



American International University-Bangladesh (AIUB)

Department of Computer Science and Engineering

Faculty of Science & Technology (FST)

Fall 20-21

CSC 00191- Object Oriented Analysis And Design (OOAD)

Section: J

Project Title: Home Security Management System

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Home Security Management System

Project overview

In a home security management system, a home owner can setup surveillance devices by creating an account. If he/she forgets the password, one receives password from the system administrator via email or phone. Owner either activates or deactivate the sensors and cameras after logging in to the system. Sensors gather data and home owners can view monitoring zone with the help of the cameras. System administrator reconfigure sensors and related system features.

Home owner can pan or zoom selected cameras after viewing the monitoring zone. The selected camera operates to record the current images of selected monitoring zone. Home owner can show the thumbnail for each camera and replay camera output but to do that he must select a recorded file.

Components and features:

Home owner – Setup surveillance devices

- Creates an account

- Receive password

- View monitoring zone

- Activates/Deactivates sensors or cameras

- Record camera output

- View thumbnail for each camera

- Replay camera output

System administrator – Sends password to the owner

- Reconfigure sensors and related system features

Sensors – Gather data

Cameras – Help owners to view the monitoring zone

- Record output

- Show thumbnail

Users:

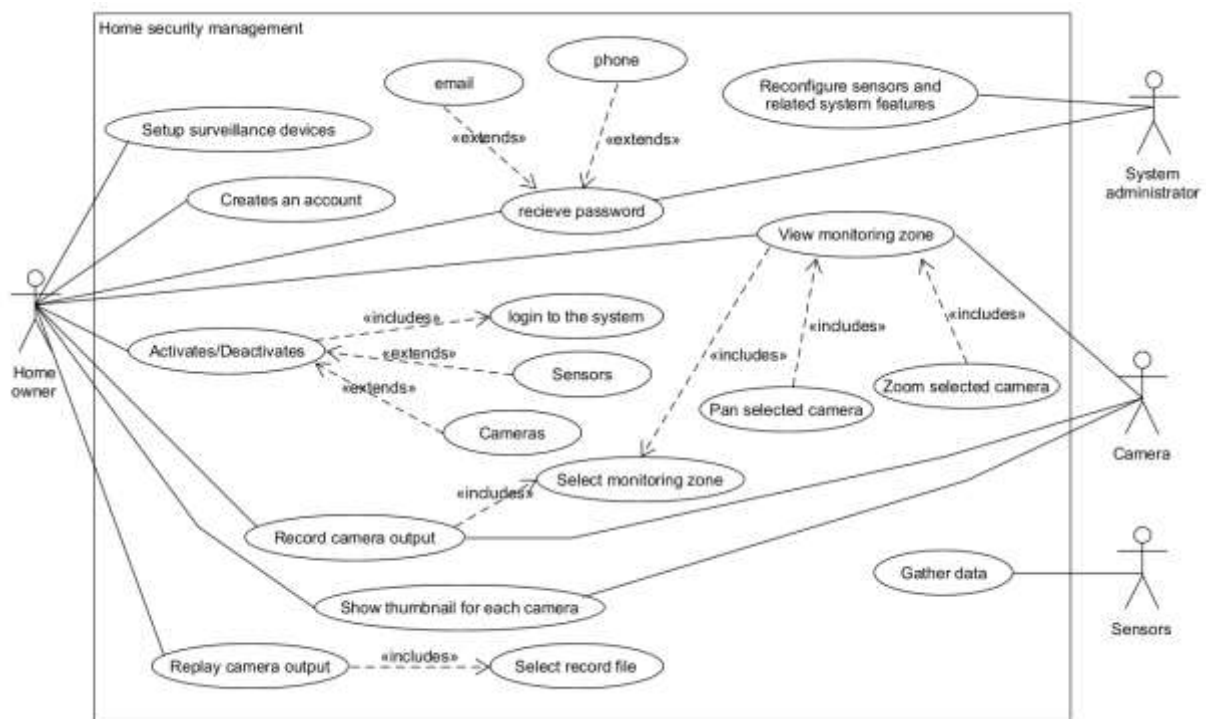
Home owners

System administrators

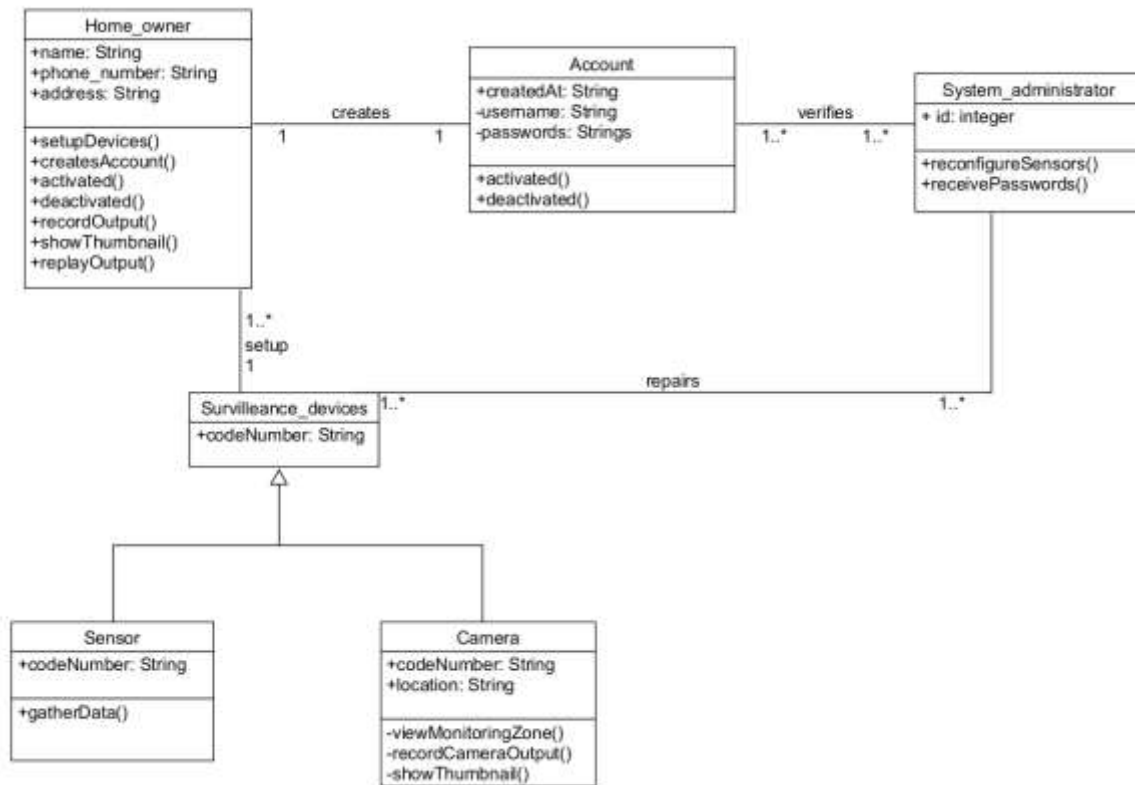
Justification

Home protection and family safety are the primary purposes of a home security system. This project provides a chance for the house owners to keep their house safe from the security threats. The owner can setup their own surveillance devices. Owners requires to create an account. The system administrator provides password via phone or email to the owner if he/she forgets the password. Having pan and zoom selected cameras, owners observe a broad and more detailed surveillance zone. It is possible to record a view in real-time. The system loads the list of the saved file in the file server from where the owner can select any particular video they want to play. Sensors gather information from which the owner can view information relate to one sensor. This project will allow remote access to home owners, providing a room for peace of mind.

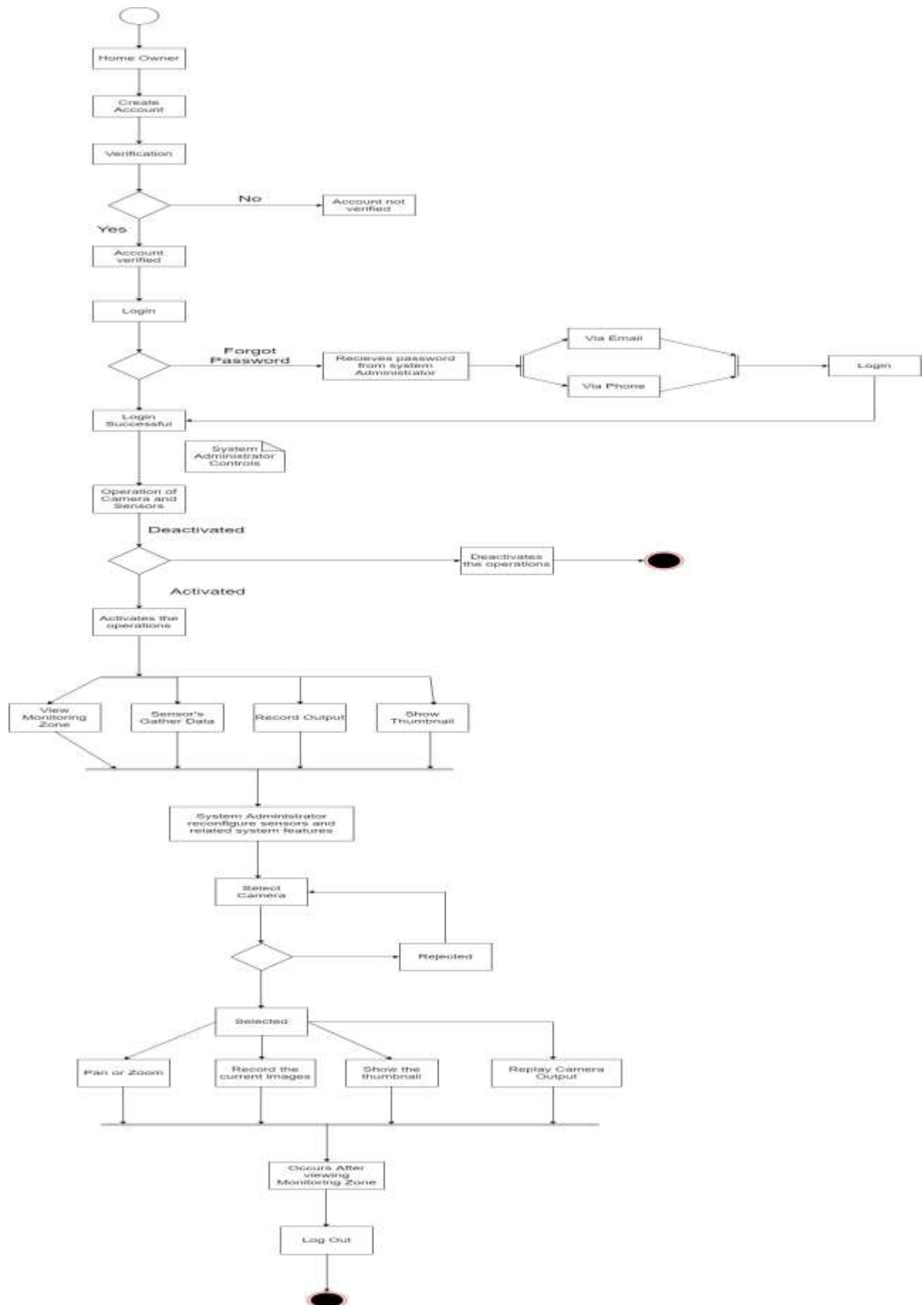
Overall Use Case of the Proposed Project



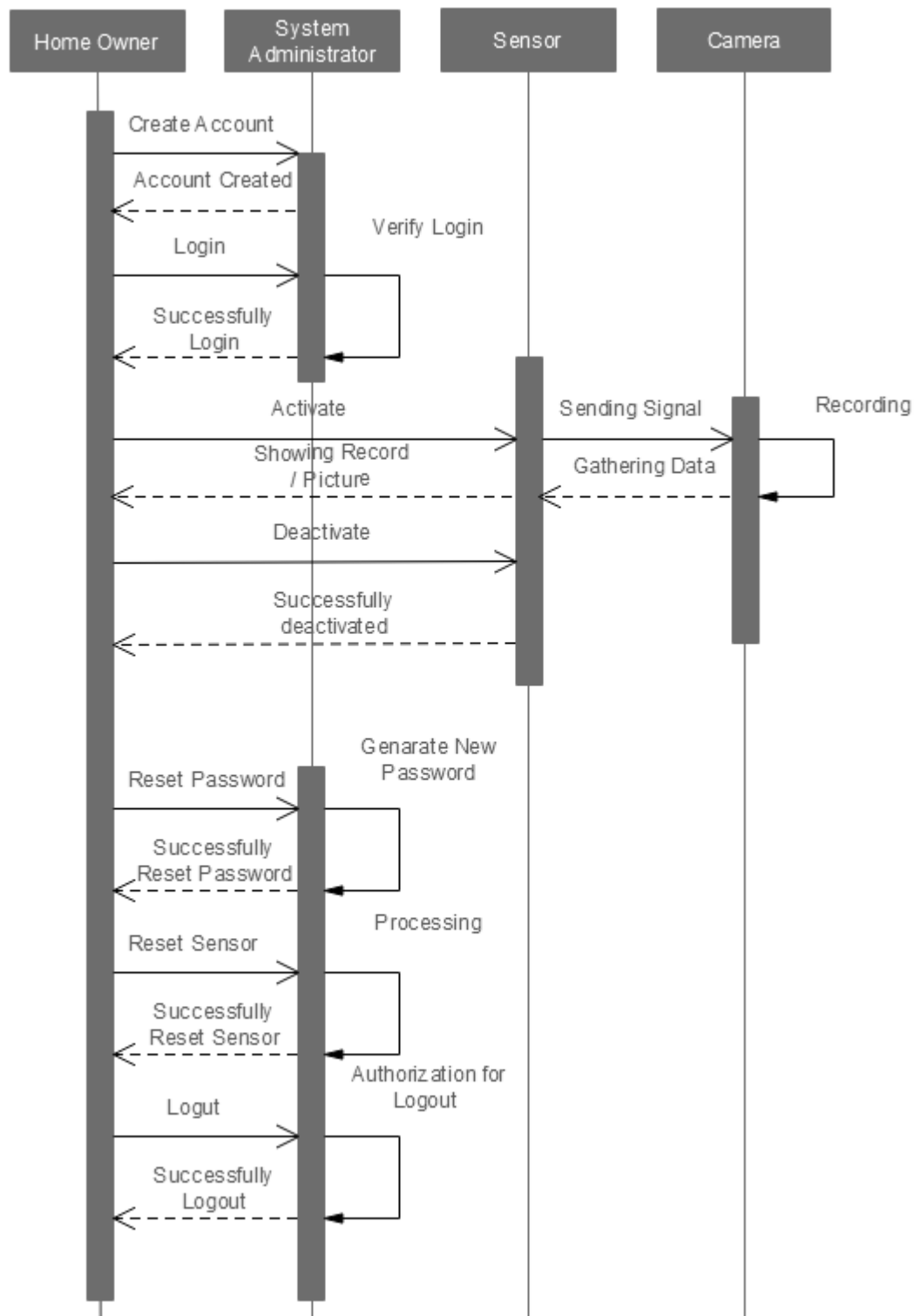
Class diagram:



Activity Diagram:



Sequence Diagram:



Conclusion:

The aim of this project is to make home security system user friendly. If the user accidentally forgets his/her password they can easily re-claim from the system administrator via email or phone number. User can easily tweak the camera settings to his/her preference like zooming in-out, reconfigure sensors, creating thumb-nails for recorded files. Eventually, making this an easy and useful security management system.