uHome

Content

01
OBJECTIVE
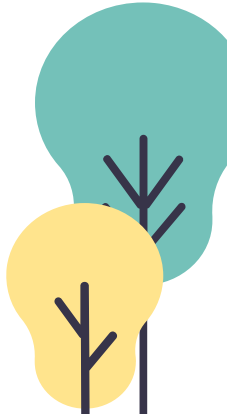
02
SCOPE

03
EXPECTED RESULT

04
CURRENT PROGRESS
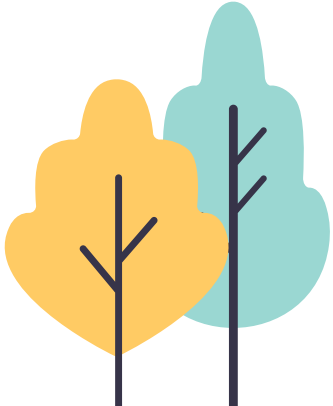
05
PROBLEM

06
FUTURE PLAN

Objective(1)

▷ To develop a platform that can support the use of IoT devices in the home environment including adding, removing and managing iot devices

▷ To develop a mobile application to control the IoT devices in a smart home.

▷ To integrate the uHome platform with IoT devices including camera, beacons and lights.

Objective(2)

▷ To use Beacons in order to trigger events.

▷ To use the data from other sources in order to automate the house based on their profile.

- Retrieve data from device that connect through the internet connection.
- Collect data from the internet for weather forecast and sunrise and sunset time.
- Store the data on a cloud server.

Scope

▷ An Android mobile application with Kotlin programming that can control smart home devices.

▷ Control electronic devices such as LEDs light bulbs, Alexa and Bluetooth enabled-devices.

▷ Trigger events according to the user activities.

▷ A platform serving as a backbone for the IoT devices that can be controlled by the mobile application.

Expected result

▷ A user friendly dashboard on Android mobile application.

▷ The application can control all the smart home devices.

▷ The smart home devices which trigger the users' activities and respond to the specific task.

UHOME

FOR BETTER LIVING

Current Progress

	Task	To do	In progress	Note	Done
1	Task	To do	In progress	Note	Done
2	Platform support IoT				
3	- Add			Add device and user to database	▓
4	- Remove			Delete device from database	▓
5	- Manage		▓		
6	Mobile app (Android)				
7	- Control IoT			Can communicate with beacon	▓
8	- User profile	▓			
9	- User friendly dashboard	▓			
10	Integrate platform				
11	- Beacon			Start/stop timer with backend and mibile	▓
12	- Light bulb		▓	Internet connection	
13	- Alexa		▓	Internet connection	
14	Automate				
15	- Beacon set timer				▓
16	- Retrieve data via internet	▓			
17	- Store data on cloud server				▓
18	- Notification		▓		
19	- Collect data such as sunset/sunrise	▓			
20	Backend as backbone				
21	- Control mobile app		▓		
22	Web app				
23	- Add			Can send information to backend to add to database	▓
24	- Remove			Click at device box to delete	▓
25	- Set up		▓	Need api with list of things we can set	
26	- Activate			Can enable-disable devices	▓

Problems

- ▷ Internet connection
  - ■ Get rid of proxy
- ▷ Restriction of different devices
  - ■ Compile with their regulation
- ▷ Difference in SDK level
  - ■ Update
- ▷ Limited access of free-version database
- ▷ Difference in environment of emulator and actual devices

Future Plan

December Notification UX/UI

January Automate

February Testing

March UAT

Done!!

THANKS