Data Bases & Web Services Project

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ConnectU

1. General description
   1. Intended functionality

Our project, named **ConnectU**, is a comprehensive database management system designed to connect students across Constructor University by providing easy access to activities on campus. The platform aims to strengthen campus community engagement by offering a seamless way to discover when and where activities and events are happening, whether they are specific to a college or campus-wide.

As Constructor University is home to students from over 122 nationalities, **ConnectU** will play a vital role in fostering connections between the university's diverse, international community. Students will have the opportunity to interact with peers from different cultures through activities and events, creating an inclusive and interconnected environment.

ConnectU starts as a web platform where users can explore the four colleges at Constructor University. Each college will have its own themed schedule for activities and office hours, along with details on Resident Learning Mentors (RLMs), Resident Assistants (REAs), and Peer Mentors, who can be contacted directly via email for inquiries.

Additionally, **ConnectU** will feature a page that consolidates activities happening at clubs on campus. Users can search for a specific activity by name and check its current availability, as well as view details such as time, location, allowing students from different backgrounds to come together around shared interests.

As the platform evolves, it could expand to include additional features, such as a notification system for upcoming events or personalized schedules based on users' preferences. **ConnectU** is designed to be scalable and adaptable to the needs of Constructor University's dynamic and diverse campus community.

There won't be a need to store the data of our users as accounts will not be created.

2. ER diagram
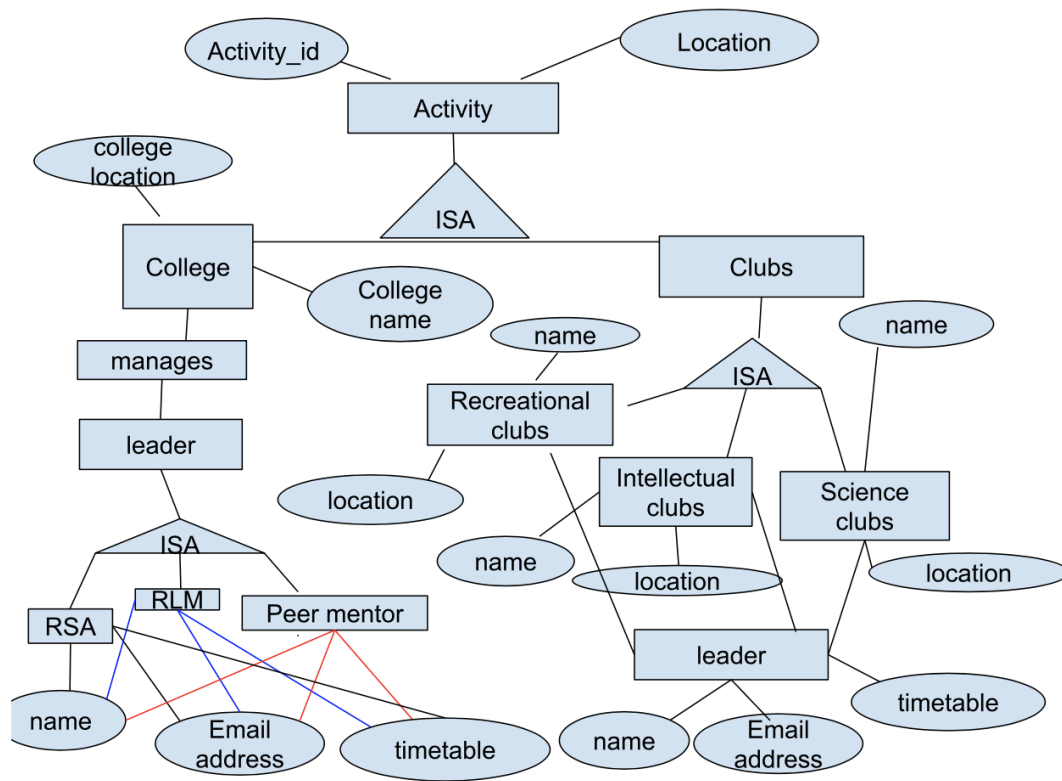
3. User interactional with the system
1. What the user sees
- The user sees a list of activities to choose from
- The user also sees a list of colleges and clubs and whether they have an activity and the calendar of activities planned by the different clubs and colleges.
- They can also search the name of the activity or clubs, and they can see their timetable with the location and date and time

2. What actions can the user take

- The user can search for a specific activity (from the drop-down menu) and that activity will show and if they do not specify the club or college, a list of colleges or clubs having that activity (if many) will appear and the location as well as the exact date and time as well as the organizer. If they specify a college, then that activity will appear if it is happening in that college as well as the location and time. If that college is not having that activity and activity not found will be shown
- The user can search for a college by its name and their timetable or calendar will appear. as well as the location and time. .
- The same action as described above can be done by typing the name of the club.
- The location or the organizers (Residential Life Manager, Peer Mentor, ...) can also be searched and the different activities in which they are involved will show.

3. **Action results**
   The results of the actions taken by the user are the following
   - The user can select an activity from the drop-down menu, it will result in all the locations where that activity is taking place, when (the date and the exact time) and the organizers.
   - One can get a list of activities and the date and time by searching for the colleges, clubs or locations

4. **Illegal actions**
   - Some illegal actions users could possibly attempt within the **ConnectU** system may include unauthorized changes such as altering office hours, modifying activity schedules, or tampering with organizers' contact details. Users could also attempt to add or remove fake events or create non-existent offices or mentors.
   - By utilizing SQL injection techniques, malicious users might attempt to execute SQL statements that could corrupt or destroy the database. Such attacks could involve deleting or altering vital campus information or injecting false data into the system. For instance, a hacker could manipulate the schedule of campus activities or erase key office hours, disrupting the system's functionality. Therefore, strong security measures must be enforced to prevent these types of vulnerabilities.