

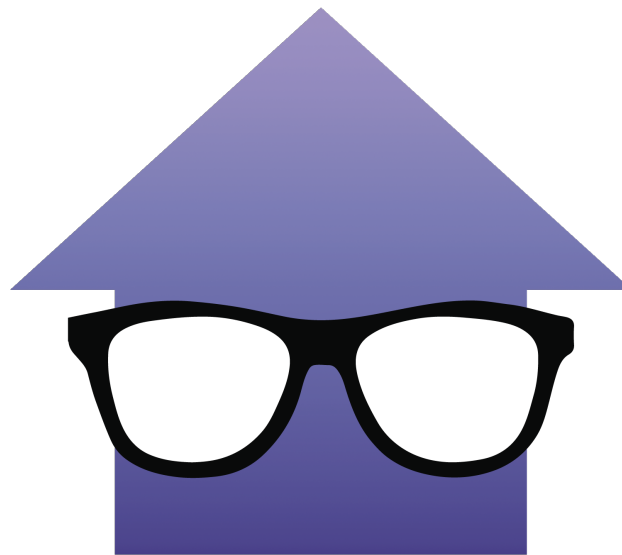


FACULDADE DE
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Smarter Hub

Stage 2: User and Task Analysis



SMARTER HUB

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Problem Description

Many times, you're in a rush to get somewhere and to just leave the house, but there's still so many devices to turn off and to deal with in many divisions of said house. Or, even worse, you just left the house and realized the stove was on, what will you do?

Imagine when you're trying to cook a nice, tasty meal, but you still must keep an eye on your children while they're playing in the backyard. The struggle to manage both situations can be tough to handle.

When you're really air headed and just can't remember where you put the tv remote, but your mom keeps nagging to turn the volume down.

Many problems that derive from these types of situations can be called simple and mundane problems, but everyone has had the misfortune to deal with them and lost their precious time on them (and we all know time is money)

Target Users

We want to make our product accessible and easy to use for most people, so we're aiming it to people from all ages and different backgrounds, as long as they have smart appliances which can connect to our system.

Tasks

Setup tasks

1. Register floor

Goal: personalize the user's interface according to their house's blueprint

Pre-conditions: the user must already be signed in (in the system)

Sub-tasks:

- a. Select "Add floor" option
- b. Select the floor's number (the user is given an input text)
- c. Click the "Add" button to finalize the process

Exceptions: The user did not insert a number

Frequency of use: Low frequency – this task is only used until all house floors are registered.

2. Register house room

Goal: personalize the user's interface according to their house's blueprint

Pre-conditions: a floor is already registered in the system

Sub-tasks:

- a. Select the floor the room will be added to
- b. Select "Add room" option
- c. Select the room type (living room, bedroom, kitchen, etc)
- d. Define the room's dimensions (width and height, given a scale)
- e. If there are other registered house rooms in the systems, the user must define the room location (according to the other already registered rooms)

Exceptions: N/A

Frequency of use: Low frequency – this task is only used until all house rooms are registered.

3. Register house device

Goal: personalize the user's interface according to the devices present in each house room

Pre-conditions: a house room is already registered in the system

Sub-tasks:

- a. Select the room where the device is supposed located
- b. Select "Add device" option
- c. Select the device's type
- d. Define device's location within the room's dimensions (dragging and dropping the device's icon)

Exceptions: N/A

Frequency of use: Low frequency – this task is only used until all house devices are registered.

4. Execute device's action

Goal: change a device's state

Pre-conditions: a device is already registered in the system

Sub-tasks:

- a. Select the device in question (from the Blueprint)
- b. Select which action should be executed (from a menu with all the possible actions)

Exceptions: N/A

Frequency of use: High frequency – this task will be executed every time a user wants to change a device's state

5. Delete device

Goal: personalize the user's interface according to the devices present in each house room

Pre-conditions: a device is already registered in the system

Sub-tasks:

- a. Select the device in question (from the Blueprint)
- b. Select the "Delete device" option
- c. Choose the "Yes" pop-up's option asking "You sure you want to delete this device?"

Exceptions: The user chooses the "No" option

Frequency of use: Low frequency – the user is expected to maintain their devices for a reasonable amount of time

Control tasks

6. Register User

Goal: register the user in the system so they can register their house's blueprint, rooms and smart devices

Pre-conditions: a device must be already registered in the system

Sub-tasks:

- a. Select the "Make an account" option
- b. Write the email in the corresponding text box
- c. Write password in the corresponding text box
- d. Agree to the terms and services
- e. Click the "Finish" button to finalize the task

Exceptions: The email used is already linked with another account

Frequency of use: Low frequency – each user will only need to sign up once

7. Sign in in the system

Goal: the user signs in in the system so their able to use the system

Pre-conditions: the user isn't already signed in

Sub-tasks:

- f. Select the "Sign in" option
- g. Write the email in the corresponding text box
- h. Write password in the corresponding text box
- i. Click the "Sign in" button to finalize the task

Exceptions: 1. the user writes the wrong password (according to the used email)
2. the used email isn't associated with any account (in the system)

Frequency of use: Medium frequency – the frequency of this task will depend on how many times a user signs in and signs out of the system

Scenarios

- Scenario 1: Maria's husband just wants to watch the game

Maria is in her office and her husband asks her to turn on the living room's TV since he doesn't know where he put the remote and he just can't miss the new Benfica game. Maria accesses the website, turns on the TV through the website and changes the channel to "Benfica TV".

- Scenario 2: Give John a break (give him a kitkat)

John, who had such a lovely coffee machine, is now devastated because the machine came with manufacturing defects. Frustrated, John refuses to buy from that brand ever again and decides to go for the competition. John needs to delete the disappointing machine from Smarter Hub's system and add the competition's machine. Now, John can start doing his coffee while he takes his morning shower without putting a foot in the kitchen.

- Scenario 3: The Name's House. Smarter House.

Zachary just bought a new house and wants to buy a few appliances. After returning from the electronics shop Zac entered the Smarter House website and registers his account. Not only is he a new user he also doesn't have any registered rooms, which are needed to register the appliances. To solve this little issue Zac started by registering the rooms he has appliances he wants to control, in this case his kitchen and leaving room, and then his home devices (specifically his television and fridge). Completed the registering process, he wanted to test the system's settings, so he decided to change the channel on his TV. Consequently, at the end of the test the TV had its channel changed from SIC to TVI.