TIMESTAMP,
  id INTEGER AUTO INCREMENT PRIMARY KEY,
       (post type = 'event' AND event postid IS NOT NULL) OR
       (post_type = 'user' AND user postid IS NOT NULL) OR
       (post type = 'group' AND group postid IS NOT NULL)
  ),
           (event postid IS NOT NULL AND group postid IS NULL AND
user postid IS NULL) OR
```

```
(event postid IS NULL AND group postid IS NOT NULL AND
user_postid IS NULL) OR
           (event postid IS NULL AND group postid IS NULL AND user postid
IS NOT NULL)
DROP TABLE IF EXISTS comments;
CREATE TABLE comments(
  commentid INTEGER AUTO INCREMENT PRIMARY KEY,
  user VARCHAR(30) NOT NULL,
  post type ENUM('event', 'user', 'group') NOT NULL,
  event postid INTEGER NULL,
  FOREIGN KEY(event postid) REFERENCES event posts(postid) ON UPDATE
CASCADE ON DELETE CASCADE,
  user postid INTEGER NULL,
  FOREIGN KEY (user postid) REFERENCES user posts (postid) ON UPDATE CASCADE
ON DELETE CASCADE,
  group postid INTEGER NULL,
  FOREIGN KEY(group postid) REFERENCES group posts(postid) ON UPDATE
CASCADE ON DELETE CASCADE,
  time stamp TIMESTAMP DEFAULT CURRENT TIMESTAMP,
  FOREIGN KEY(user) REFERENCES users info(userid) ON UPDATE CASCADE ON
DELETE CASCADE,
       (post type = 'event' AND event postid IS NOT NULL) OR
       (post type = 'user' AND user postid IS NOT NULL) OR
       (post type = 'group' AND group postid IS NOT NULL)
```

```
CHECK (

(event_postid IS NOT NULL AND group_postid IS NULL AND

user_postid IS NULL) OR

(event_postid IS NULL AND group_postid IS NOT NULL AND

user_postid IS NULL) OR

(event_postid IS NULL AND group_postid IS NULL AND user_postid

IS NOT NULL)

)

);
```

## Git Log

commit 954804d58a0860c255dcc62a6ee9a318baa1a7f9

Author: rajat499 <cs5170415@cse.iitd.ac.in>

Date: Tue Dec 10 10:35:51 2019 -0500

Report changes

commit 1f5a6c2a1414c8ebf83a05ed0869c0ff21d0f1a9

Author: rajat499 <cs5170415@cse.iitd.ac.in>

Date: Tue Dec 10 08:27:15 2019 -0500

Remove files

commit f156fea779bd4b54ea1556d9db8a4b9d3f2e481f

Author: rajat499 <cs5170415@cse.iitd.ac.in>

Date: Tue Dec 10 08:23:06 2019 -0500

create databse script

commit 0141b1d09f6c39b49f24410433717b7cbca64850

Author: rajat499 <cs5170415@cse.iitd.ac.in>

Date: Tue Dec 10 06:06:39 2019 -0500

Update gitignore

commit 5e8964d48a57c969beeabc5ae838352f086a5db1

Author: rajat499 <cs5170415@cse.iitd.ac.in>

Date: Tue Dec 10 06:04:53 2019 -0500

Add Project Description

commit c73929c2ff888015368ddf9e9ec69d76cf2fafad

Author: rajat499 <cs5170415@cse.iitd.ac.in>

Date: Tue Dec 10 05:24:07 2019 -0500

Every functionality done. Reorganized Project foler

commit 6c4469fa9ff6641ed11df6ebedc0a220cb423ed4

Author: rajat499 <cs5170415@cse.iitd.ac.in>

Date: Thu Dec 5 00:23:23 2019 -0500

System Admin and Timeline completely done

commit 933f06cfb2cd0485e682cf0afb08d0e6fe54ee2e

Author: rajat499 <cs5170415@cse.iitd.ac.in>

Date: Wed Dec 4 19:58:54 2019 -0500

Posts, Comments, Share System Working

commit 0730500b0f18aa81b17f708f3964aed91a2f7e43

Author: rajat499 <cs5170415@cse.iitd.ac.in>

Date: Tue Dec 3 19:36:26 2019 -0500

Messaging system works by florin, CSS to multiple files and controller done

commit ce5918e72be0f2c1e771988ee4434e7fa6082d11

Author: rajat499 <cs5170415@cse.iitd.ac.in>

Date: Tue Dec 3 19:34:46 2019 -0500

Messaging system works by florin, CSS to multiple files and controller done

commit 4b41228ab2637634e8fcd9da63dbfe79203de6fa

Author: rajat499 <cs5170415@cse.iitd.ac.in>

Date: Thu Nov 28 16:16:38 2019 -0500

Added CSS Update branches

commit 56daa082c3562c4e5559c74e9ca6e737cb551099

Author: rajat499 <cs5170415@cse.iitd.ac.in>

Date: Tue Nov 26 00:36:00 2019 -0500

Managing events done. Events Page left.

commit 9bf9ba3ce782676ed8dd6e61e93dca0a5e44fdd8

Author: rajat499 <cs5170415@cse.iitd.ac.in>

Date: Sat Nov 23 18:47:48 2019 -0500

Update

commit cf6b77666645351d94e7de94ccaac4435579ef43

Author: rajat499 <cs5170415@cse.iitd.ac.in>

Date: Fri Nov 22 17:23:40 2019 -0500

Add event. Request to join. Withdraw. Edit Details. Redirect when logged in

commit e8307250bdb2f5c576d8b2ef9fae59a7d58cffc1

Author: rajat499 <cs5170415@cse.iitd.ac.in>

Date: Thu Nov 21 10:55:48 2019 -0500

Completed Login and authenticate system. Fully Functioning

commit 78ab13f2c61b9e4e65e129af5334e8463199b573

Author: rajat499 <cs5170415@cse.iitd.ac.in>

Date: Tue Nov 19 16:10:09 2019 -0500

Remove unnecessary files

commit 053074ede73f308ad57e4a46394cf2ca7c54e5ff

Author: rajat499 <cs5170415@cse.iitd.ac.in>

Date: Tue Nov 19 14:03:13 2019 -0500

Initialize P2

commit 0ba17898feeabc4a675578c06c3db3afac645fed

Author: rajat499 <cs5170415@cse.iitd.ac.in>

Date: Tue Sep 24 08:13:05 2019 +0530

#### Final Submission fro P1

commit c27812c8bad788791e80ff2033ec6bc13fd9d954

Author: rajat499 <cs5170415@cse.iitd.ac.in>

Date: Mon Sep 23 20:50:41 2019 +0530

Added new php files and reorganized the code

commit 0d21b9a44d122635d78845a361c98fd1c0d86ed7

Author: rajat499 <cs5170415@cse.iitd.ac.in>

Date: Mon Sep 23 20:48:58 2019 +0530

Removed Unnecessary Files

commit 8c8def8f3d6d11f431a09d40757c41e860463257

Author: Rajat Jaiswal <32504597+rajat499@users.noreply.github.com>

Date: Sun Sep 22 01:35:44 2019 +0530

Add files via upload

commit 8ee3c9f8afeb5a2aa959841eeeb7ef84b58bc234

Author: Rajat Jaiswal <32504597+rajat499@users.noreply.github.com>

Date: Sun Sep 22 01:34:49 2019 +0530

Delete role.csv

commit d272c8297b016b5163b2bd34d706bbe907a1949b

Author: Rajat Jaiswal <32504597+rajat499@users.noreply.github.com>

Date: Sun Sep 22 01:34:40 2019 +0530

Delete people.csv

commit f2205e7e271be686c43b764acb9181028eeda22d

Author: Rajat Jaiswal <32504597+rajat499@users.noreply.github.com>

Date: Sun Sep 22 01:34:31 2019 +0530

Delete event.csv

commit b9fc1afd7441de067bdfc2007167fc7119098a74

Author: Rajat Jaiswal <32504597+rajat499@users.noreply.github.com>

Date: Sun Sep 22 01:02:01 2019 +0530

Add files via upload

### **Database and its contents**

```
mysql> show tables;
+----+
| Tables_in_krc353_2 |
+----+
acc_details |
| charge_slab
comments
| event_join_req |
| event_posts
| events_info
group_join_req |
| group_participants |
| group_posts
groups_info
messages
participants
| shared_posts
| system_emails
user_posts
users_info
+----+
16 rows in set (0.00 sec)
mysql> select * from acc_details;
+----+
| accno | bankname | accname | address
+-----+
| 10000003 | National Bank | Sadia | 1585 Guy Street
```

```
| 10000005 | National Bank | Rajat | Delhi |
| 10000330 | State Bank | Soumi | 123 rue berri |
| 12345678 | Royal Bank | harry | 3225 avenue linton |
| 45678937 | Royal Bank | Team K | Concordia University |
| 48965774 | National Bank | Ed Woodward | Wellington Street |
+----+
6 rows in set (0.00 sec)
mysql> select * from charge_slab;
+---+-----+
| id | charge | num_days | num_posts | charge_post | charge_day |
+---+----+
| 1 | 550 | 5 | 100 | 80 | 910 |
| 2 | 400 | 5 | 8 | 50 | 85 |
| 3 | 0 | 0 | 0 |
                       0 |
                             0 |
+---+----+
mysgl> select * from comments where user<>"helen";
--+-----+
| commentid | content
                                                | user | post_type | event_postid |
user_postid | group_postid | time_stamp |
--+------+
   102 | Wassup
                                             | controller | user |
                                                                 NULL |
                                                                          23
    NULL | 2019-12-05 14:10:39 |
103 | Man your weddings take too much of time.
                                                         | maria
                                                                 | event |
47 | NULL | NULL | 2019-12-05 14:10:50 |
   105 | hii
                                           | soumayyah | event |
                                                                 28 |
                                                                       NULL |
NULL | 2019-12-05 14:22:10 |
                                            sysadmn user |
                                                                          28
   106 | yo loool
                                                                NULL |
    NULL | 2019-12-05 15:14:28 |
```

108   BKJBASJKFBASNFA NULL   NULL   2019-12-07 04:07:57	mark   event   52
109   Welcome to SCC system Mark !!   36   NULL   2019-12-08 03:03:55	maria   user   NULL
110   It is very plain Try to change it. 37   NULL   2019-12-08 03:04:47	maria   user   NULL
111   Thanks Maria ! 36   NULL   2019-12-08 03:06:34	mark   user   NULL
113   Okay. What do you suggest? How it should be? NULL   37   NULL   2019-12-08 03:15:29	mark   user
115   It is quite plain Maria. This is what you told Maria group   NULL   NULL   2   2019-12-08 03:	
117   Happy Birthday NULL   NULL   2019-12-08 07:49:40	controller   event   52
118   Happy Birthday NULL   NULL   2019-12-08 07:53:05	controller   event   52
124   oh yeah sucks 35   NULL   2019-12-08 12:43:56	soumayyah   user   NULL
125   hi NULL   2019-12-08 12:49:04	soumayyah   event   52   NULL
126   hi NULL   2019-12-08 12:50:04	soumayyah   event   52   NULL
127   hi NULL   2019-12-08 12:56:32	soumayyah   event   52   NULL
128   hi NULL   2019-12-08 12:59:05	soumayyah   event   52   NULL
129   hi NULL   2019-12-08 13:00:47	soumayyah   event   52   NULL
130   hi NULL   2019-12-08 13:00:57	soumayyah   event   52   NULL
131   hi NULL   2019-12-08 13:01:02	soumayyah   event   52   NULL
132   hi NULL   2019-12-08 13:03:16	soumayyah   event   52   NULL
143   Beautiful   NULL   2019-12-08 13:56:50	edward   user   NULL   29

```
mysql> select * from event_join_req;
+----+
| user | event |
+----+
| Userid3 | 31 |
| maria | 34 |
+----+
2 rows in set (0.00 sec)
mysql> select * from event_posts;
+-----+
                                          user | event | time_stamp |
| postid | content
                 | img
+-----+
| 28 | Hey
                                       | edward | 31 | 2019-12-05 11:55:59 |
| 47 | Henna
                     | uploads/soumayyah_31_eventimg_1575572744.jpg | soumayyah | 31 |
2019-12-05 14:05:44
49 | I like Western marriage more. | uploads/maria_31_eventimg_1575573011.jpeg | maria |
31 | 2019-12-05 14:10:11 |
52 | Happy birthday | uploads/maria_31_eventimg_1575573567.jpeg | maria | 31 |
2019-12-05 14:19:27 |
                  | uploads/soumayyah_36_eventimg_1575828166.jpeg | soumayyah | 36 |
| 57 |
2019-12-08 13:02:46 |
| 58 | This sounds like so much fun!!!! |
                                                | helen | 34 | 2019-12-08
13:22:32 |
6 rows in set (0.01 sec)
mysql> select * from events_info;
```

+++++++
+
eventid   eventname   eventstatus   startdate   enddate   orgnType   eventmanager   debitaccno
++++++
31   Birthday Party   1   2019-12-20   2019-12-20   Family   edward   48965774   National Bank   2019-12-05 11:17:53   500   1   It is a surprise Birthday Party.
34   Wedding
35   pool party   1   2019-12-10   2019-12-19   Non-Profit   helen   12345678   Royal Bank   2019-12-05 14:03:57   500   1   Let play pool guys.
36   Finals   1   2019-12-09   2019-12-18   Community   soumayyah   10000330   State Bank   2019-12-07 20:34:56   500   1   Final examsss
++
4 rows in set (0.00 sec)
mysql> select * from group_join_req;
+++   user
++
controller   31   6
soumayyah   31   6
++
2 rows in set (0.00 sec)
mysql> select * from group_posts;
++
postid   content   img   user   groupid   time_stamp
+

```
2 | Hi. I think we should get this packing. | uploads/maria_6_groupimg_1575760796.jpeg | maria
  6 | 2019-12-07 18:19:56 |
                   | uploads/soumayyah_2_groupimg_1575768632.jpg | soumayyah |
  4 |
                                                                  2 |
2019-12-07 20:30:32 |
2 rows in set (0.00 sec)
mysql> select * from groups info;
+-----+
groupid groupname description event groupmanager
+-----+
 2 | Friends | dosti | 34 | soumayyah |
   6 | Gift | For deciding a gift | 31 | maria |
+-----+
2 rows in set (0.00 sec)
mysql> select * from group_participants;
+----+
| user | event | groupid |
+----+
| maria | 31 | 6 |
| mark | 31 | 6 |
| maria | 34 | 2 |
| sadia | 34 | 2 |
| soumayyah | 34 | 2 |
+----+
5 rows in set (0.00 sec)
mysql> select * from messages where text<>"hey";
```

```
| sender | receiver | text
                          | time_stamp |
| florin | sadia | Hey how are you? | 2019-12-05 14:03:35 |
| florin | rajat | Hey buddy, how are you?
   | 2019-12-05 14:03:45 |
| florin | soumayyah | Heyyyyyyyyy :D | 2019-12-05 14:03:55 |
| florin | harry | holaaaaaaaaa | 2019-12-05 14:04:19 |
| florin | edward | hola
          | 2019-12-05 14:05:30 |
| florin | jon | whatsup | 2019-12-05 14:05:40 |
| florin | ron1 | hola
            | 2019-12-05 14:05:53 |
| florin | mark | hey buddy
         | 2019-12-05 14:06:03 |
| florin | soumayyah | are you there? | 2019-12-05 14:06:09 |
| florin | maria | meow | 2019-12-05 14:07:16 |
| florin | helen | hey im florin | 2019-12-05 14:09:06 |
| helen | florin | hey how are you | 2019-12-05 14:13:03 |
| helen | jon | hey
            | 2019-12-05 14:13:29 |
| edward | florin | hey
            | 2019-12-05 14:14:18 |
| edward | rajat | hey
            | 2019-12-05 14:14:44 |
| edward | ron1 | hey
            | 2019-12-05 14:14:52 |
| harry | florin | hey
            | 2019-12-05 14:15:33 |
| jon | edward | hey
             | 2019-12-05 14:17:12 |
```

```
| jon
     | soumayyah | hey
            | 2019-12-05 14:18:00 |
| maria | edward | hey
            | 2019-12-05 14:18:25 |
      | jon |
                              | 2019-12-05 14:19:46 |
| mark
| rajat | edward | hey
            | 2019-12-05 14:20:29 |
| sadia | edward | hey
            | 2019-12-05 14:22:26 |
       | florin | harry
                                | 2019-12-05 14:22:31 |
sadia
sadia
       | harry | hey
            | 2019-12-05 14:22:40 |
| maria
       | soumayyah | hi
                                  | 2019-12-05 14:44:48 |
       | sadia | AFLJHSBFLJKAEWBF | 2019-12-07 04:09:00 |
| mark
| mark
       | soumayyah | Hi
                                  | 2019-12-07 14:55:56 |
| maria
       | soumayyah | Wassup | 2019-12-07 14:56:01 |
| maria
      | soumayyah | Wassup | 2019-12-07 15:05:50 |
| maria
| maria | edward | Hey
            | 2019-12-07 15:06:07 |
| helen | soumayyah | hey
            | 2019-12-08 14:10:15 |
| helen | soumayyah | how are you? | 2019-12-08 14:12:49 |
| edward | maria | How you doing Maria? | 2019-12-08 14:14:48 |
| maria | edward | I am good Edward. How about you? | 2019-12-08 14:15:34 |
| soumayyah | helen | hola
                                 | 2019-12-08 14:17:19 |
| soumayyah | jon | wsassup | 2019-12-08 14:30:17 |
| soumayyah | jon | wassup
           | 2019-12-08 14:30:29 |
```

#### 39 rows in set (0.01 sec)

```
mysql> select * from participants;
+----+
| user | event |
+----+
| controller | 31 |
| edward | 31 |
| harry | 31 |
| jon | 31 |
| maria | 31 |
| mark | 31 |
| soumayyah | 31 |
| controller | 34 |
| soumayyah | 34 |
| controller | 35 |
| edward | 35 |
| helen | 35 |
| soumayyah | 35 |
| soumayyah | 36 |
+----+
14 rows in set (0.00 sec)
mysql> select * from shared_posts;
+-----+
49 | NULL | NULL | 2019-12-08 02:53:32 | 24 |
event mark
| user | edward | NULL | 29 | NULL | 2019-12-08 13:44:50 | 27 |
| event | soumayyah | 47 | NULL | NULL | 2019-12-08 14:05:47 | 28 |
```

```
3 rows in set (0.01 sec)
mysql> select * from system_emails;
Empty set (0.00 sec)
mysql> select * from user_posts;
+-----+
                                                      user | time stamp |
| postid | content
                               | img
| 23 | Hey
                                                | controller | 2019-12-05 14:10:15 |
| 24 | hi
                                                | soumayyah | 2019-12-05 14:14:34 |
| 26 | Hi
                            | uploads/sysadmn_userimg_1575573569.jpg | sysadmn |
2019-12-05 14:19:29 |
                                                  | sysadmn | 2019-12-05 14:19:39 |
| 27 | Hey
  28 | Hey
                             uploads/sysadmn_userimg_1575573692.jpg | sysadmn |
2019-12-05 14:21:32 |
| 29 |
                           | uploads/soumayyah_userimg_1575592234.png | soumayyah |
2019-12-05 19:30:35 |
                                                   | maria | 2019-12-07 18:25:11 |
| 32 | Hey fellas
                              1
| 33 | neeeed fooood
                                  | uploads/soumayyah_userimg_1575769059.jpeg | soumayyah |
2019-12-07 20:37:39 |
                           | uploads/soumayyah_userimg_1575769090.jpeg | soumayyah |
 34 |
2019-12-07 20:38:10 |
| 35 | this was terrible
                                 | uploads/soumayyah_userimg_1575769137.jpeg | soumayyah |
2019-12-07 20:38:57 |
| 36 | Hi Guys.. Welcome to my Timeline
                                                              | mark
                                                                       | 2019-12-08
02:55:59 |
37 | What do you think about this gift packing? | uploads/mark_userimg_1575792159.jpeg
                                                                                | mark
| 2019-12-08 03:02:39 |
 39 | Hey
                                                  | helen | 2019-12-08 12:30:04 |
```

#### 13 rows in set (0.00 sec)

```
mysql> select * from users_info;
+----+
                       | pass | email
| userid | username
| controller | Controller | 12345 | controller@scc.ac.in |
| edward | Ed Woodward | 12345 | ed.ward@gmail.com
                    | 12345 | florin@gmail.com
| florin
       | Florin
                    | 12345 | harry@yahoo.com
| harry
        | Harry
| helen
        | Helen Geller
                       | 12345 | helen.g@rediffmail.com |
       | Jonathan Gonzalez | 12345 | jon_gon@gmail.com
| jon
| maria
        | Maria Deplez | 12345 | maria.deplez@gmail.com |
        | Mark Anthony | 12345 | mark@gmail.com
| mark
| raj
       | rajat
                   | 12345 | raj@gmail.com
       | Rajat Jaiswal
                     | 12345 | rajat@gmail.com
| rajat
| ron1
        | Ron Weasley
                        | 12345 | ron1@gmail.com
sadia
                     | 12345 | sadia@gmail.com
        Sadia
| soumayyah | Soumayyah
                           | 12345 | soumayyah@gmail.com |
sysadmn | System Administrator | 12345 | sysadmn@scc.ac.in
| Userid3 | soumayyah
                       | 12345 | sadia.smitha1@gmail.com |
+-----+
15 rows in set (0.01 sec)
```

# References

Interfaces in DBMS. Retrieved from <a href="https://www.geeksforgeeks.org/interfaces-in-dbms/">https://www.geeksforgeeks.org/interfaces-in-dbms/</a>.