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Idea and Purpose

The Idea, is to create an app, which can connect to a users home network, and control any internet connected devices. Examples of of which is

Lights, including dimmable and variable coloured lights.

Gas Central heating,

Main elements of a Gas Central heating control are

Boiler on/off Boiler water temperature

Water on/off, timed control and water temperature

Zones, on/off Zone , timed control and air temperature

Water on/off, timed control and water temperature

User persona(2)

Describe a typical user

Devices, platforms and Operating systems

Monetization

Budget

Team

Design

**Requirements**

**Functional requirements**

Note, as per James’s file upload, happ should cover all of the labwork sessions within its own requirements

1. **Entry of User Details**

Name address Avtar etc

1. **Internet access.** 
   1. Create a Connection to a users home network
      1. Entry of connection details
      2. Entry of a Name and description of the connection
   2. Can user connect to other home networks? Like friends or family
      1. Display a list of homes to choose from
      2. Choose which one to connect to
      3. Display the name and connection description on the device
   3. What will happen if a user can’t get access to the internet?
      1. Choose what to do
         1. Abandon?
         2. Control anyway, and when connection restored update home network.
2. **Rooms, or Areas setup**
   1. Set up Individual rooms

From A list of default rooms

Living room, lounge, Bedrooms, bathrooms etc

Ability to add a new room name and description, if not on default list

* 1. Set up Outside areas

Outside buidings, similar to a.

Outside open areas, - default list

Ability to add if not on default

1. **devices**

Ability to set up a device, such as a light, plug, or thermostat

a list of default devices to choose from

ability to set up a new device if its not on the default list

Ability to control the device. Stating the obvious here

Ability to remove a device, perhaps remembering for a period, in case if it was removed by accident, that could save the user having to set the Whole thing up again

1. **Allocate Device to a room**
   1. User can move the device from room to room if required, an example could be moving a table lamp from one room to another

**Non Functional Requirements**

**User interface**

Eg colour schemes

**Useability**

The system will be easy to use

**Reliability**

The system available 99.9999% of the time

**Performance**

Eg, the connection to the home will be established within 5 seconds

**Security requirements**

The system must be secure!

The ability to log in with a password is a minimum.

At the home controller end, which is outside the scope of the project, there should be some form of authentication and authorisation, which will validate the connection, otherwise reject.

**Operating** **System**

Happ, will use the android platform for now

**Development**

Developed using android studio,

As a teamwork is required version control using github linked to android studio