BEEJAY
smart security system

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Introduction

Home security has always been a major issue, especially in densely-populated areas. In fact, this year has seen at least a homicide resulting from a burglary gone wrong. When neighbors were called, the burglar ran away through the back window, but not before stabbing the owner of the house. Such case proves even housing complexes that employ security guards still fall prey to burglars. That is why we created BeeJay Smart Security. We provide cheap, thorough, easily installable home security system.

Problem

Security has not become a big concern, so many people ignore it.
Home security are often expensive, requires technician-installation, and heavily relies on CCTV.

Solution

BeeJay, a one for all, end-to-end and simple system that brings you more than just CCTV coverage.

Objectives

- Provides a seamless end-to-end system that comprises of several methods of securing.
- Brings you a cheap, easily installable, thorough, and scalable home security system.
- Offers an app that highlights intuitive navigation, friendly UI, and superior functionality.

Features

- CCTV live feed
- Real-time notification to mobile phone for possible threats
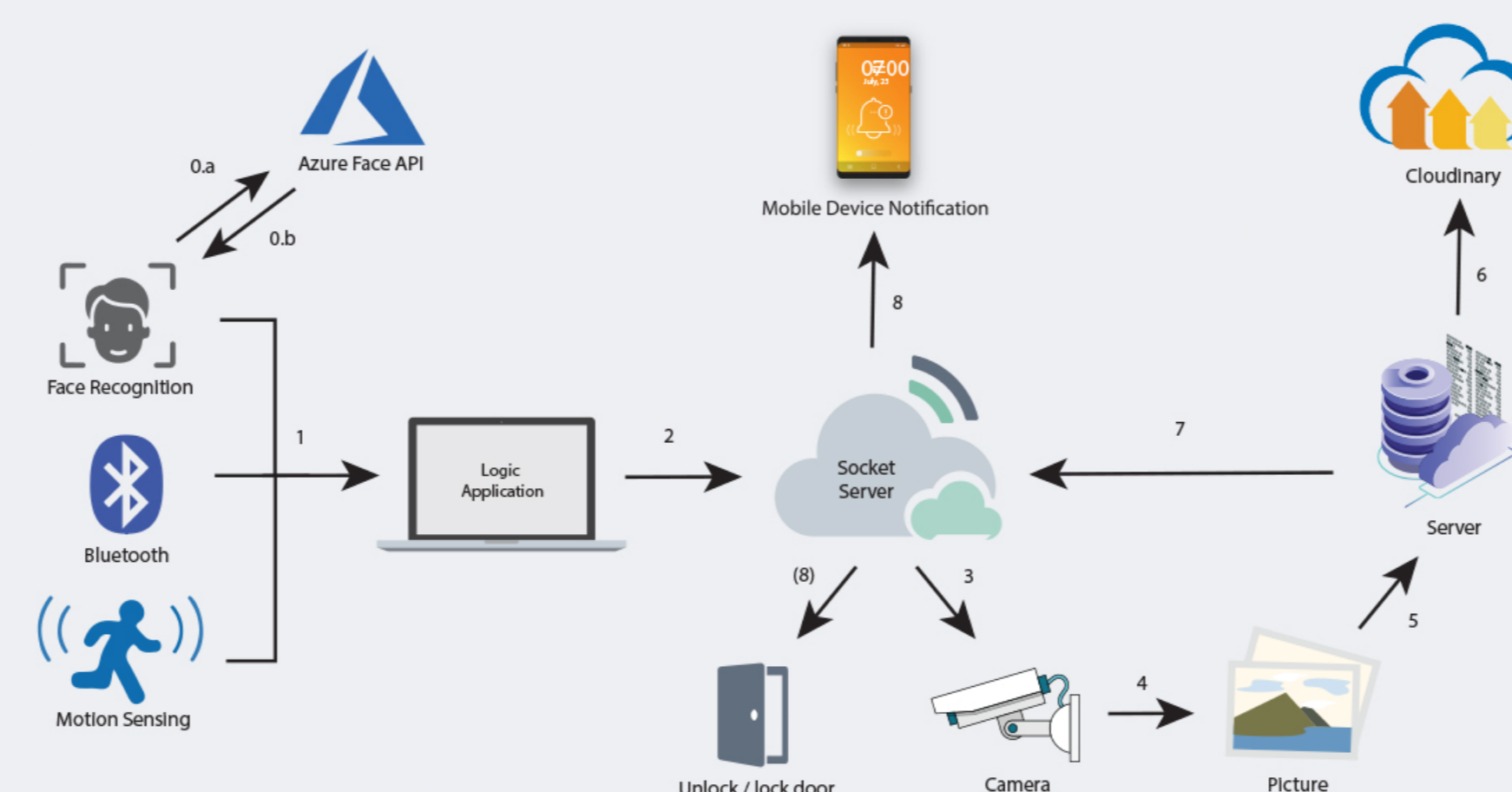- Auto-unlocking door

Bluetooth sensing and face recognition are used to grant access to the front door, which will unlock automatically.
In case of windows securing, if the motion sensor sees some movement and no common Bluetooth sensor is in range, this event will be assumed as a threat.
Any event will trigger CCTV capture and mobile notification.
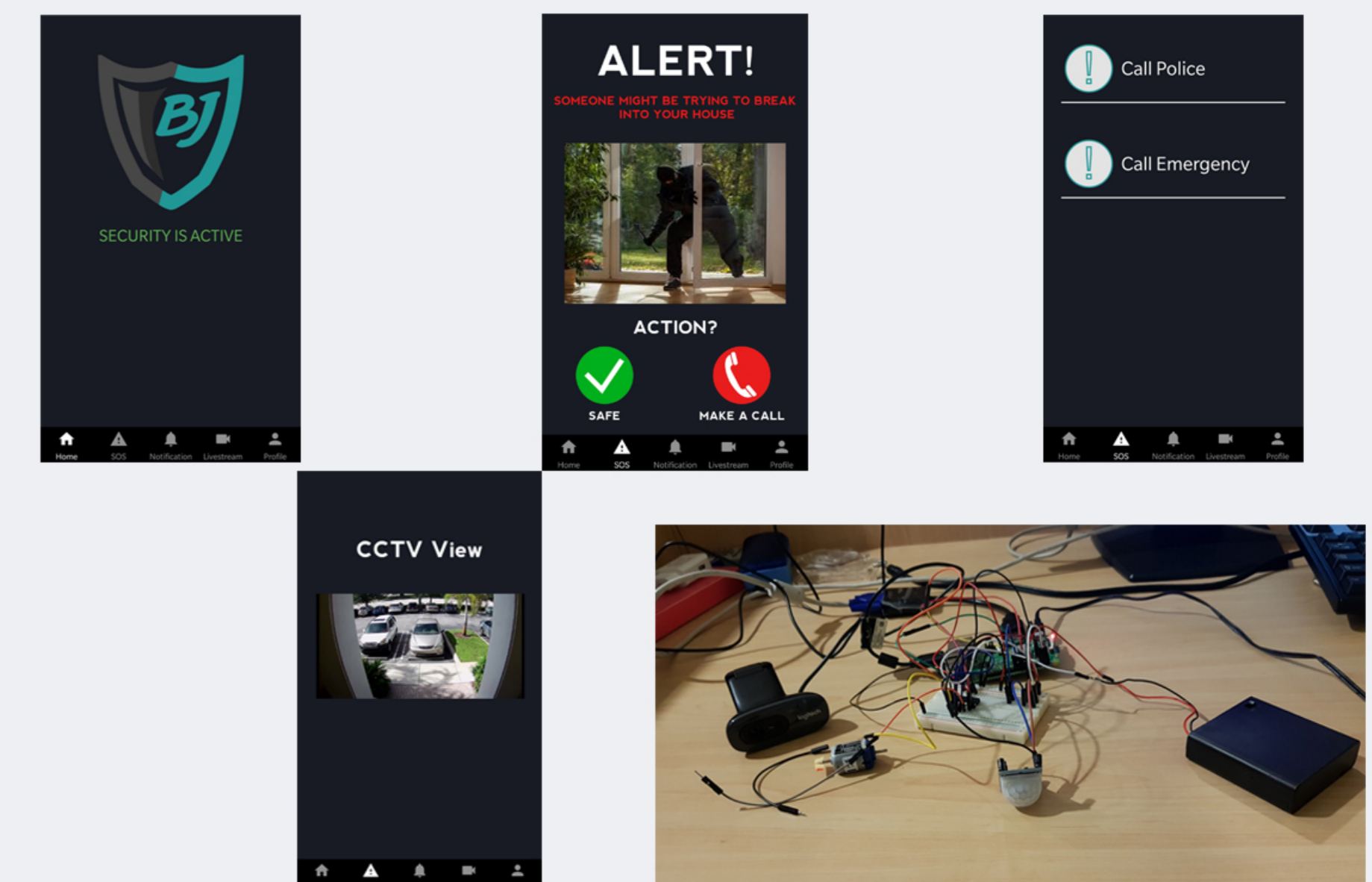Automatically inform the police if no house owner confirms the safety.

Design

Tools used

- Java Spring Boot
- NodeJS, Express
- MongoDB
- React Native
- Docker
- SocketIO
- RaspberryPi

Product Result

Future Improvements

- A buzzer that will alert residents in the house if there is an intruder
- Scalability with easier installment
- Show data of house owners habits
- Windows and doors open/close indicator using magnetic sensor to alert user if they forgot to close a windor or door.