FACULTY OF COMPUTING
UTM Johor Bahru

SECP 1513: Technology Information System

Semester 01, 2024/2025

PROJECT PROPOSAL

HOUSE APPLIANCES MONITORING SYSTEM

“HashRemote”

Team Name : #HashTech

Section : 03

Team Members:

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Client Name:

1. LOGANAYAGI A/P SUPPIAH
2. TANG SWEE LING

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1. Introduction

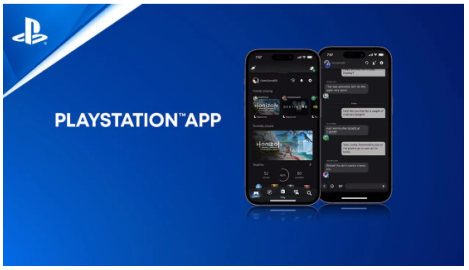
The House Appliances Monitoring System is a system that is connected to all the home appliances for real time monitoring and full user supervision and control.

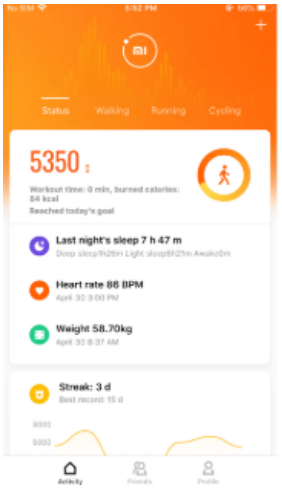
Need (N)	The problem that needs to be addressed is the inability to monitor and control house appliances for the safety and (something) of the consumer. Thus, the home appliances system will be able to give access to the user for full control & supervision of their home appliances.
Approach (A)	The system that has been implemented requires a modem that is connected to all the house appliances.. This modem will then proceed to collect real time data from the appliance and update our mobile & web application called “HashRemote”. From this application, the user can easily control and use all the features their appliances provide while being away.
Benefit (B)	The home appliance monitoring system allows users to always monitor any house appliances that could cause potential danger and also to save their home energy such as electricity and water consumption. This way, the user can prevent any dangers that would have occured and save their home from any damage and casualties.
Competitor (C)	Most of the products that exist are mainly focused on entertainment purposes, yet there is no system to monitor house appliances. Such examples are GoogleHome, SmartThings, Mi Fitness and PlayStation App.

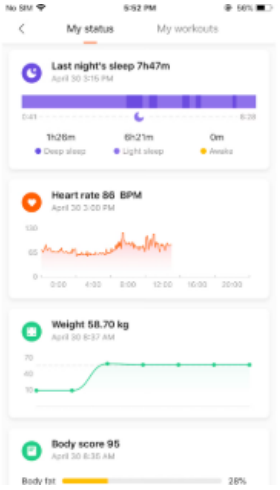
2. Existing Systems

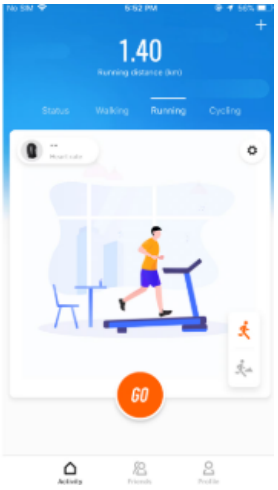
Most of the existing systems are mainly focused on entertainment purposes. These systems serve a purpose of connection between devices. The products do not offer much but the connection between devices and users profile management. Examples for these products are Playstation App, Google Home, Mi Fitness, Smartthings and many similar products of different brands. Nevertheless, there is no system that can monitor house appliances with real time monitoring and giving full access of the appliance to the user while away.

Features	HashRemote	Playstation App	Google Home
connection to any product	Yes	Only Playstation system	Some
Display All product features	Yes	No	Basic Function only
Real Time Monitoring	Yes	No	Yes
Connection to Home Appliances	Yes	No	Some









3. Proposed System

Our proposed system “HashRemote” is about a virtual remote system to control home appliances. The main idea of this system is the electrical appliances in the house are all connected to one wireless router. Unlike traditional smart home solutions that require specific brand compatibility, HashRemote ensures that users can control any electrical appliance, regardless of the manufacturer, as long as it is connected to the system. This means that we can do real-time monitoring to control every appliance without considering the brand of electrical appliances, which the system will provide live status updates on all connected appliances. Therefore, we can turn on or turn off and even remote the appliances to perform its desired functionality through our app, HashRemote. For example, we can control the switch of a microwave and also control its specific functionality such as preheat, defrost, steam and timer. Besides, with enhanced and strengthened guidelines or protocols, notifications or alarms will be sent to the users through our app in order to protect the appliances from damage and at the same time prevent the accidents from happening.In case of unusual activity, HashRemote will send real-time notifications or alarms to alert users. Warnings may include high power consumption, unattended appliances, or system errors, ensuring users can take immediate action. Moreover, the HashRemote mobile app also offers an intuitive and interactive dashboard, making it easy to manage all connected appliances. By integrating HashRemote into modern homes, users can experience a new level of convenience, security, and energy efficiency. The system ensures that home automation is not only smart but also safe and reliable for daily use.

4. Project Schedule .

Date	Project Progress?
17 Dec	- Team discussion on suggested system - Brainstorming multiple ideas
18 Dec	- Finalizing a system based on IoT - Proposing the system to Dr.Iqbal
27 Dec	- Contacting Client on their perspective on the system/product - adding improvement to the system design - fixing minor issues with the system
29 Dec	- Implementing new features suggested by client into system - adjusting and finalizing the system design
1 Jan	- Assigning task to all members as preparation for project presentation - All members give their finals thought and questions about the system to understand fully about the project
6 Jan	- Gathering materials for the system prototype - The team decided to have a modem and an app to soothe the system process
8 Jan	- System prototype which is the modem was successfully made - Presentation Paper was also made for clear information transfer during presentation
11 Jan	- The team gathered at a empty class room to record the presentation - We also made sure everyone was fully aware and known of the system we implemented. - Made a full documentary of the product and system made for future purposes

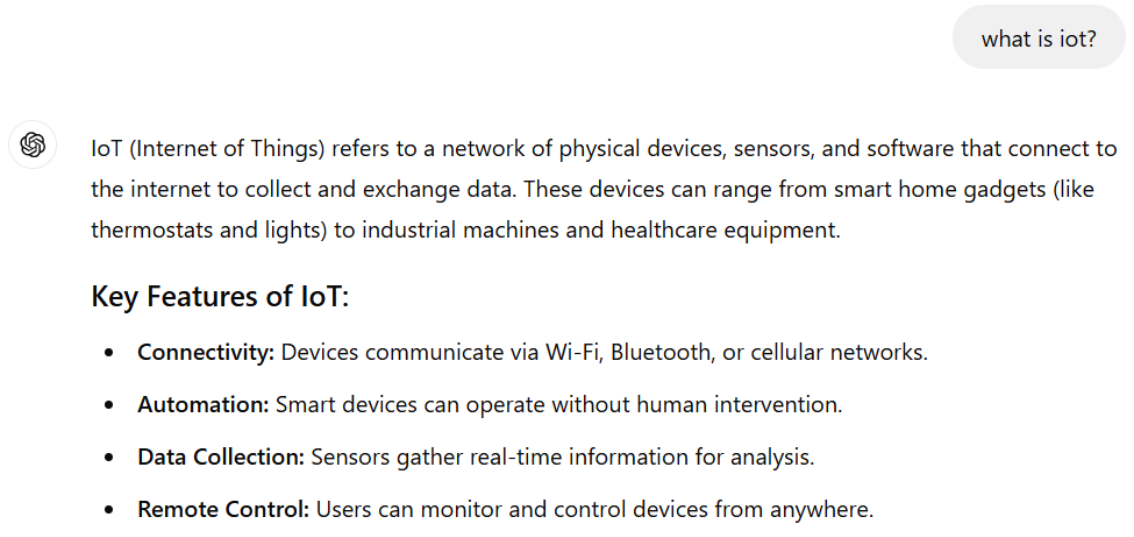
5. References

[1] Wikipedia contributors. (2024, October 18). *PlayStation App*. Wikipedia. https://en.wikipedia.org/wiki/PlayStation_App

[2] Yasar, K., & Gillis, A. S. (2024, June 21). *internet of things (IoT)*. Search IoT. https://www.techtarget.com/iotagenda/definition/Internet-of-Things-IoT

Appendices

We asked ChatGPT regarding a clear definition on what is Internet of Things (IoT) and it greatly helped us in conducting the project. The following image is the screenshot.



https://chatgpt.com/share/679cde2c-5684-8007-bdef-74fd63d40cbd

Marking Criteria	*Marks*
Introduction • *Needs* • *Approach* • *Benefits* • *Competitors*	*12 marks*
Existing Systems	*4 marks*
Issues or problem with existing systems	*4 marks*
Proposed System	*10 marks*
Project Schedule	*5 marks*
References	*2 marks*
Overall report quality	*3 marks*
Report Total marks	*40 marks*