ProSecurity

HOME SECURITY AND HEALTH

USER EXPERIENCE DESIGN SUMMATIVE
2107-CRA-WDP
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Project Scenario & Goal

An existing electronics company is planning to release a new service for homeowners. Using a series of connected devices (smoke detectors, cameras, audio devices, lights, blind controls, etc.) they intend to give customers control of their home and awareness of its health and security. Customers will be able to monitor and control their home from wall mounted tablets, and a web app accessed and controlled on smart TVs or from anywhere using their mobile phone.

Treaty of Waitangi Implications

The Treaty of Waitangi is significant because the signing governed the relationship between Māori and everyone else. Today the Treaty means there must be respect between Māori and non-māori. It's important people are considerate and respect each others differences.

Considerations

When developing my designs and application, it's important I consider principles of Māori Tikanga and the Treaty of Waitangi. Some principles include partnership, participation and protection. I will research and confirm with a person who has studied the language to make sure I'm not using any designs that could offend Tikanga.

Market Research

ADT Security Services

ADT is a home and business security company based in Florida, US. They offer a service of installing home security systems and on-call security officers. ADT (standing for American District Telegraph company), started as creating a telegraph-based telegraph system. Inspired from when the companies president woke up to a burglar in their home, a few years after the company was founded. ADT now operates around the world, with 18,000 employees, as stated in 2018.

A range of packages are offered, where as usual, the higher cost packages offering more. But all starting from $499 up front, followed by a monthly fee. ADT has generally three divisions for their services. Home security, interactive security and business security. The main difference between home and interactive security, is home security being more for what the name suggests, security. Whereas interactive security includes the ADT home automation app which can be accessed from personal devices anywhere on earth. This where you can control climate, access security cameras, and remotely arm and disarm the home alarm.

SWOT Analysis

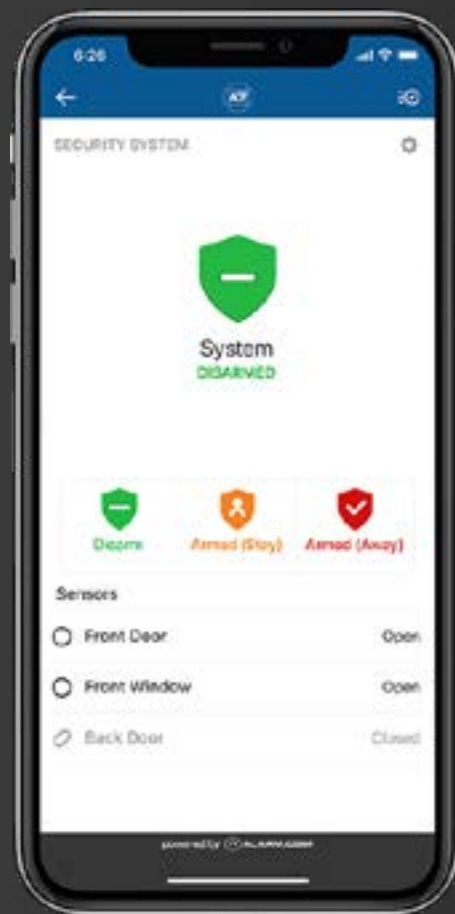| Strengths	Weaknesses
- Quick access to important inputs and buttons. - Would look good in most home interiors. - Constant view of house security status. - Fairly good hierarchy to show what is most important on main page.	- Very big navigation, makes it a little harder to find pages. I believe a lot of the links could be put in dropdown menus. - Personally, I think the app looks a little boring. I have had the app for nearly a couple of years now and have never really been on it.
Opportunities	**Threats**
- One of the only companies providing a worldwide service of installing their own security systems and having on-call security officers.	- The app is slow which can put users off using it. It creates an unsatisfying experience.

Market Research

Control4

Control4 is self-described as "a leading automation system for homes and businesses, offering a...smart home system to automate and control connected devices including lighting, audio, video, climate control, intercom, and security."

Control4's core product is the touch screen tablet, which includes their new Smart Home OS 3. Their tablets can be mounted on walls, and offers full home automation. With access to control inputs for your music and home entertainment system, window shads, lighting, climate control, security cameras and system, door locking, garage door and pool. As well as the tablet, they also sell security packages and products, and other products for home automation.

Competitor Designs

Theses are some of the existing competitors designs. The designs differ depending on the package purchased by users. They are offered on mobile, tablet and computer. I like ADT's UI as it's clean and modern. Unlike the Control4 UI which I think looks too old for a newly released interface.

User Survey & Findings

Questions

1. What gender are you?
2. What area of New Zealand do you currently reside?
3. Do you own the current residence?
4. Is knowledge about your homes health important to you?
5. Would you spend more money to increase your homes security?
6. Would you expect a monthly subscription fee after an upfront payment for a home health and security package?

Findings / Answers

- 10 Surveys were sent out, 9 Adults, 1 teenager. All of which were completed.

1. Male 70%, Female 10%, Prefer not to say 20%.

2. 90% upper North Island, 10% lower North Island.

3. Yes 55.56%. No 44.44%.

4. Yes 90%, No 10%.

5. Yes 90%, No 10%.

David Thompson

Accountant

47, married, Christchurch, NZ

BIO

David is a Christchurch home owner with a profession in accounting. With his firm giving more responsibility to David. He makes the most of every minute spent at home at night and on the weekends. To send time with his two children and partner. On weekends, his family tend to go out and find fun activities. Their most favoured being go karting and mini golf.

GOALS

- Be promoted within his company.
- Save up for a complete renovation of his current families home.
- Create a healthier and safer home for his family.

WANTS & NEEDS

A simple and elegant, home and security system for his family.

Jessica Walker

Small Boutique Owner

34, married, Auckland, NZ

BIO

Jessica is a small business owner living in her Ponsonby, Auckland home, with her partner. She has owned and ran a boutique in Ponsonby for the past four years. Selling local brands and some of her self-designed clothing. When Jessica is not working in her boutique on weekdays, she is in the Auckland CBD and North Auckland, taking photos for her photography collection. A hobby Jessica has used to make some small money on the side to help the boutique. Mostly taking landscapes and street photos, Jessica shoots for the occasional wedding or party thrown by friends and/or family.

GOALS

- To grow her business online and move to a bigger store in Auckland City.
- Buy a house to move in with her partner.
- Become more aware of her homes health and security.

WANTS & NEEDS

An app on her phone she can use to monitor her home and business.

Card Sorting

I did card sorting with two people to help me come up with a well functioning and understandable sitemap. Results of both were very close. However, I belive the second map was better. As it put the more important pages first, and I disagreed 'contacts' should have been put under settings. So with that, I will be using sitemap two as a base for my application.
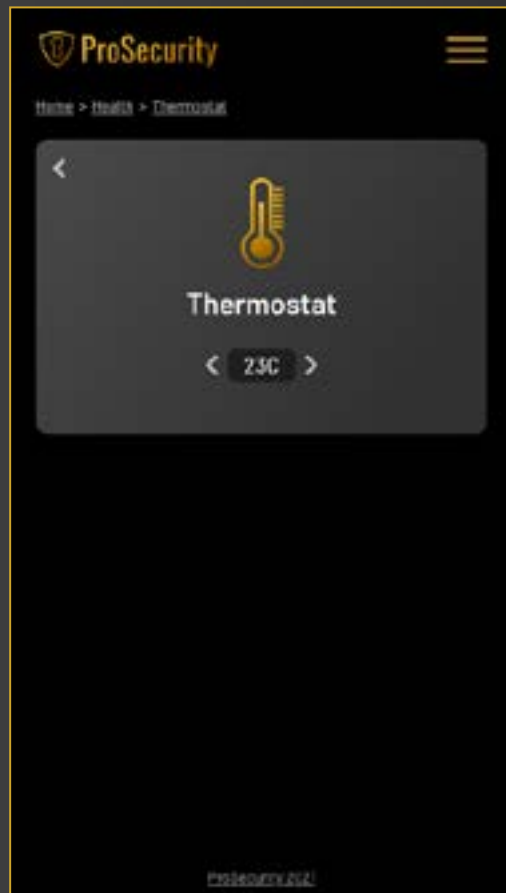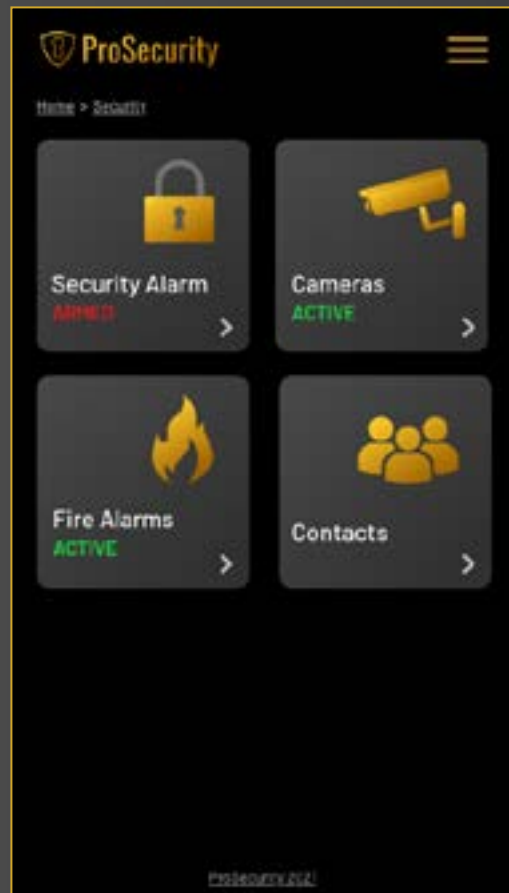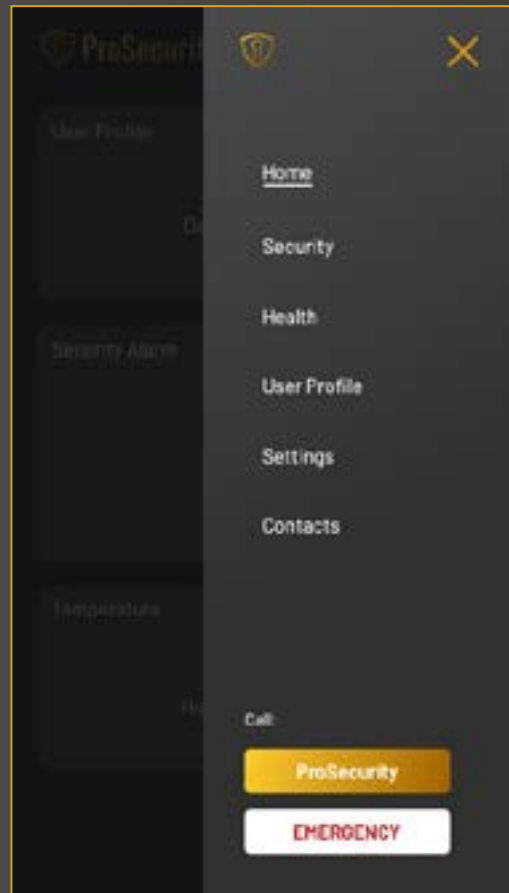
Sitemap One

```
                          Home
        ┌──────────┬────────┴────────┬──────────┐
     Security    Devices          Health     Settings
        │          │                │           │
     Garage      Lights          Humidity    Contacts
        │                           │
      Doors                       Weather
        │                           │
     Sensors                    Thermostat
        │
       Gate
        │
     Cameras
```

Sitemap Two

```
                          Home
        ┌──────────┬────────┬────────┴────────┬──────────┐
     Security    Health   Devices          Settings   Contacts
        │          │         │
     Garage      Humidity  Lights
        │          │
      Doors      Weather
        │          │
     Sensors    Thermostat
        │
       Gate
        │
     Cameras
```

🛡 High Res w Feedback

User One

• Looks good, everything very clear.
• Needs to be back button on security and health pages.
• It's easy to find things.
• Should have link to home screen from logo.
• When asked to change the theme they struggled initially to find it in settings, but eventually found the button to the page.
• They thought colours went really well together, good contrast and eye catching.
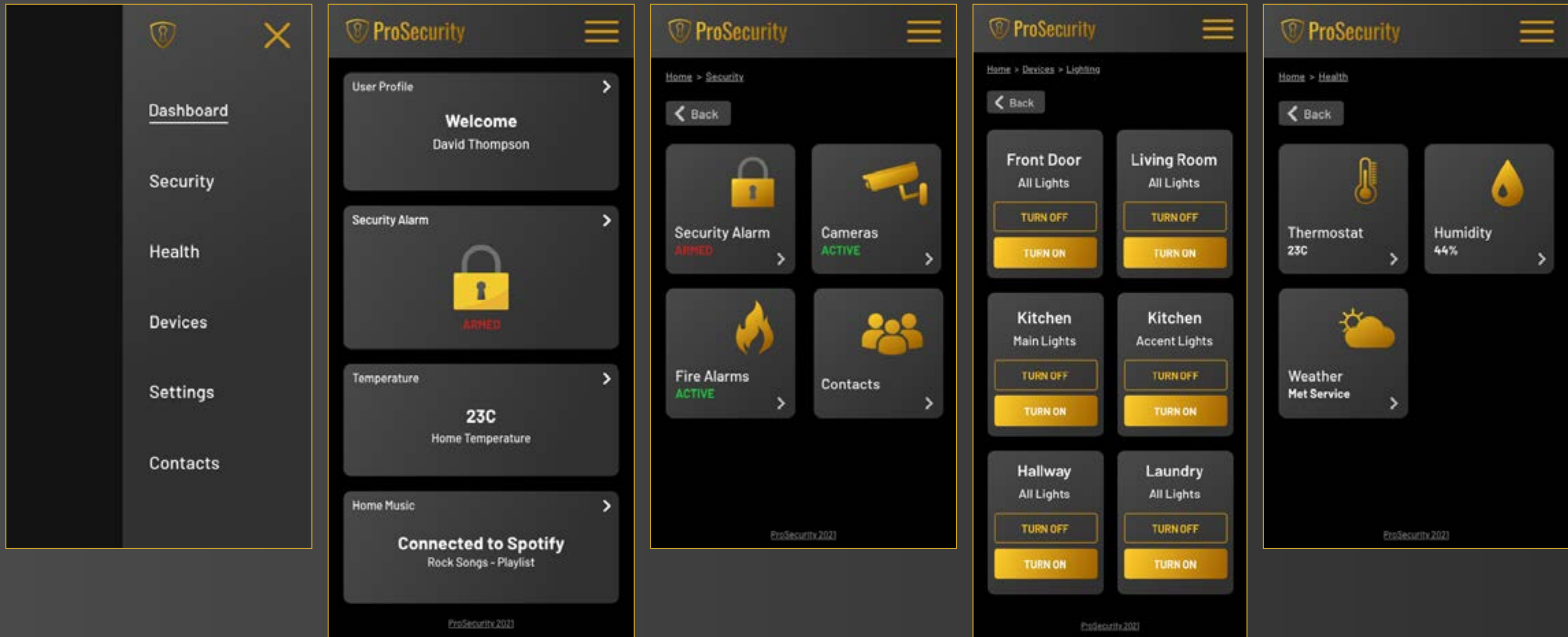
User Two

• Sizing needs to be adjusted, including button sizes as it was hard to click some of them.
• Links were expected to be seen on breadcrumbs but weren't there.
• Background could be played with, what does a textured background look like.
• Could be some for styling added to the nav buttons, as well as adding a way of knowing what page you're currently on.

Response

I agree with nearly all the feedback I received for my high res design. Especially with the sizing of elements and buttons. Some things needed to appear bigger, and the buttons were quite hard to press. I agreed with the active page feature and planned to do it, however plan to implement it in the coding, and not the prototype. I thought implementing a texture into the background was an interesting idea, however I am quite happy to stick with a solid colour, or perhaps a gradient.

Prototype

Live Prototype:
https://xd.adobe.com/view/2621d6b3-571c-4c9c-a9ff-a592a853f6bd-7372/

User Testing

Testing Questions
1. Find access to your security cameras.
2. Learn more about humidity controls.
3. Find a list of the apps registered users.
4. Find the laundry light controls.
5. Go to the home widgets toggle page.
6. How did you find navigating the application.
7. Do you have any aesthetic suggestions.
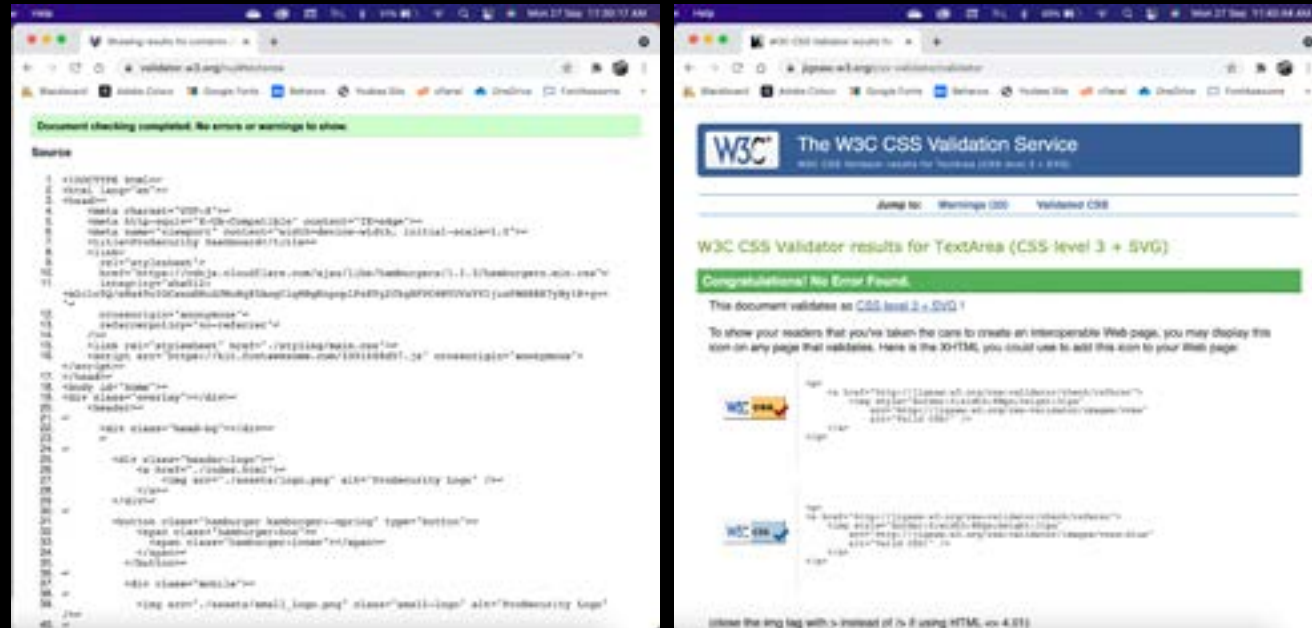
Answers
Simrat, 18, business student
1. Found it straight forward and easy.
2. Knew it would be under health, was surprised by the 'learn more' button.
3. Found it through home screen but was initially unsure.
4. Found control easily through nav button for devices.
5. Thought themes was easy to find.
6. Said navigation through the app was straight forward and easy.

User Two
Andrew, 48, business owner
1. Didn't take long to find the security camera footage. Found it through the nav link to security features.
2. This took a little longer but managed to find it through a few pages.
3. Found it very easy, just clicked on user, on the home dashboard.
4. Had to look over the navigation buttons before deciding to click on devices. Finding light controls from there.
5. Went straight to settings and found themes.
6. Was as expected, nothing was too hard to find.
7. Didn't have any suggestions, thought the design style had good consistency, and the gold wasn't too overpowering.

Mockup Validation

Methodology

To style my mock-up I used SASS. Which made it easier and faster to code the application. I broke up my sass stylesheets into four seperate documents. They were as follows:

_base: mixin's and variables.

_components: nav bars, backgrounds, buttons.

_layout: articles, containers, features.

_main: overarching styles.

Code Validation

Validating my code through online html and CSS validators has found no faults or errors. Which is good because it means the code has been written out correctly in regards to regulations.

Reflection

Personal Relfection on Project

I am very happy with the design I have come up with. The interface is somthing I'd pay money for, and implement into my home. I believe the design appeals to all ages. Pairing well with the easy functionality. I made sure to use ux common guidelines such as using breadcrumbs for users. Along with the breadcrumbs, page back buttons, and the app navigation bar. There are quite a few ways of getting to most the pages.

From the start of the project I got nearly all positive feedback. Making it easier to stay on course to create a satisfying application. During prototyping, I used a phone throughout to judge proportions and sizing. Therefore when it came to the mock-up, I didn't need to make any adjustments. Only new elements I had to think about were transitions, that couldn't be acomplished in Adobe XD.

Live Website:
http://ryanbakker.yoobeestudent.net/pro_security/

References

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