

GIT Department of Computer Engineering
CSE 222/505 - Spring 2020
Project 1.Assignment Report
Group-14

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Problem Definition

Every university requires a platform to give out information to the students and the ones who want to learn more about the school. However, the way that the university informs should be extensive. Meaning, creating respective platforms for each topic would surely make the process of reaching the information longer and exhausting. For this exact reason, we created a system to make interaction and information transfer between students and professors easier.

The system is going to have multiple user entries. The operations that can be done are limited depending on that user type. Only Administrators have the authority to add/remove users. The people that made an application for the system are going to be examined in detail, if the result shows that they have no involvement with the university then they are not going to be enrolled in the system thus the security problem is going to be solved.

Nutrition is one of the basic needs of every living being. Considering the students spending time at school throughout the day, eating is going to be inevitable. For this requirement, the students have no option other than the dining hall and the canteen. Putting the menus of the said eating centers to the system is going to allow students to make a decision beforehand and save time for themselves.

Our school has a large and merged-with-nature campus. This lovely campus also plays the role of a warm home for animals. However, every good thing brings some hardships with it. There is going to be a map of the campus for the freshmen and guests to find their way to their destination and also for the drivers to understand the one-way roads. To make transportation even easier from the campus, there is going to be a timetable for services and busses on the system.

We are planning to put events like seminars, meetings, and concerts systematically on this platform. For example, a professor is going to be able to arrange a seminar and the involved student are going to be informed about the event.

The forums are going to let some topics can be protected from being lost within personal messages and can be heard from every interested student. Creating lecture groups are going to let students transfer information for that respective lecture. Hospitable students that are willing to share their houses with other students those in need which is going to increase the socialness within the campus.

Our school is located at the boundary line between Gebze and Istanbul which makes it hard to reach from both of the centers. This means almost every student endure long trips to arrive at the campus. For these kinds of reasons, those who own a vehicle can post on the forum or send personal messages to inform other students where he was headed. Thus, one of them gains a companion and the other arrives at his/her destination quicker.

We intend to create a platform that would make various types of information about our school swiftly accessible and we believe that it is going to be beneficial for everybody.

Users of the System

- Students
- Teachers
- Guests
- Admin

System Requirements

Functional Requirements

- The program will be used by students, teachers, administrators and guests. It must support a multi-user interface. Students, teachers and administrators will enter the system by using their usernames and passwords. Guests will be able to use the program without registering the system.
- Administrators will be able to add/remove students and teachers to the system, also they have authority over posts.
- Students can create new posts. Posts will be supported by tagging system to make searching faster. Some tags will be specific to user, for example; only teachers can post their messages with a “teacher” tag, and student group moderators will create posts with another tag. Other users can mark tags as favorites to follow them.
- Guests can check campus map, food list and they can join seminars.
- Users can send private messages to each other. All messages will be stored in the server side.

Non-Functional Requirements

1 Product requirements

1.1 Usability requirements

The system is user friendly in terms of usability. Users clearly perform their operations by clicking the buttons that are written in English.

1.2 Efficiency requirements

1.2.1 Performance requirements

The system has very little data at first, but as the users use the system, the number of data in the system increases and here, the system needs to increase efficiency by using fast algorithms on top of these data. The system targets this in terms of efficiency.

1.2.2 Space requirements

System will hold users' data on the server side. These data are login information of the users, conversations between users, food list, posts that users created. Since, all

these data tend to be enlarged as the new users register the system, and users make use of the system. Therefore it should be scalable.

1.3 Dependability requirements

Program will use a map to navigate users to their desired destination. In order to use this functionality, it will depend on some third-party map and navigation data.

1.4 Security requirements

System must be able to store users' passwords encrypted. Posts will be edited only by its creators and administrators.

2 Organizational requirements

2.1 Environmental requirements

The interface works only visual and tactile on the computer, so the environment in which the interface is operated will not limit the users normal detection capabilities.

2.2 Operational requirements

Interaction of users and users is required for each method of the system to work. After all, one of the objectives of this system is to provide communication between users who use the system. It needs the operations it performs for this goal.

2.3 Development requirements

Since the program will be developed by multiple developers, the development environment must enable developers to work together seamlessly.

3 External requirements

3.1 Regulatory requirements

System users have certain powers granted by the system. While these powers are given by the system, the system pays attention to giving it in a way that does not disturb its order and controls them.

3.2 Ethical requirements

Administrators will handle inappropriate posts, and its users. Administrators can warn users and ban them if necessary.

3.3 Legislative requirements

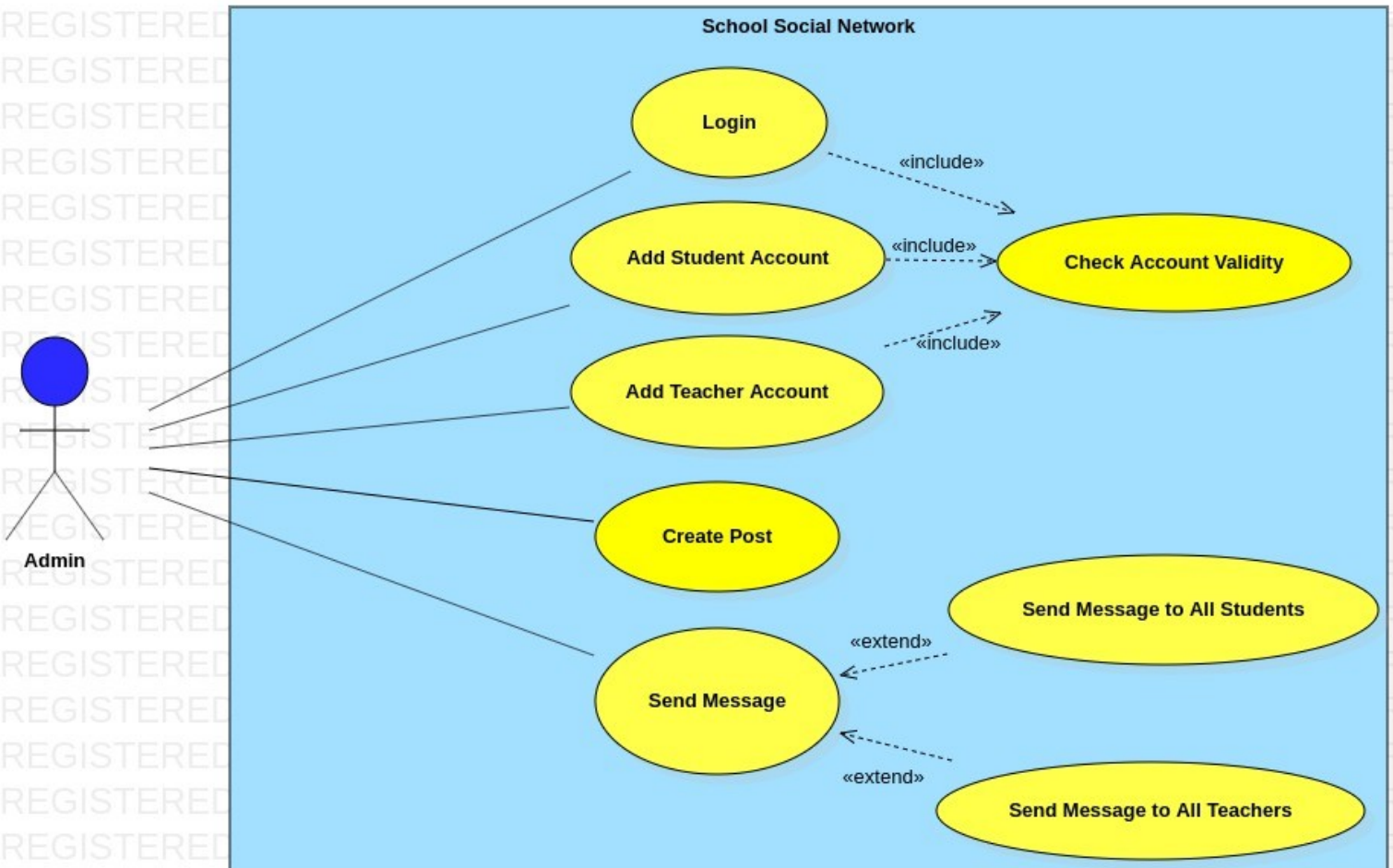
3.3.1 Accounting requirements

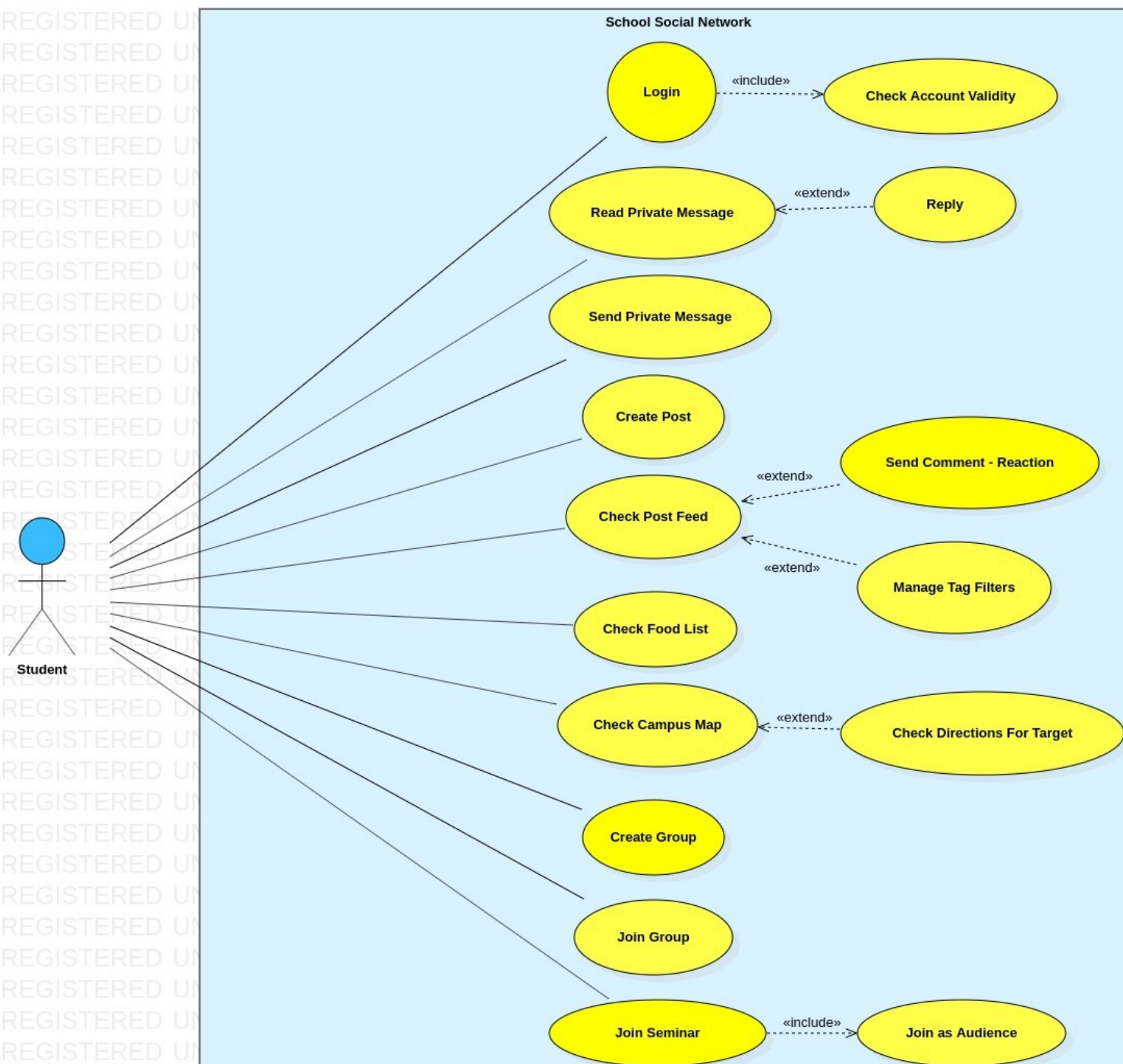
The system must have at least one administrator. Administrators can approve students and teachers who are members of the system. Approved students and teachers cannot perform operations restricted by their membership (by the system). A few features of the system can be used without the need of membership with guest login.

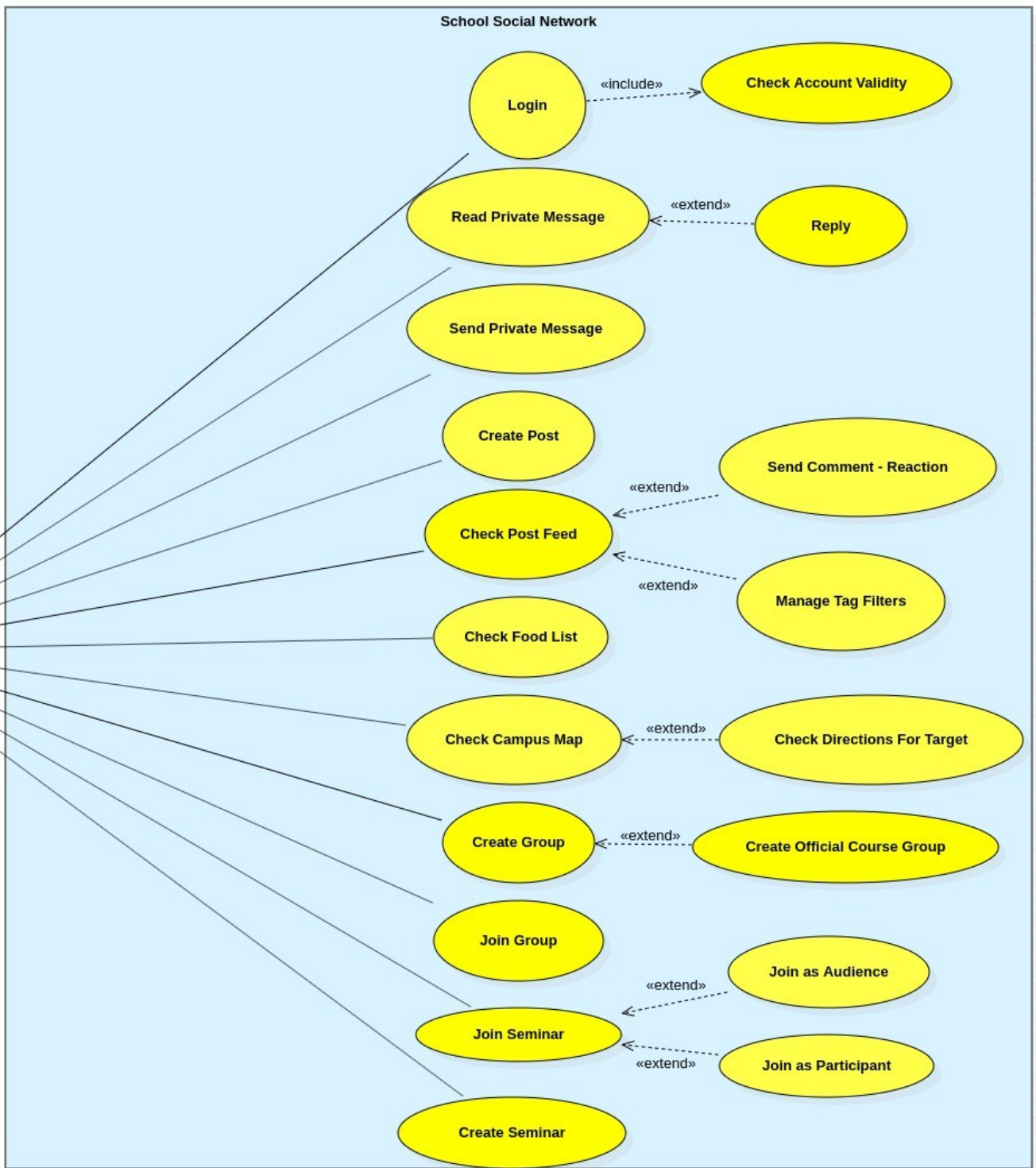
3.3.2 Safety/security requirements

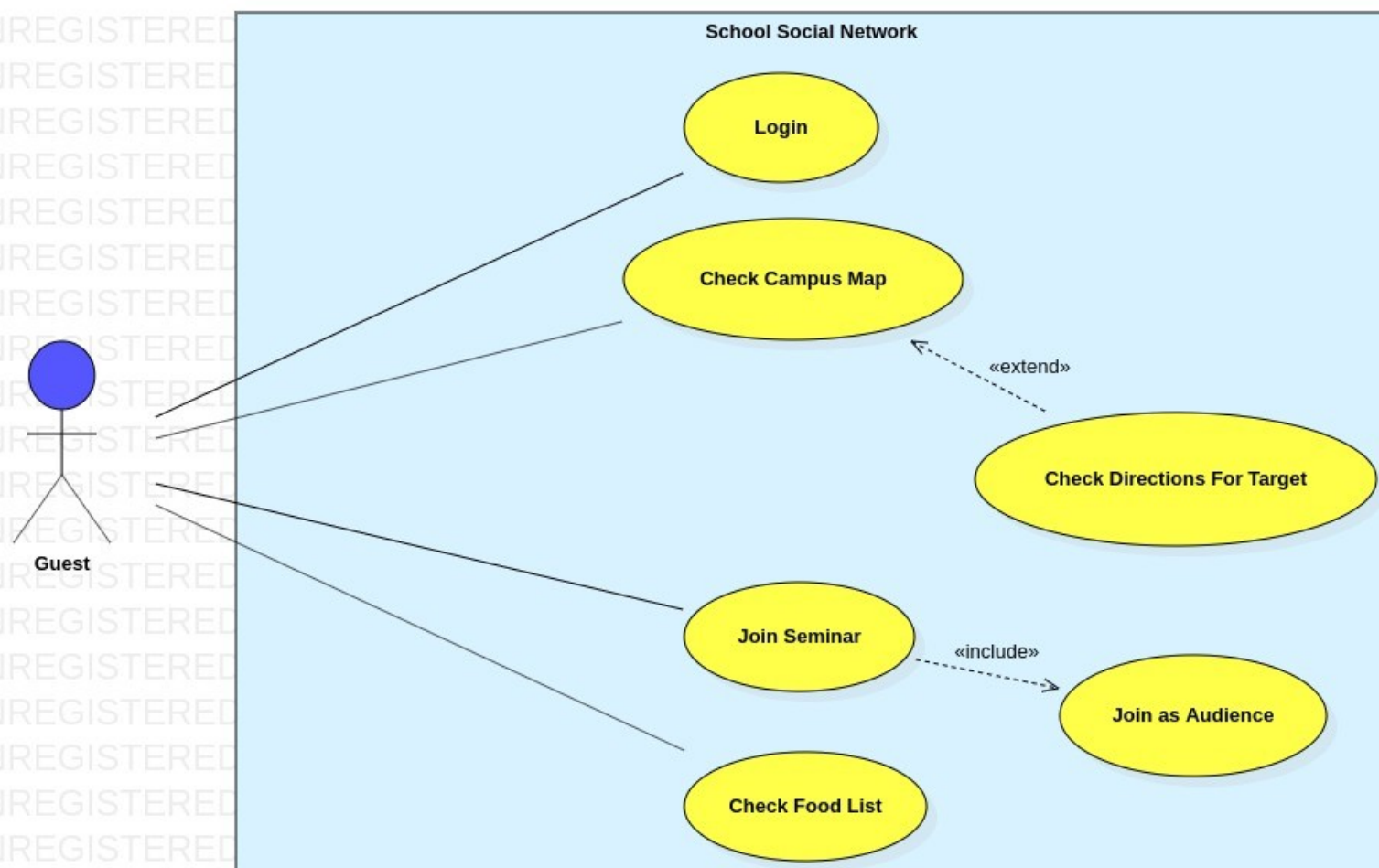
In some parts of the system, the interaction of users with each other is very much in the foreground. This also has insecurities, for example, malicious users can abuse this system. For this situation, there are measures that the system should take.

Use Case Diagrams



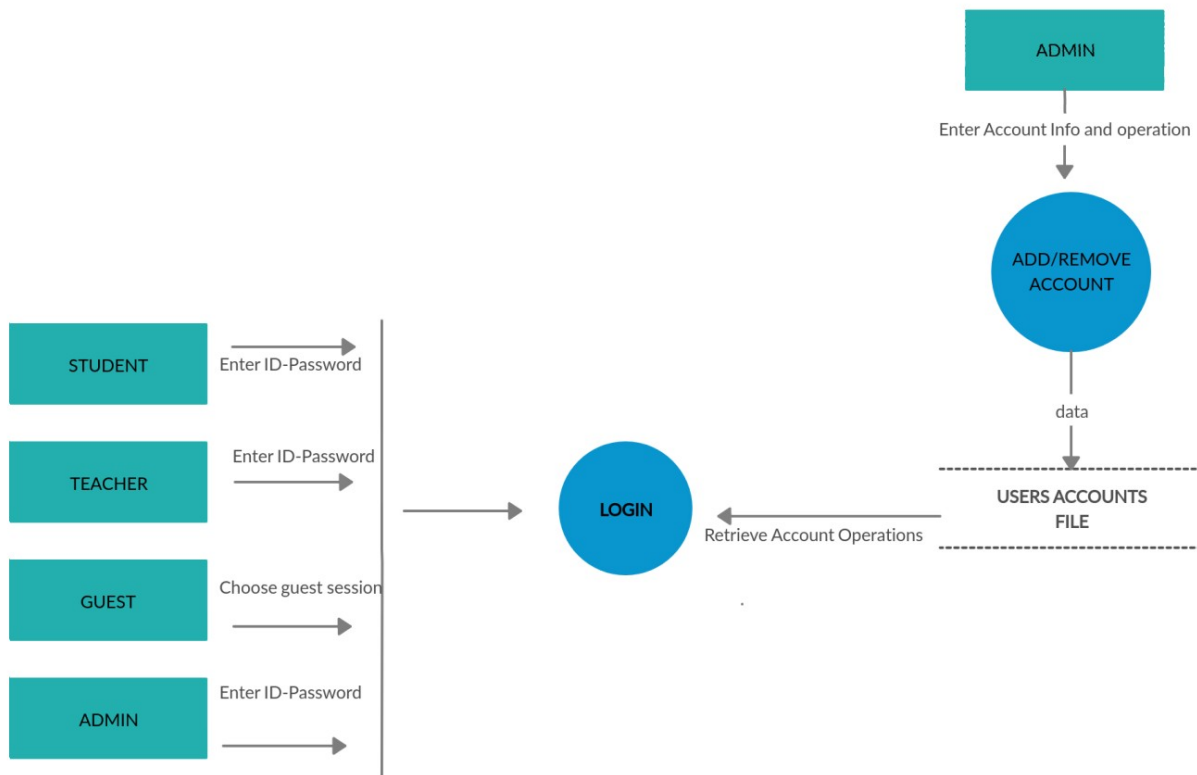




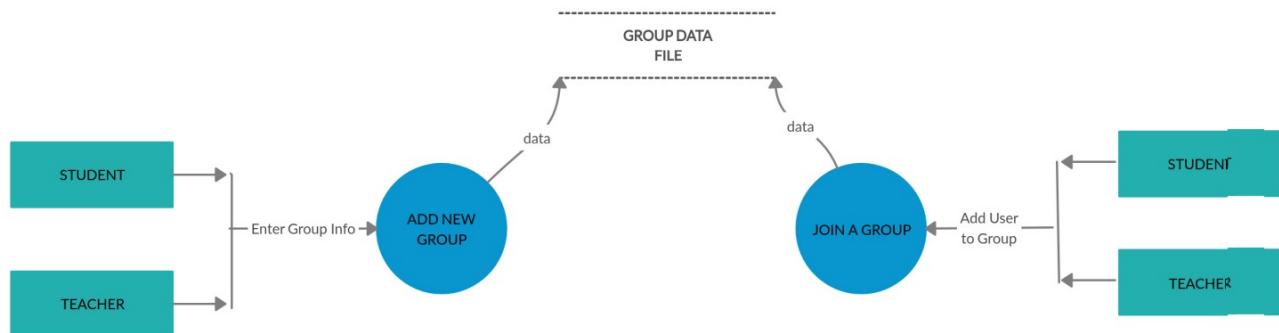


Module Diagrams

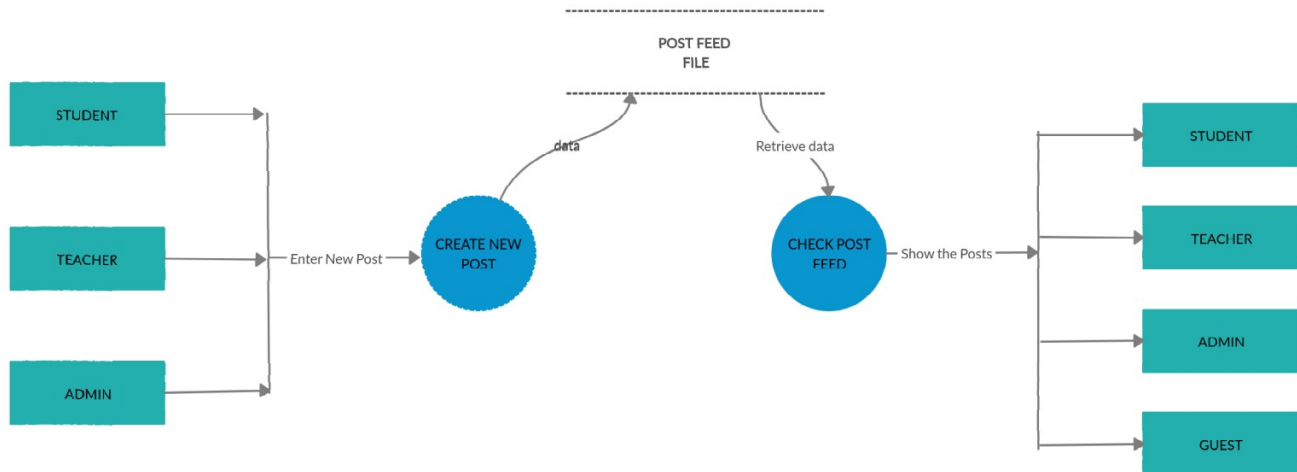
1.LOGIN



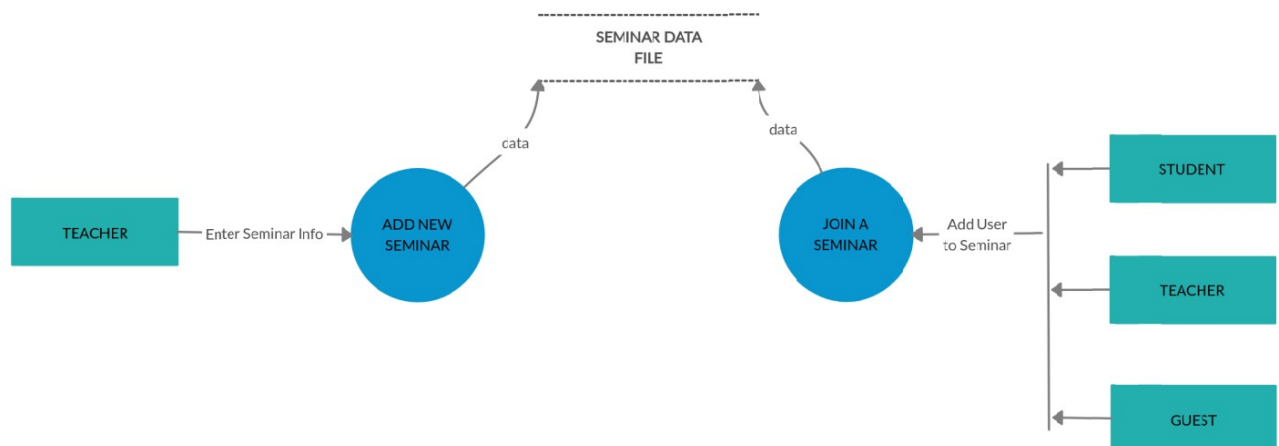
2.CREATE/JOIN GROUP



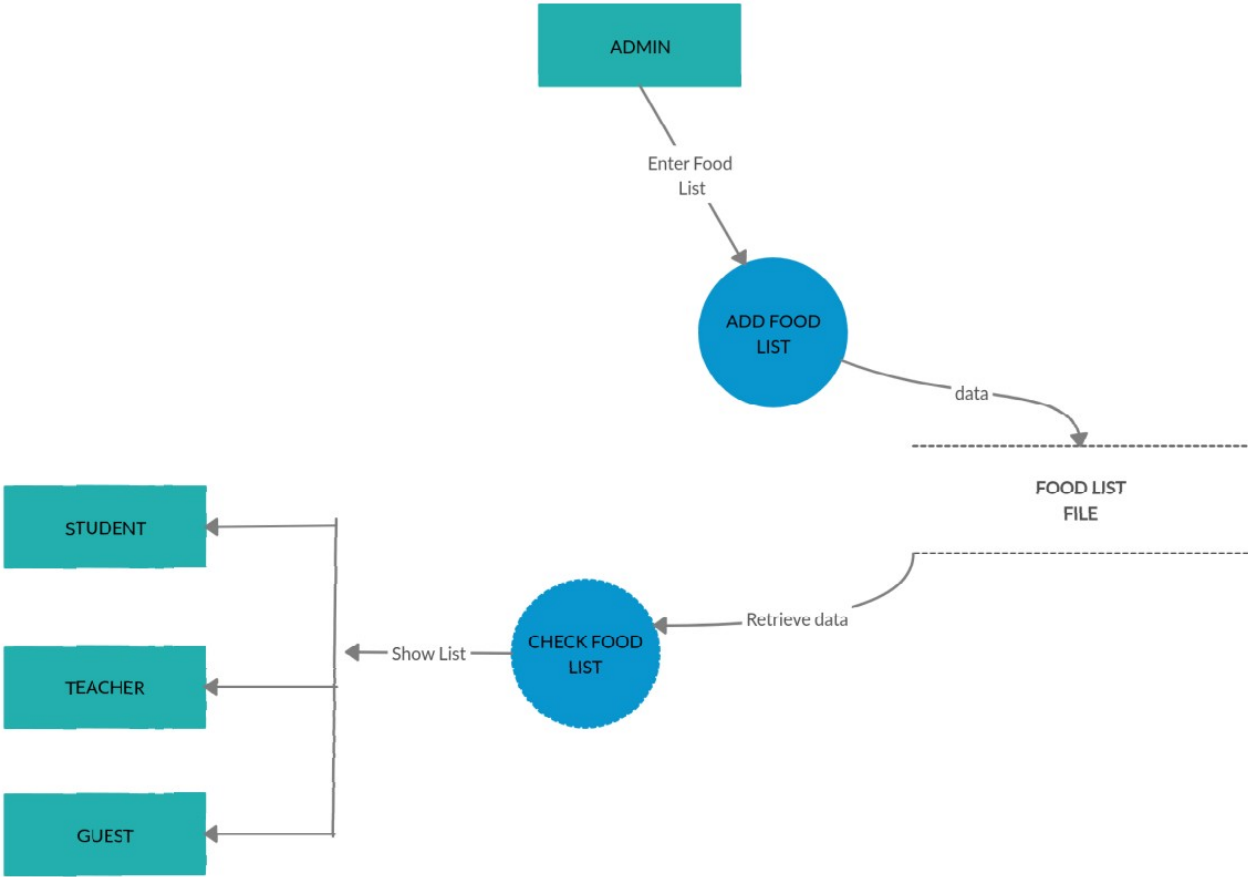
3.POST FEED ACTIONS



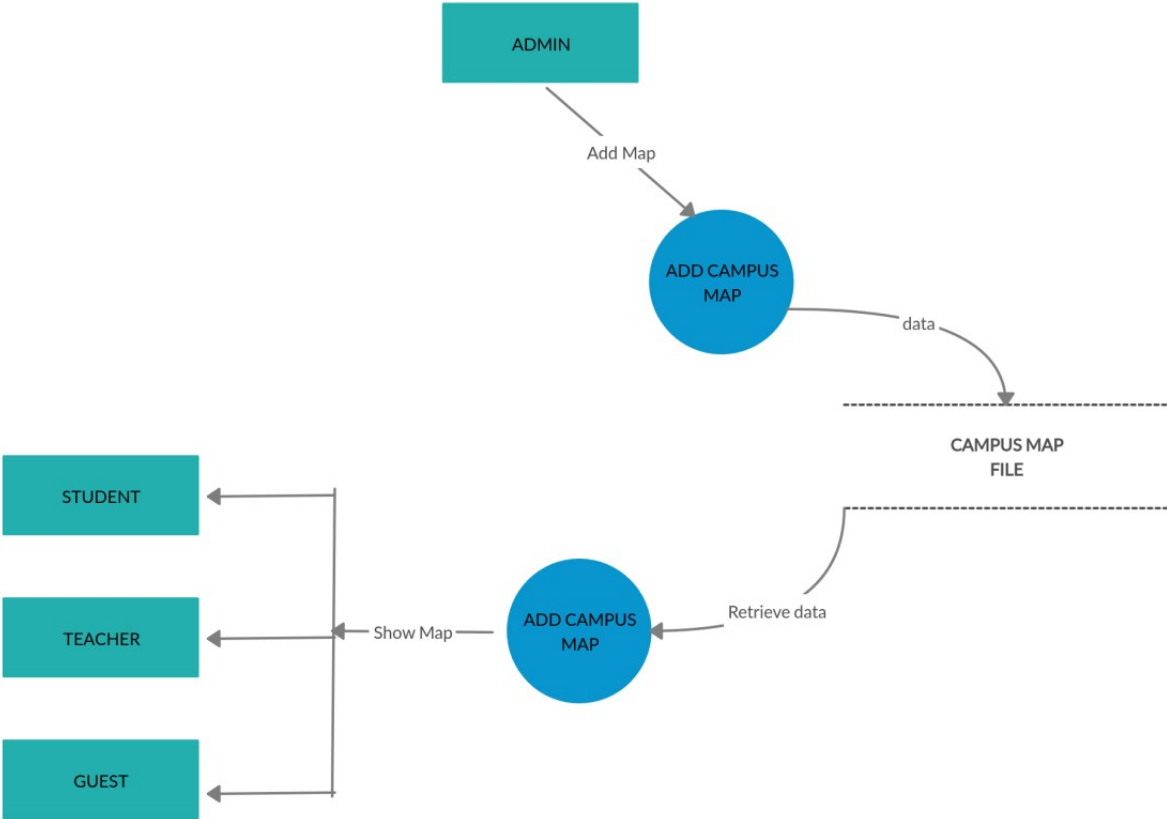
4.SEMINAR ACTIONS



5.FOOD LIST ACTIONS



6.CAMPUS MAP



7.MESSAGE ACTIONS

