Group name: Swift tech
Topic: Smart cities
Design thinking: Elderly monitoring system

Client background
Lecturers and students of UTM said that they can manage their academic schedules while still actively participating in the care of their elderly relatives through digital monitoring. Students that are physically distant from their elderly said that it offers them a peace of mind because they will stay informed and connected to them.

One of the major problems they face is that they are not always able to assist their elderly families in emergencies. Another problem is that not all the UTM staff and students have medical experience that gives them the opportunity to care for the elderly. And also in the absence of a monitoring system, emergencies may go unnoticed, leading to delayed responses and increased risks for the elderly.

Existing technology/tool/method/solution/system used by client
Before June 11, 2022, our client used Closed-Circuit Television (CCTV) to monitor the movements and ensure the safety of his elderly at home. However, the inconvenience of CCTV required the client to be constantly alert by keeping an eye on the screen.

Our client has chosen traditional caretaking for the elderly, which avoids the constant need to monitor screens. However, concerns linger as the client worries about the possibility of the caretaker taking unforeseen and potentially harmful actions without prior notification.

Problem existing technology/tool/method/solution/system used by client
- Nowadays, various diseases can manifest and affect individuals at any time. Additionally, numerous potential risks may arise in our daily life, particularly for the elderly. One prevalent example is the risk of falls among the elderly.
- Lack of continuous monitoring can result in late detection of health issues or emergencies among the elderly.
- Collecting data on the elderly proves challenging, as many of them do not undergo regular comprehensive body checkups, and their health status is not consistently recorded in the system.

Ideas to overcome the problems
- We can implement the current available health caring systems such as faster fall detection, smart watch, smart ring and door sensors
- We can continuously monitor the health status of the elderly using the aforementioned technology. In the event of an emergency, the nearest hospital will be promptly notified, along with notifying the client.
- We can gather data from users who provide consent, and researchers can then analyse the collected data to find health patterns and increase efficiency of treatment.

Benefits from the idea
- It can monitor the user's health and daily activities.
- It will contact the nearest hospital for ambulance assistance.
- It can improve the healthcare system and also help to identify new diseases.