



DESIGN DOCUMENT

COMPSCI 345 Assignment 03

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Table of Contents

(a) Walkthrough with wireframes.....	3
<i>Persona</i>	3
<i>Scenario</i>	3
<i>Wireframes</i>	3
(b) Colour scheme	7
(c) Layout scheme	8
(d) Resources Used	9

(a) Walkthrough with wireframes

Persona

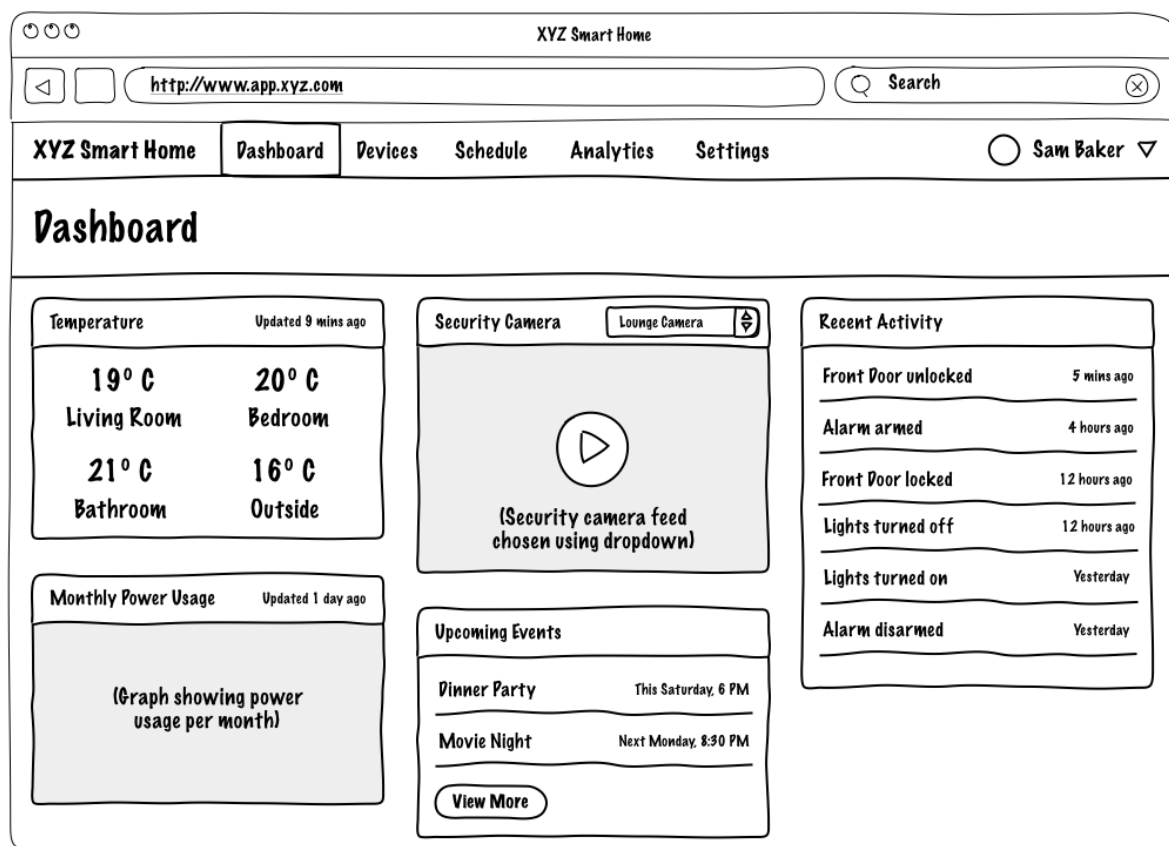
Sam Walker, 28, lives in Auckland and works as a management consultant for a multinational consulting firm. Sam is confident with technology, however as a busy person, he has no patience for software that is slow or hard to use. Sam often travels overseas for work and therefore wants to be able to remotely monitor his apartment and unlock it for tradespeople such as plumbers.

Scenario

Sam is attending a conference in Melbourne. Between talks, he receives a text from his plumber Mike to say that he has arrived. Sam opens the XYZ website, checks the front door camera to confirm that it really is Mike, and unlocks the front door to let Mike in. Twenty minutes later, Sam checks the kitchen camera to see that Mike is still working. Mike later texts to say that he has finished. Sam checks the lounge security camera to ensure Mike has turned off all the lights, and locks the front door before going to his next conference talk.

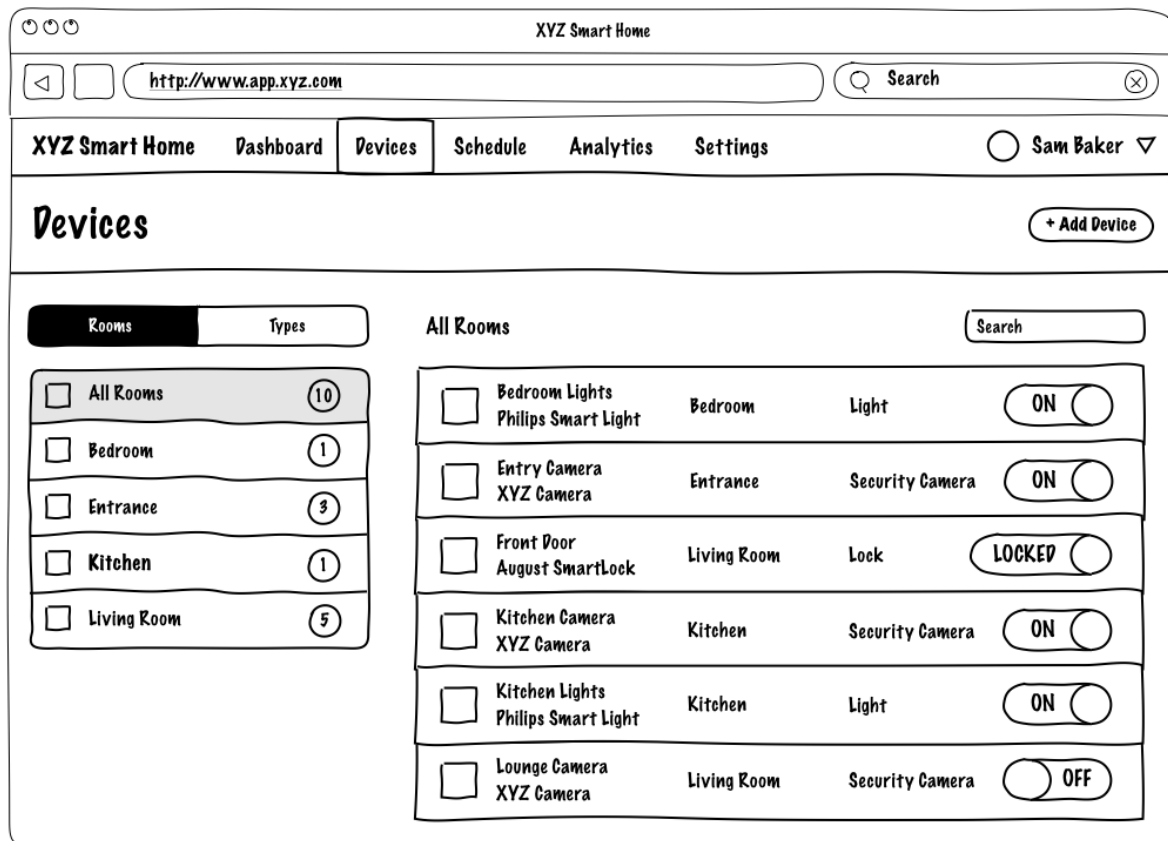
Wireframes

Dashboard



The Dashboard page is the first page that Sam sees after logging in. This page provides an overview of important information such as temperature, power usage, upcoming events, and recent activity related to the home automation devices that Sam has installed. There is also a panel for security cameras. When Mike the plumber arrives, Sam chooses 'Entry Camera' from the dropdown to the right of 'Security Cameras'. Sam clicks the play button to view a live feed from the camera so that he can check that it is Mike before letting him in.

Devices (All Rooms)

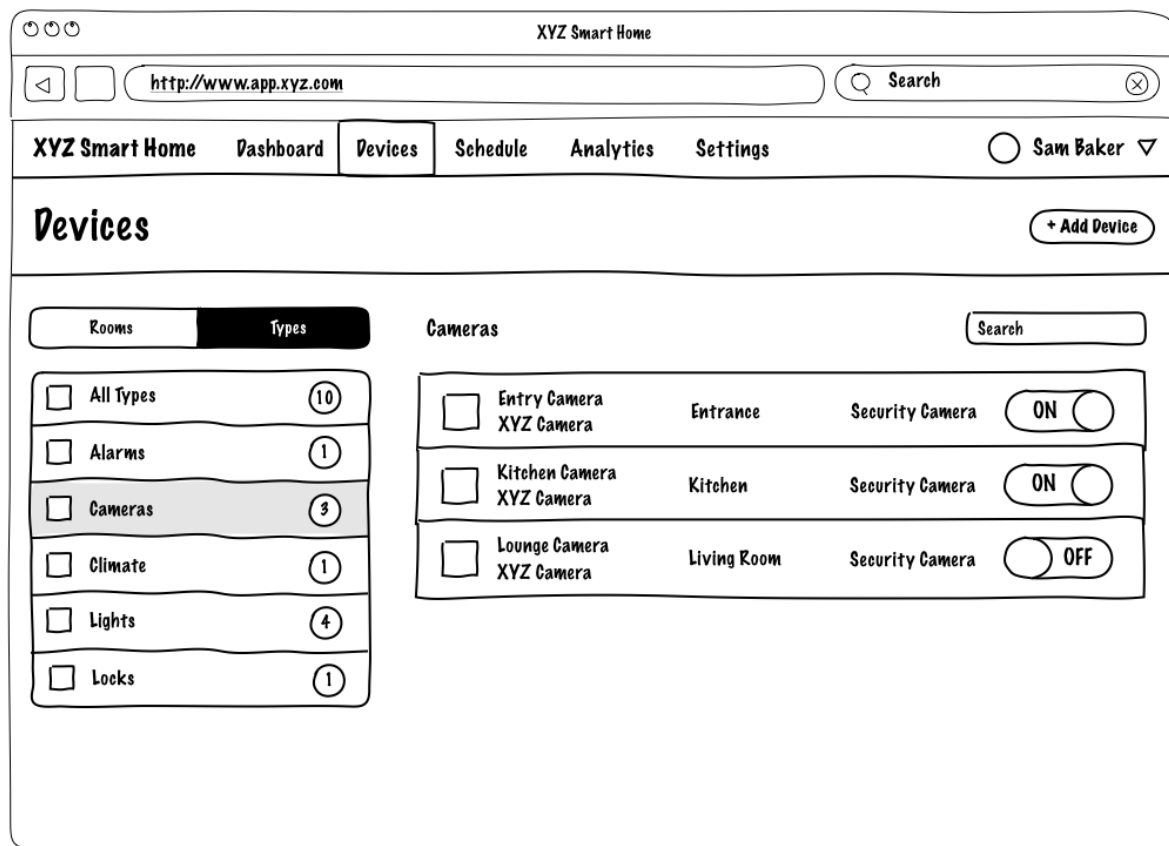


Sam navigates to the Devices page by clicking the 'Devices' option in the top navigation bar. The Devices page provides a list of devices on the right-hand side and a list of different filters on the left-hand side. By default, the Rooms tab is selected in the Rooms/Types toggle, and below the Rooms tab is a list of the different rooms in Sam's home. Note that the small squares are placeholders for icon images.

Clicking on a room causes the list of devices on the right-hand side to change to only show devices assigned to the selected room. Lights and security cameras can be turned on and off, and locks can be locked and unlocked, by clicking the switches at the right-hand side of the row for each device in the list of devices.

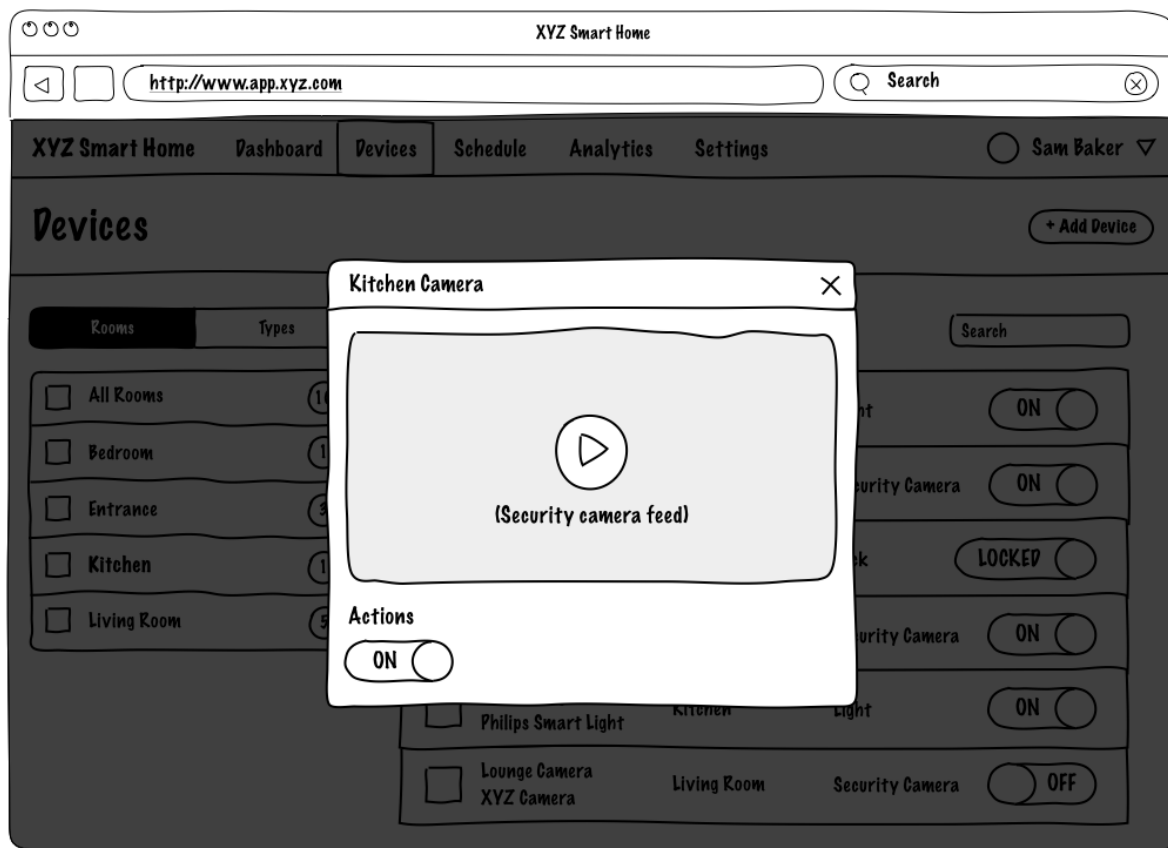
Sam clicks the LOCKED switch (represented as a lock icon in the HTML prototype) next to the Front Door device to unlock the door. To check that Mike is working, Sam clicks anywhere on the Kitchen Camera device (except the ON/OFF switch) which opens a modal window, as illustrated in the wireframe after the next one.

Devices (Cameras)



Similar to the previous wireframe, this wireframe shows the devices page when the Types tab is selected from the Rooms/Types toggle, with the Cameras type selected from the list of device types. As the Cameras type is selected, the list of devices only shows cameras. These cameras can be turned on and off by clicking on the switch on the right-hand side. Sam may choose to click on the Types tab if he wants to quickly find a device of a given type.

Devices (Camera modal)



Clicking anywhere within the rectangular box for a device (except the switch) brings up a modal pop-up window with additional options. (Note that this has only been implemented for devices included in the scenario.)

About 20 minutes after Mike has arrived and Sam has unlocked the door, Sam clicks on the Kitchen Camera to bring up the modal shown above. Clicking anywhere within the grey rectangle labelled 'Security camera feed' will play a live-stream of the security camera. The video can be paused by clicking on the video.

After Mike has finished, Sam views the Lounge Camera from the Devices page to see that no lights have been left on. He then locks the door by clicking the switch to the right of the Front Door lock.

Note that in the HTML prototype, when the Front Door lock has been unlocked, the Entry Camera will no longer show Mike, and Mike will appear when viewing the Kitchen camera.



Devices (Lock modal)








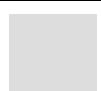


Similar to the previous wireframe, clicking on one of the lock devices brings up a modal pop-up window with additional options and information. From this modal, the lock can be locked or unlocked. The passcode can also be changed, by clicking the change passcode button, which causes a form to appear where the user can enter their current code, followed by the new code twice, and then click Submit to save their changes.

(b) Colour scheme

The colour scheme of the prototype is a combination of a grey-blue monochromatic colour scheme and an analogous teal colour. The grey-blue hue with base colour `rgb(50, 60, 75)` and several different tints and shades is used for most elements of the site. This muted, grey-blue hue was chosen because it is non-intrusive and therefore not tiring for users who will likely be interacting with the design regularly. An additional teal colour was also used to distinguish important elements such as hyperlinks, buttons, and controls from other elements. This teal colour effectively draws users' attention, without being overly dominant or distracting.

	<code>rgb(50, 60, 75)</code> <code>#323C4B</code>	Navigation bar background, heading text
	<code>rgb(82, 98, 122)</code> <code>#52627A</code>	Navigation bar active menu item background

	rgb(240, 242, 245) #F0F2F5	Page header background, footer background, Room/Type menu hover background, Dashboard widget header background
	rgb(249, 250, 251) #F9FAFB	Devices list hover background
	rgb(0, 150, 140) #00968C	Button background, link colour, power usage chart line colour
	rgb(0, 128, 119) #008077	Button hover background
	rgb(0, 51, 48) #003330	Link hover colour
	rgb(51, 51, 51) #333333	Text colour
	rgb(84, 84, 84) #555555	Light text colour
	rgb(222, 222, 222) #DDDDDD	Border colour

(c) Layout scheme

- Icons were used to enable users to efficiently recognise options, such as links in the top navigation bar and devices on the Devices page.
- On the Dashboard page, borders were used to create separation between each of the five panels. A border is also created by the contrasting colours between the navigation bar and page header, grouping the navigation and clearly separating it from the main content.
- On the devices page, the options for filtering the devices are on the left-hand side by convention, with the list of devices to the right occupying more of the available width, as they are the most important elements on the page.
- The devices on the Devices page are presented as a table with columns for name, room, type, and any associated actions (such as ON/OFF). Displaying devices as a table enables users to quickly scan to identify the device they are looking for.

(d) Resources Used

- Bootstrap - <http://getbootstrap.com/> - Front-end framework used to provide base CSS styles for buttons, tabs, navigation, columns, and the pop-up modal for individual devices. These styles were overridden in order to match the design described in Task One.
- Bootstrap Switch - <http://www.bootstrap-switch.org/> - JavaScript library and CSS styles used for ON/OFF switch functionality, such as turning lights and security cameras on and off.
- Font Awesome - <http://fontawesome.io/> - Icon font used to provide icons for device types, rooms, and the top navigation bar.
- jQuery - <https://jquery.com/> - JavaScript library used to make it easier to manipulate the DOM, such as hiding and showing DOM elements when filtering devices, and toggling the play button when viewing security camera footage.
- Source Sans Pro - <https://github.com/adobe-fonts/source-sans-pro> - Sans Serif font used throughout the design. This font was chosen because it is specifically designed for user interfaces, is easy to read, and matches the clean aesthetic of the prototype.
- Plumber image - <http://www.bayareaplumbinginc.com/wp-content/themes/bap-2015/imgs/plumber.png>.
- Apartment lounge and entrance images - <http://www.trademe.co.nz/property/residential-property-to-rent/auction-1089866085.htm>.
- Apartment kitchen image - <http://www.trademe.co.nz/property/residential-property-to-rent/auction-1087645384.htm>.