



ASSIGNMENT II

ITW202 Mobile Application

Submitted by:
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1. Introduction

Purpose:

The main purpose of my project is to develop a platform where the students, staffs of GCIT can easily do the payment of their bills in canteen. The application will help the user to properly do all the calculations without malfunctions. The application will also be convenient and user-friendly so that everyone can use the application. The potential human error could also be reduced and the way of visiting canteen will be different and digital.

Scope: The scope of this project is limited within the Gyalposhing College canteen where it will help the customer (students and faculties) to calculate the total amount efficiently.

2. Functional Requirements

- Digitized Calculation: The application will calculate the total amount just by clicking on which item the user has purchased and quantity.
- Error-free calculation: All the calculation will be error-free.
- Proper database for the canteen owner who can update, add and delete the items.
- The Canteen owner can add any new information on the application.
- Search: Student as well as the canteen owner can search the item based on the name of the item or the category.

3. Non-Functional Requirements

- Usability – The canteen calculator will be build in a user-friendly way so that no students or the canteen owner will face difficulty in understanding the working of the app.
- Support-ability -This app can be installed and run on any android smartphones. The size of the smartphones will not affect the performance of the application.

- Reliability- The canteen calculator app will be very fast in calculating the amount so that people don't have to wait to pay the amount.

4. Software Requirement

Some of the software and requirement that will be used for building this application are:

- 1. Android studio version 4.1.2 and above.
- 2. Java version: Java SE jdk 8 and above.
- 3. Android SDK-25 and above.
- 4. Operating System can be Window or Ubuntu.
- 5. MySQL: For the development of this application I will be using MySQL which is an open-source relational database management system.
- 6. Flask : I will be using the flask which is a micro web frame work. This frame work lighter than the django so it will not be complicated to work with.

5. Hardware Requirement

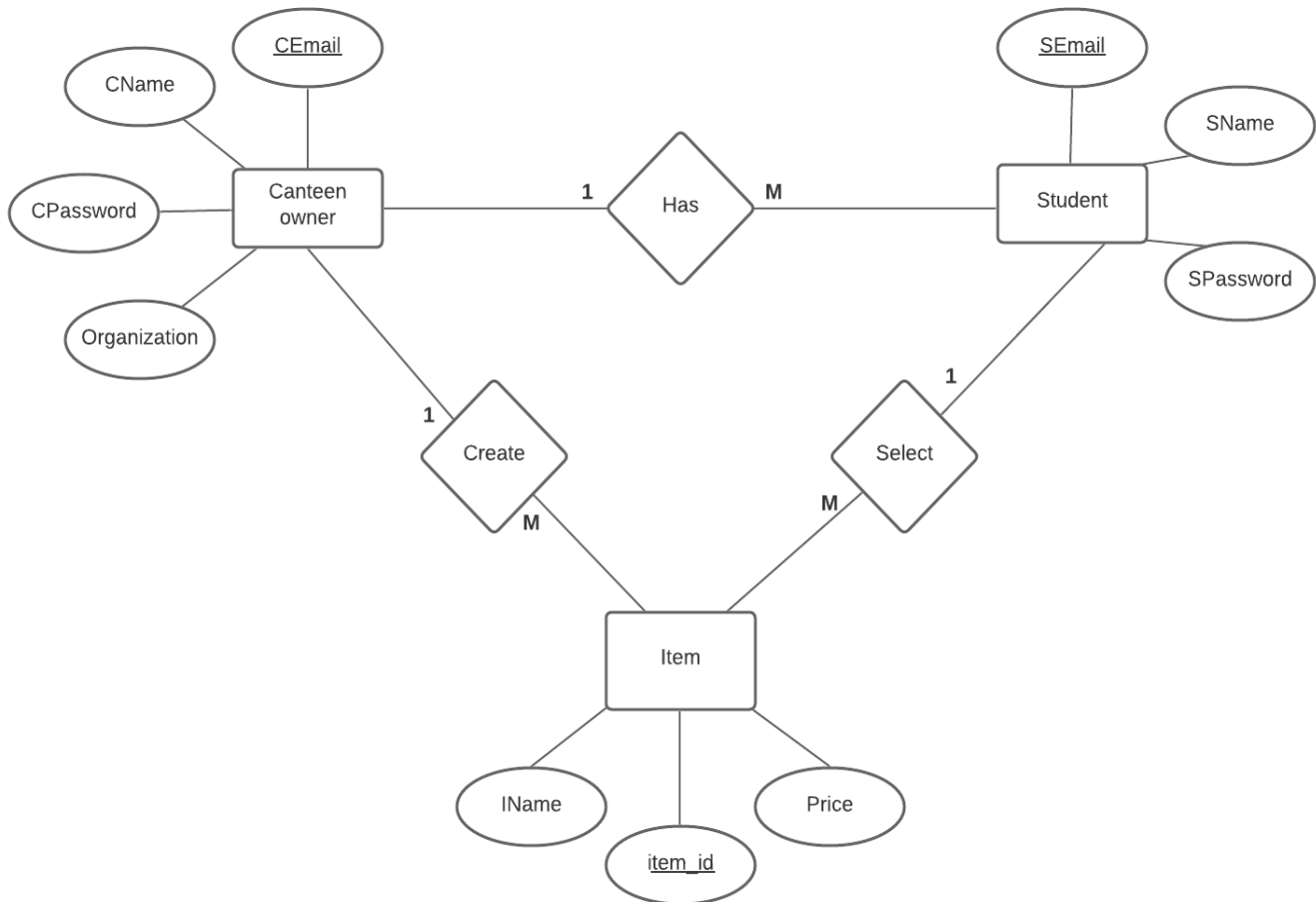
User Requirements

- Only device with android versions 6.0 and above is supported
- Minimum of 2GB RAM

Developer Requirements

- Disk space: 200GB
- RAM: 4GB and above
- Processor: Intel Atom® Processor Z2520 1.2 GHz, or faster processor or AMD processors

ER Diagram



Relational Schema

Canteen Owner

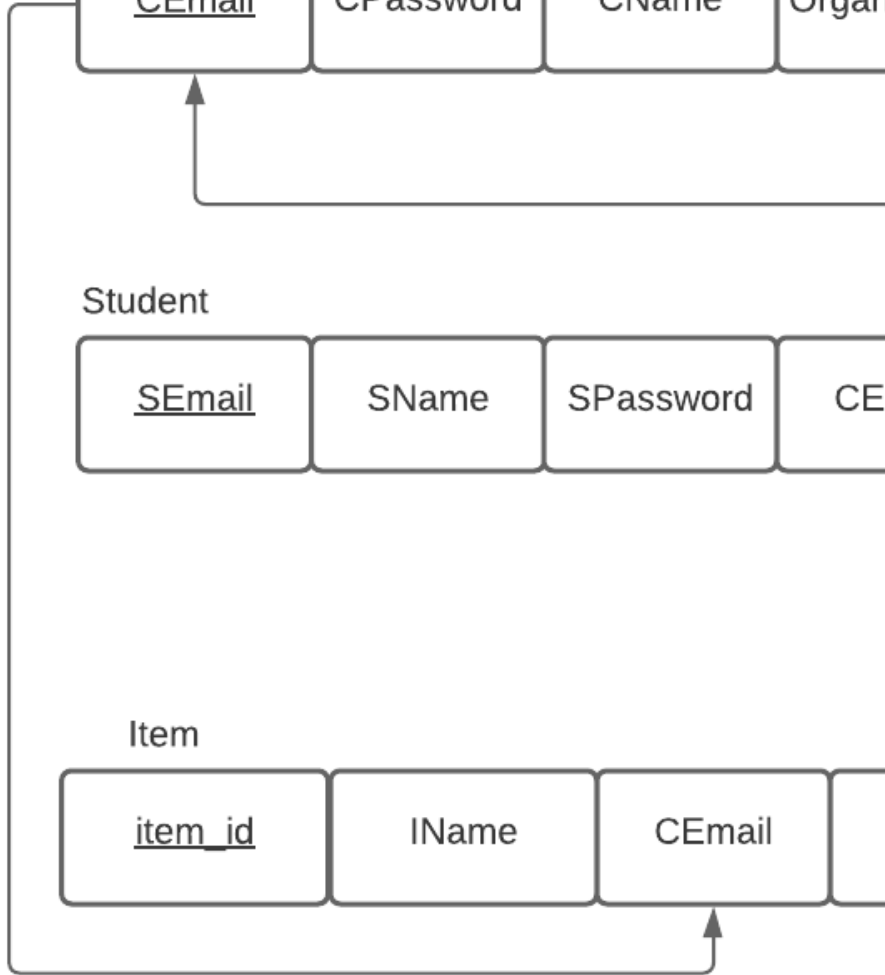
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Student

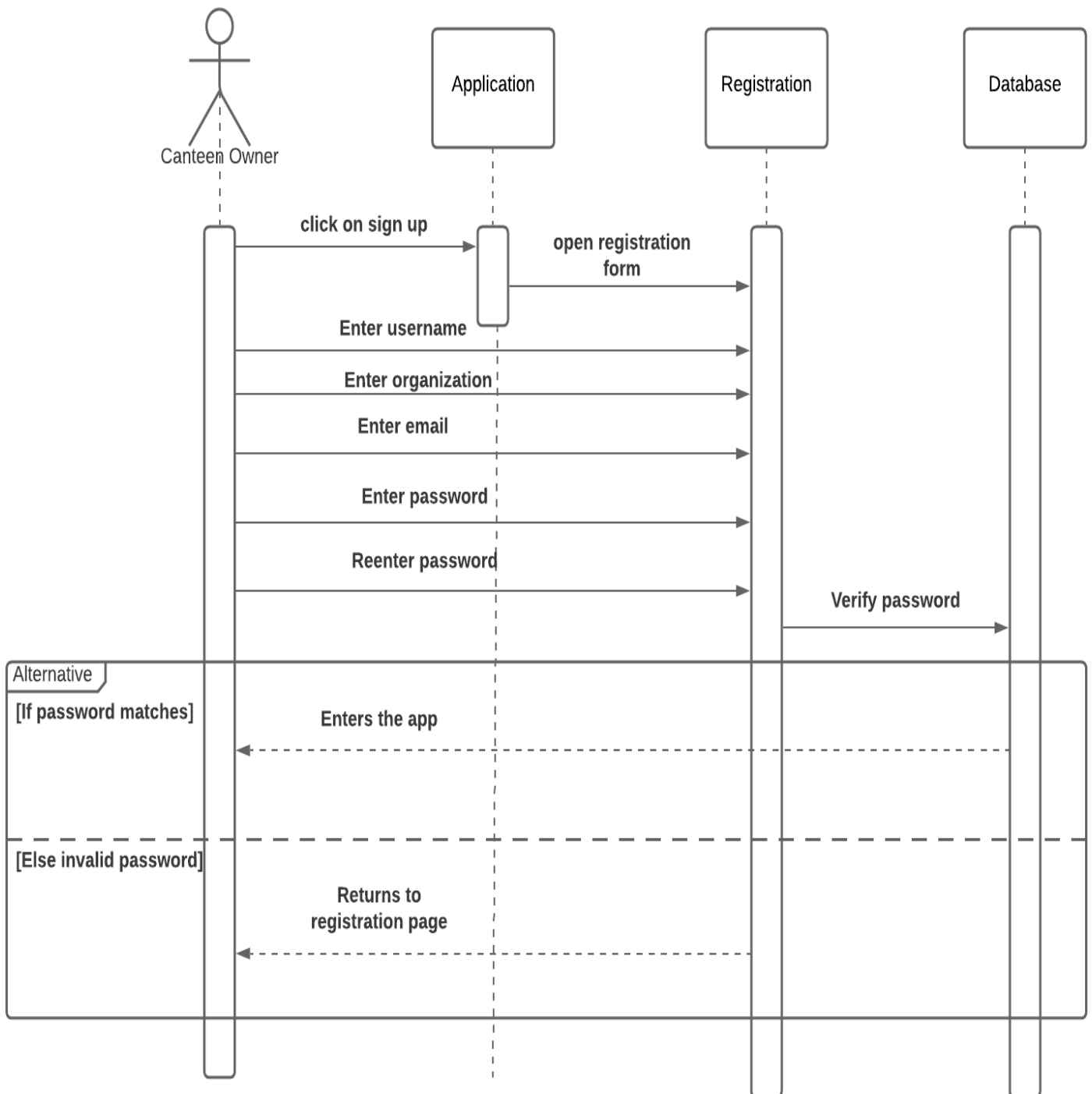
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Item

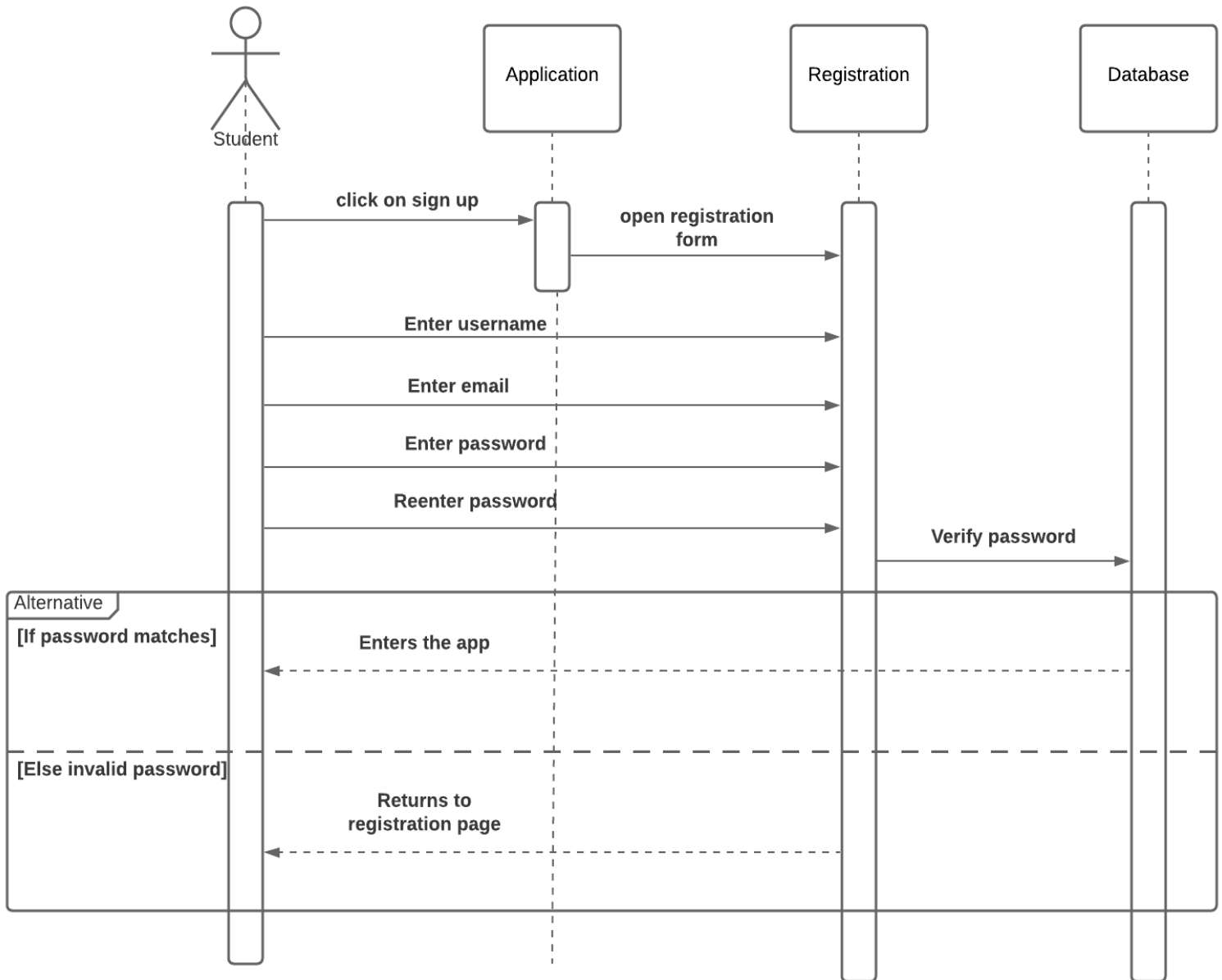
<u>item_id</u>	IName	CEmail	Price
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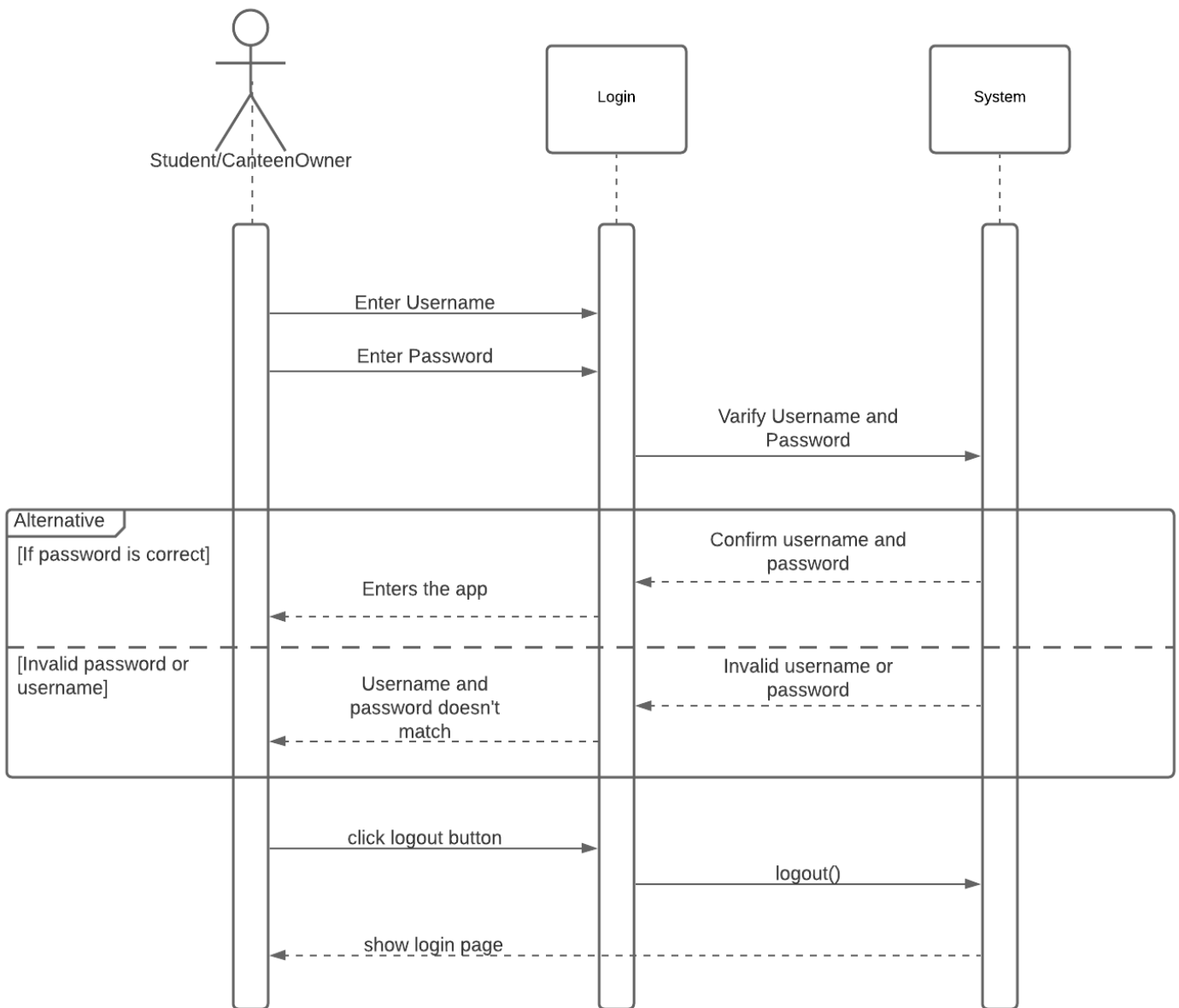
Sequence Diagram(Registration Canteen Owner)



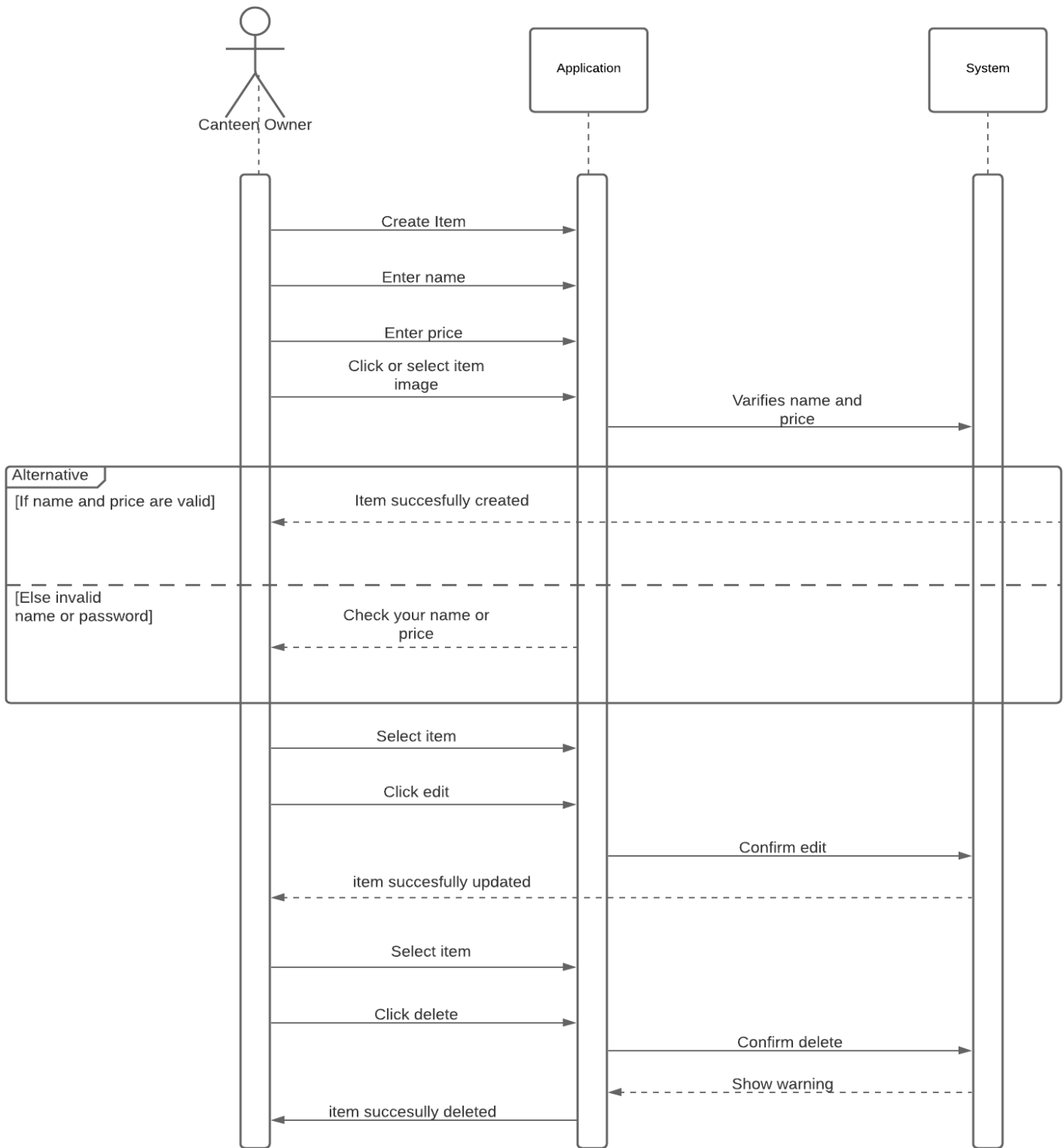
Sequence Diagram(Registration Student)



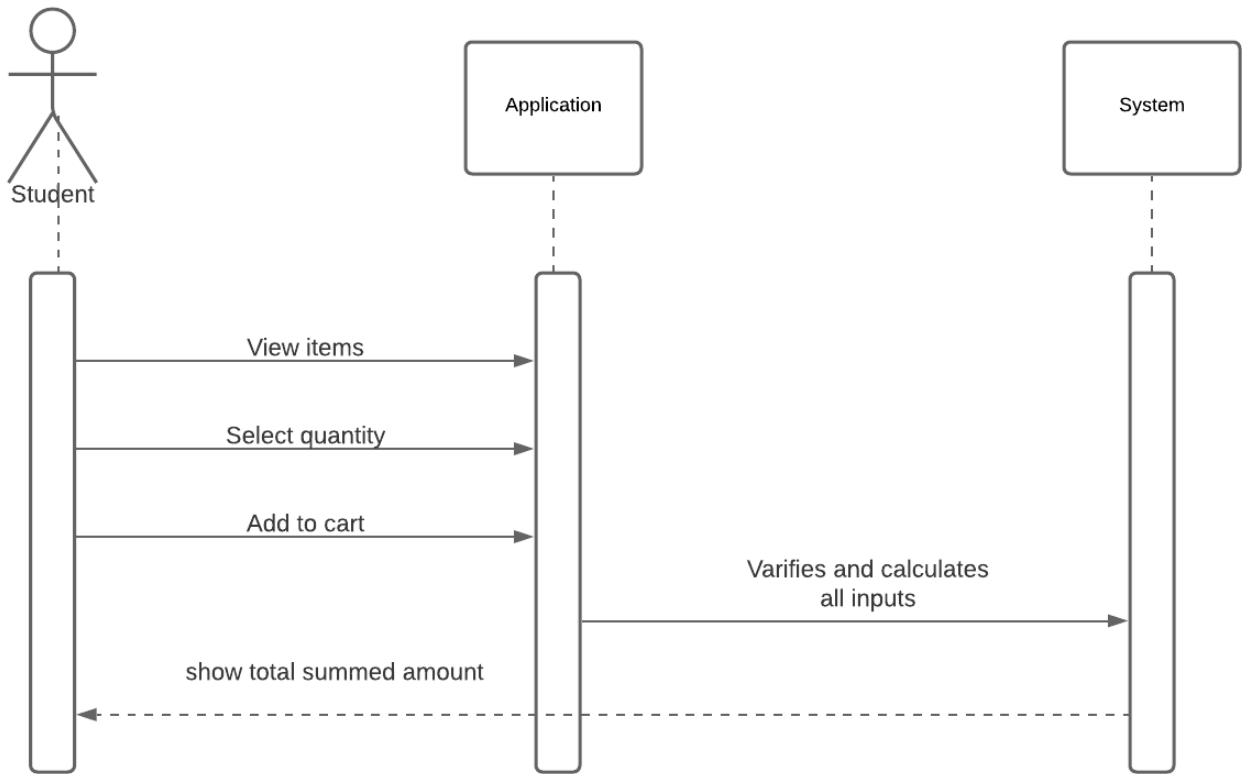
Sequence Diagram(Login and logout)



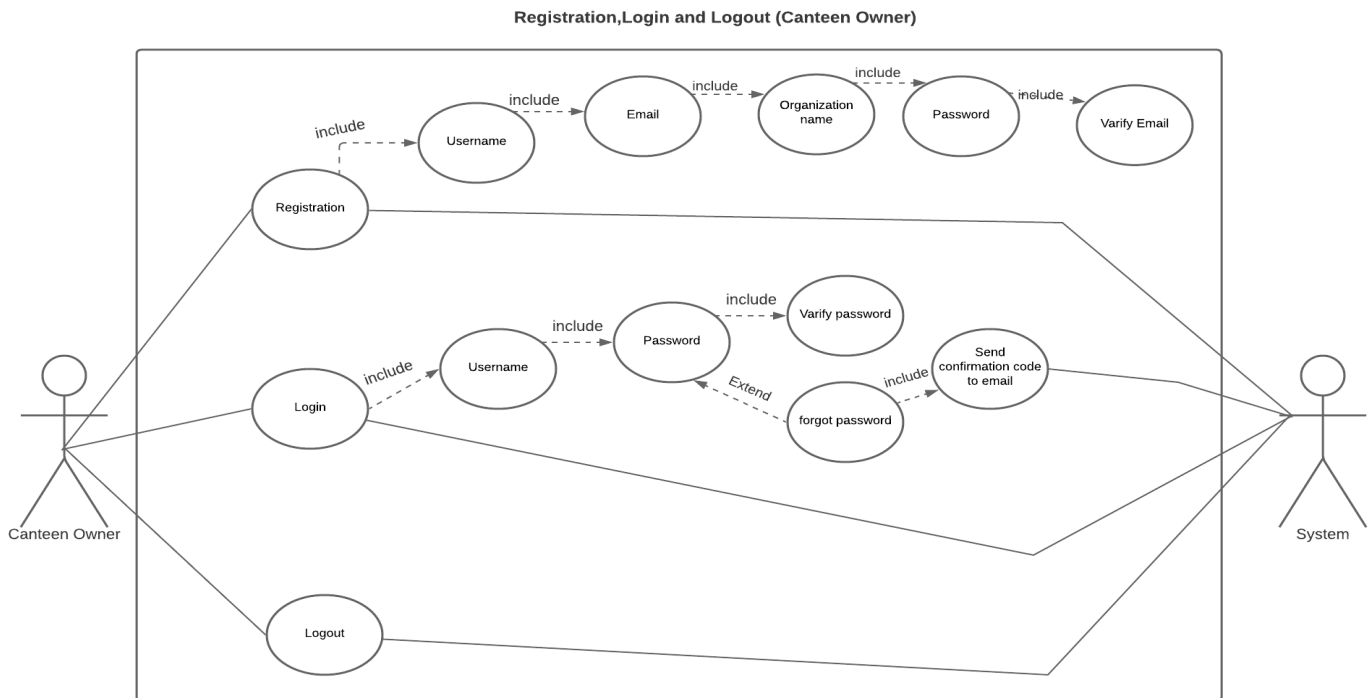
Sequence Diagram(Canteen Owner)



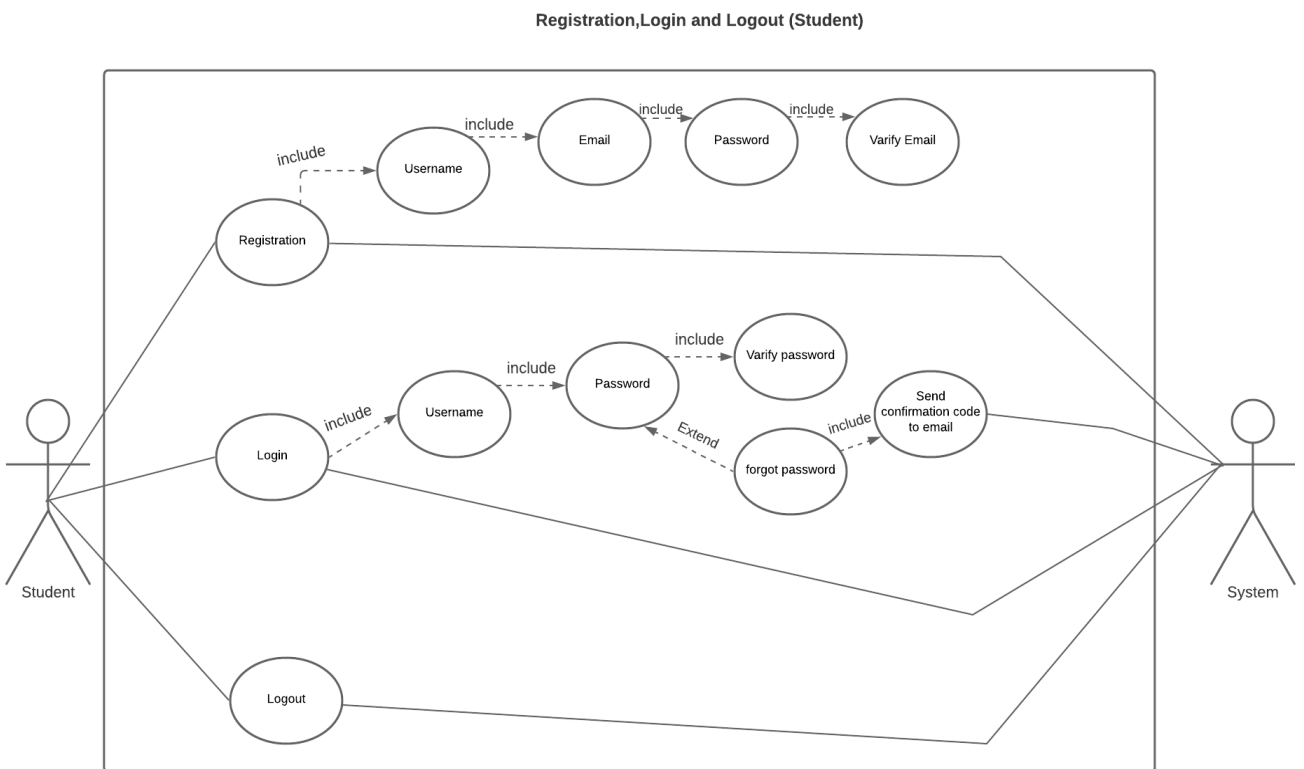
Sequence Diagram(Student)



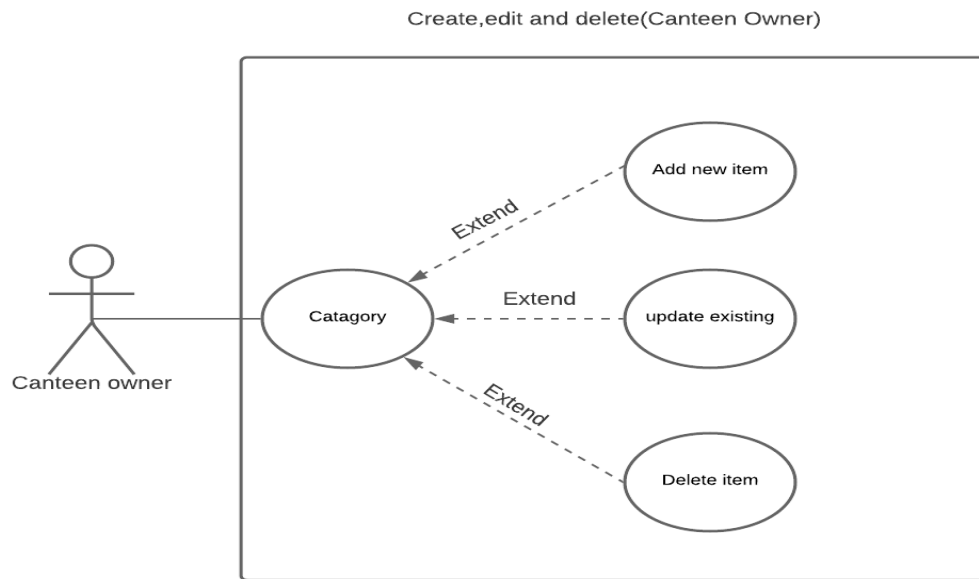
Use Case (Registration,Login & Logout(Canteen Owner))



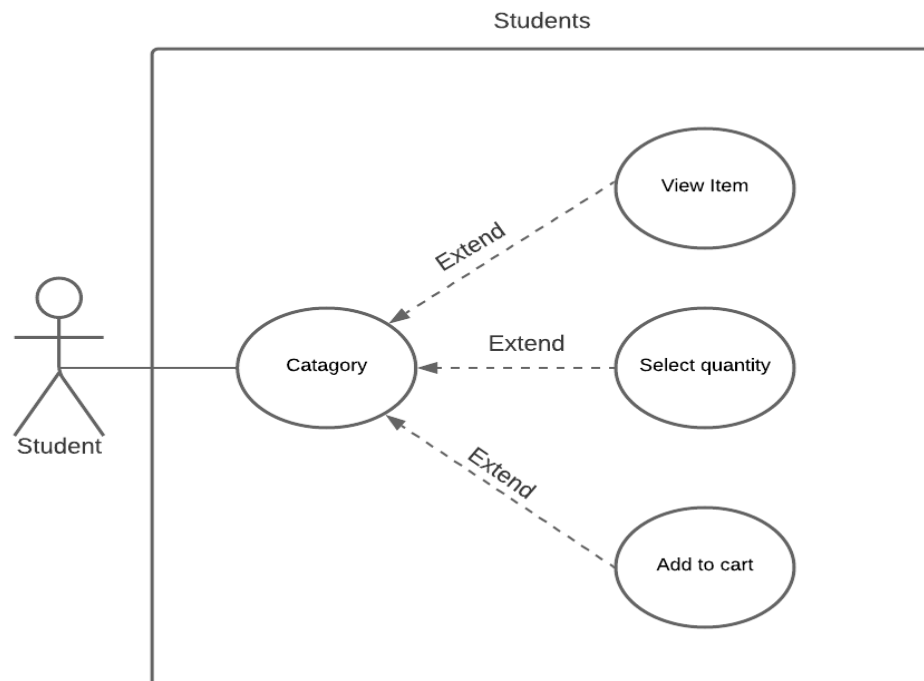
Use Case (Registration,Login & Logout(Student))



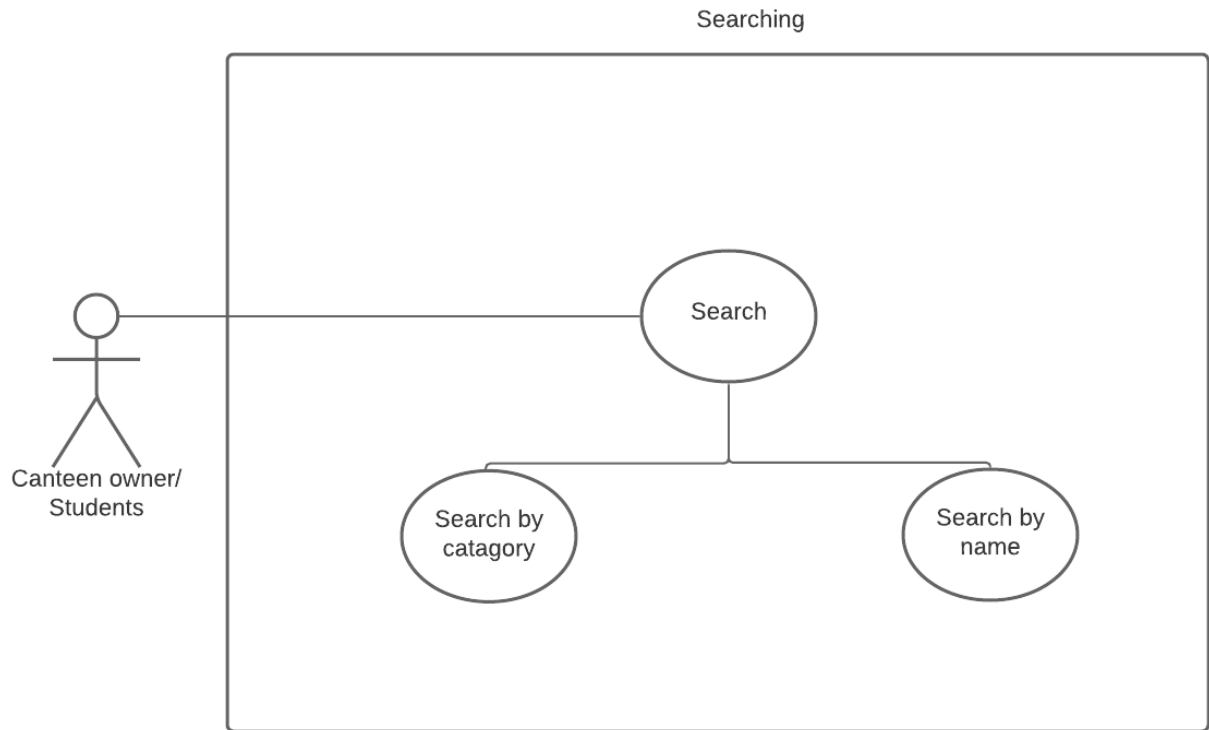
Use Case (Create,edit and delete(Canteen Owner))



Use Case (Students)



Use Case (Search)



THANK YOU