CASE STUDY: PETGUARD

MY ROLE

User Research
User Interviews
Journey Mapping
Sketching
Wireframing
Screen Flows
Visual Design

PLATFORMS

Mobile app
Smart Collar

YEAR

2018

TEAM

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UI Design - Pet Walker
Visual Design - Logo Construction
Visual Design - Logo Usages
Visual Design - Iconset
Visual Design - Typography & Color Theme

CONCLUSION

PetGuard

Keep Your Pet Safe

Will your pet be safe if a natural disaster strikes or in case of emergency?

Many people think of pets as family members and worry when pets are alone at home in the event of an emergency or a natural disaster. How to save pets in the emergency when you are away from the house? If your home is on fire and you can not go home soon, how should you get your pet?

PETGUARD - DISCOVERY

The Approach
Target Audiences
User Interview
User Survey
Affinity Map
Competitive Analysis

62%

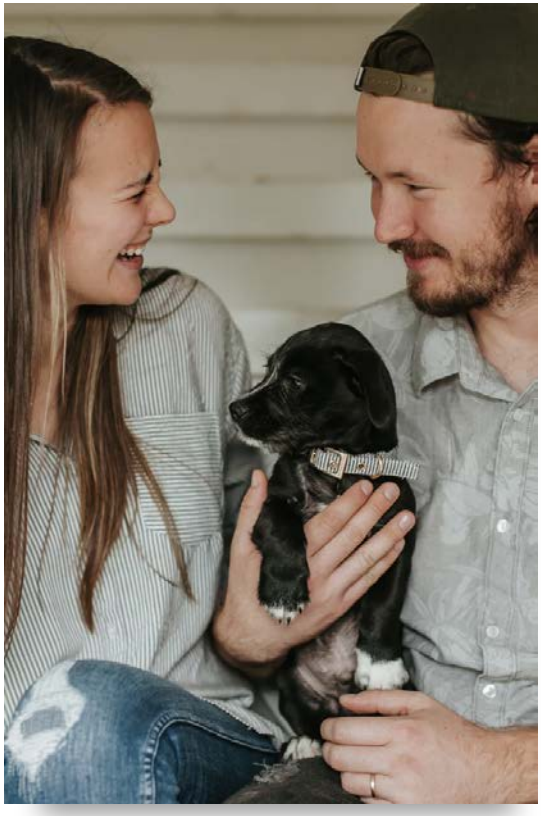
of Americans have pets

90%

Consider their pets members of their family

40,000 pets

Die in residential fires each year, mostly from smoke inhalation, and 500,000 pets are affected overall



Primary Target

Pet Owners

Secondary Target

Pet walkers(Sitters), Other PetGuard Users

**Google form (22 Reponses)*
https://forms.gle/A6KyFAKkfjGPrL5A6

If disaster happened nearby your area, would you willing to help?

Yes	80%
No	0%
Maybe	20%

How important is your pet to your life?

Important	
Very important	
Important as others in family	

Are you willing to risk yourself to save your pet in a disaster situation?

Willing to take the high risk	90%
Can take a minor risk	10%
Won't take any risk yourself	0%

Have you ever worried that your pet would be dangerous?

- Yes, Usually my dog stays at home alone, I always worry about him.
- If there is some hazard that's enough open to them In my absence, I would be worried
- Yes when we lock her in the house

Are you interested in learning how to deal with pet emergency situations?

- Yes, wants to learn how to prepare for an emergency for dogs.
- I would like to learn more about it.

What is the biggest disaster that can happen when a pet is at home?

a. Gas leak	30%
b. Fire	40%
c. Lost	
d. Earthquake	
e. Everything	30%

Key Findings through survey and interviews

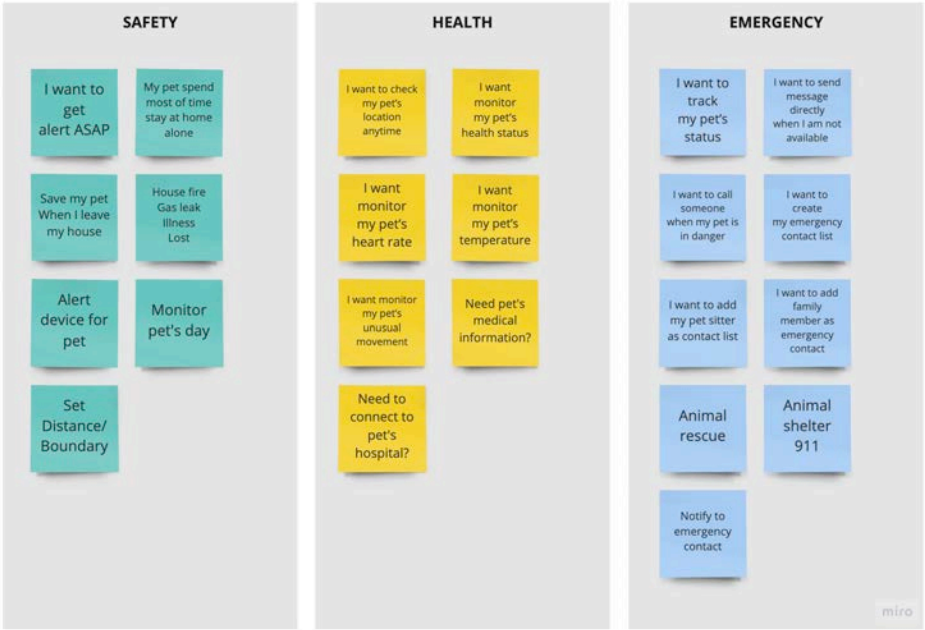
- **Emergeny**
- **Contact List**
- **Pet's Health Status**
- **Safety**

Interview method

- Google form survey
- In-person interview

In-person interview (4 Responses)

Questions	**How important is your pet to your life**	**Where does your pet spend a lot of time?**	**If pet is at risk in a disaster situation**	**where to ask for help when pet is in danger?**	**What is the biggest disaster can happen to pets?**
Interviewee 1	Important	Home	I can take a high risk of saving the dog.	No, not specifically, maybe animal rescue?	Fire, Illness, Lost
Interviewee 2	Very Important	Home	I would make as many efforts I can.	No. But I would like to learn more about it.	Gas Leak
Interviewee 3	She's our family member very important	Home	I can take a high risk of saving the dog.	No	Everything
Interviewee 4	Important	Home	I can take a high risk of saving the dog.	No, not specifically, maybe animal rescue?	Fire



** Affinity mapping method in team meeting*

Based upon data from in-person interviews, surveys, I organized my observations and categorized them using an affinity map. They think their pets as a family member and willing to take a risk to save their pets in case of emergency, also not only their pets but also would to like save the neighbor's pet. Pet owners worry about their pet threaten by house fire or gas leak. According to information, We're able to find the most important to the pet owner

Brand	Ready	American Red Cross	Whistle
About	Launched in February 2003, Ready is a National public service campaign designed to educate and empower the American people to prepare for, respond to and mitigate emergencies, including natural and man-made disasters. The goal of the campaign is to promote preparedness through public involvement. www.ready.gov	Pet First aid app puts veterinary advice for everyday emergencies in the palm of your hand. Users get the app and could be prepared to act when called up on. With videos, interviews quizzes and simple step-by-step advice it's never been easier to know Pet First Aid. www.redcross.org	The smarter way to keep tabs on your pet's location and activity levels when they're living it up, at home, in the park or on the run. www.whistle.com
Features	- They help you be informed through tools on their website - Make prior plans for pets and find shelter for them - Provides Tips to build Pet kits by downloading a PDF for your pet in disaster situation	- Convenient toggle between cat and dog content - Simple step-by-step instruction guide - Everyday emergencies check - Prepare and protect your pet's health with advice on - Administering medication	- Location Alerts : Get email, app or text notifications - Custom Safe Places - Set multiple Places using Wi-Fi - Track your dog's daily activity and rest - Set custom goals and receive notifications if there are significant changes to their activity or sleep patterns
Pros	They have direct links to Shelter homes for Pets www.gopetfriendly.com They provide good tips for all pet types and also Kit building pdf's	Very categorical regarding pet's disease this could be useful with very basic concerns or questions related to my pet's health	Fast geolocation Customizable safe zones and profiles Activity monitoring Long battery life
Cons	Limited help for pets More focused on human evacuation No app for pet rescue No video, just a descriptive kit manual	It is not for disaster There are just information, not communication	Wi-fi connection is must to activate tracker. Works only with AT&T network Power save mode doesn't work within safe-zones
Usability	★★★☆☆	★★★★☆	★★★★☆
Functionality	★★☆☆☆	★★★★☆	★★★★☆
Simplicity	★★★★☆	★★★☆☆	★★★★☆
Accessibility	★★☆☆☆	★★☆☆☆	★★★★☆
Fun to use	★★☆☆☆	★☆☆☆☆	★★★★☆

PETGUARD - DEFINE

Persona A
Persona B
Mind Map
Key Findings
User Journey Map
User Scenario
SWOT
Solutions
Features - App
Features - Smart Collar
How it works

Maria Batson

City: SF
Age: 27
Occupation: Product manager
Status: Single

About

Maria lives in SF by herself. She is a product manager and because of her work schedule and work pressure she doesn't stay at home much. She works late and usually gets home by 10 p.m but due to the project deadline she has to be at work even are late. She has a dog named Jack. The dog she owns is a two year old corgi. She doesn't spend too much time home seeing her dog. Maria lives near mid-Market in a one bedroom apartment. There had been a fire in her neighbourhood and she is now scared of her dog being involved in such a emergency even when she has a part time dog sitter.

Goal

- To observe her pet in real time whenever she wants or in emergency situation
- Track Jack's health condition

Frustration

- She does not sure that Jack has enough exercise
- She is too busy to take care of her dog well nowadays

Jacob Davis

City: SF
Age: 25
Occupation:
Architecture student
Status: Single

About

Jacob studies architecture design in San Francisco and also works as an intern. He has a dog and loves to spend time with him. Jacob and Bobby have been together for 10 years. Jacob has very less time on weekdays to spend with his pet as he has college and works both to attend. He uses Petguard app for a few months and keeps track of his dog bobby through it. He gets home usually by 9.00 pm and makes sure he plays with his dog before he goes to bed. He has to leave for work early in the morning.

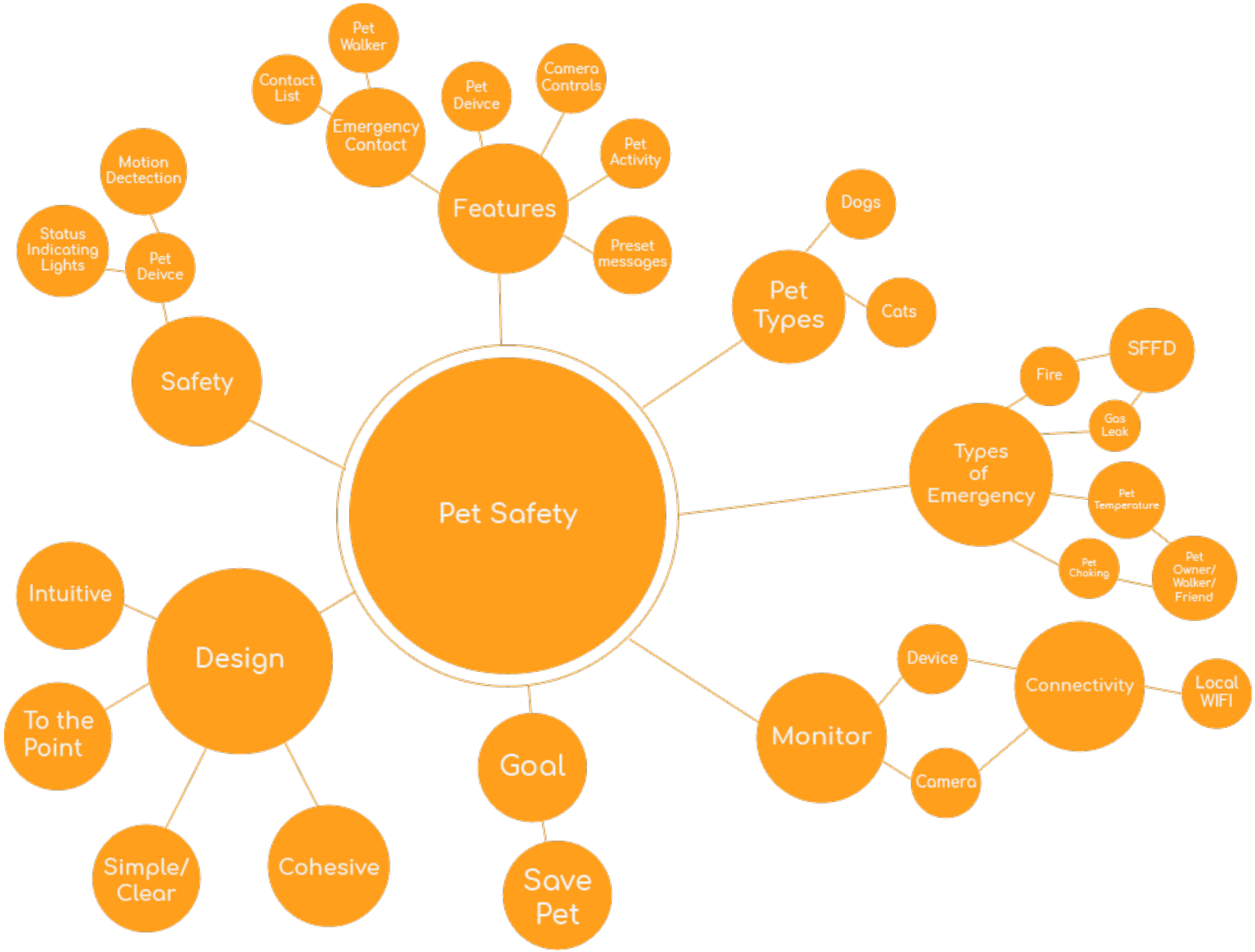
Goal

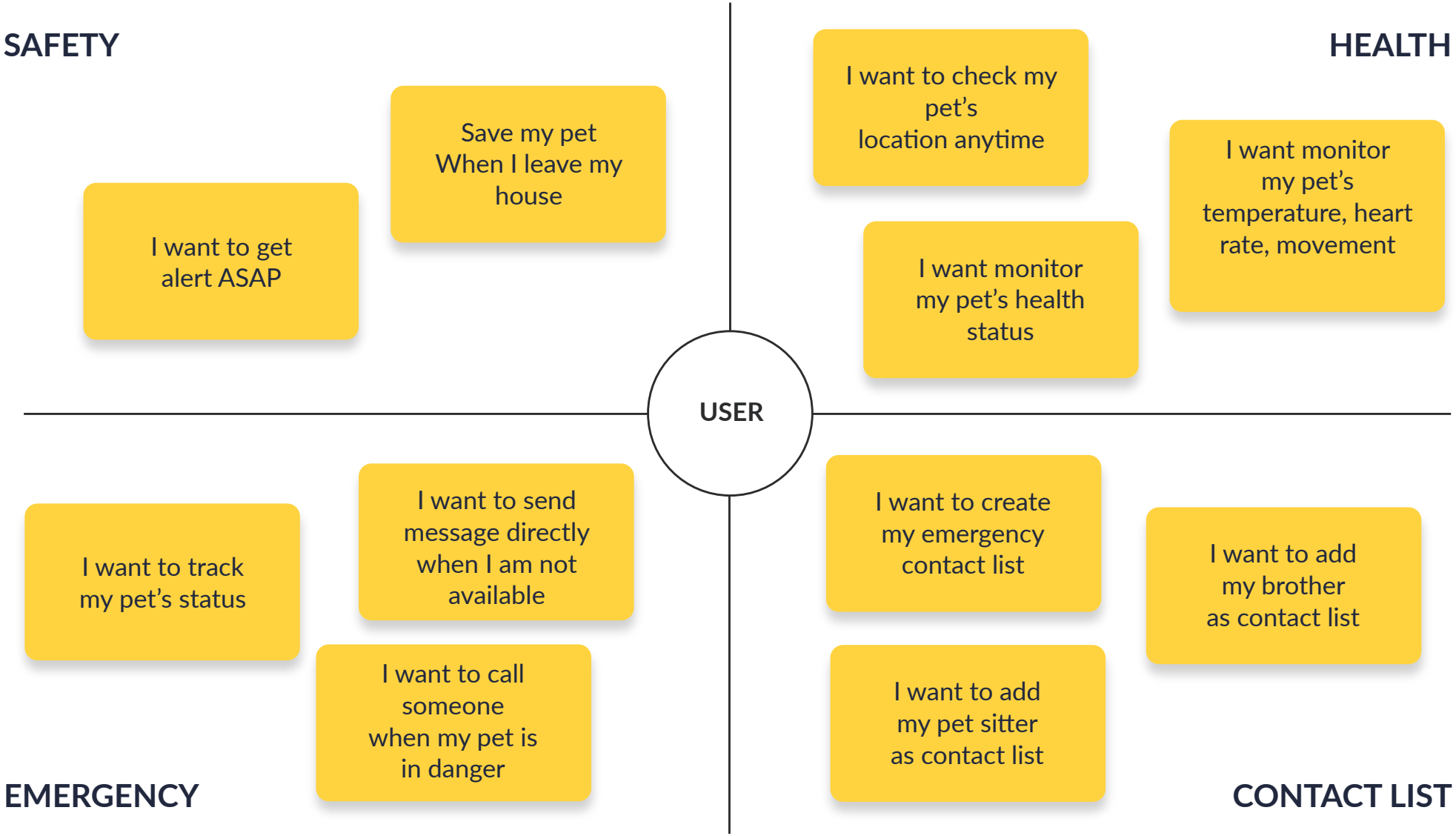
- To keep Bobby safe in any kind of danger situation
- Ask for help if he can't reach bobby in time

Frustration

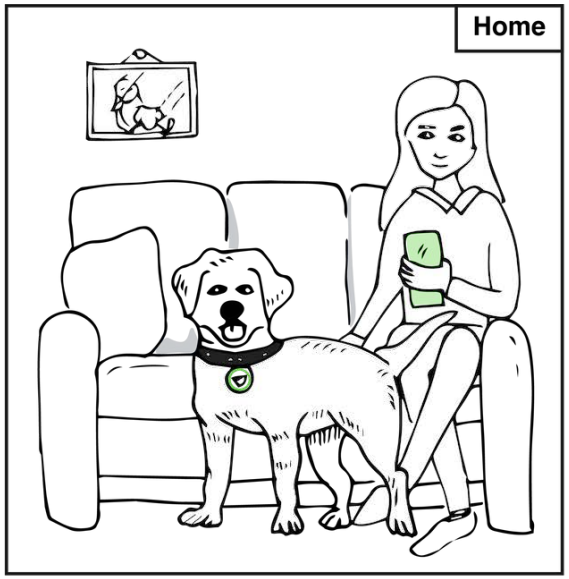
- Bobby is old and can't run very fast for escape
- His busy schedule during weekdays

Based on user surveys and interviews, we could add ideas about what's most important to pet owner.

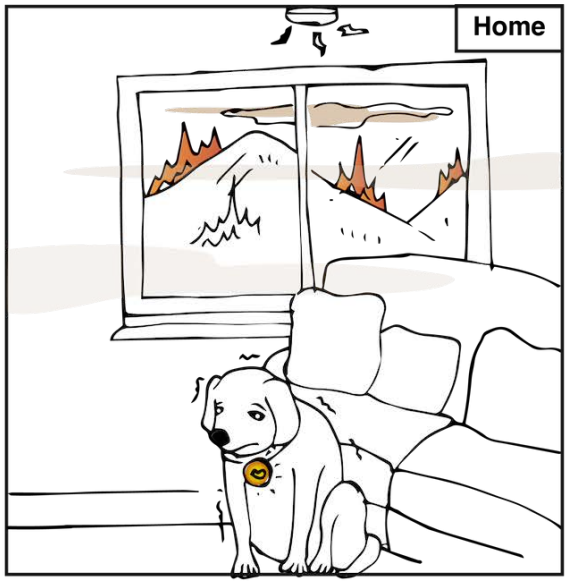



SAFETY
Save my pet When I leave my house
I want to get alert ASAP
HEALTH
I want to check my pet's location anytime
I want monitor my pet's temperature, heart rate, movement
I want monitor my pet's health status
USER
I want to track my pet's status
I want to send message directly when I am not available
I want to call someone when my pet is in danger
EMERGENCY
I want to create my emergency contact list
I want to add my brother as contact list
I want to add my pet sitter as contact list
CONTACT LIST

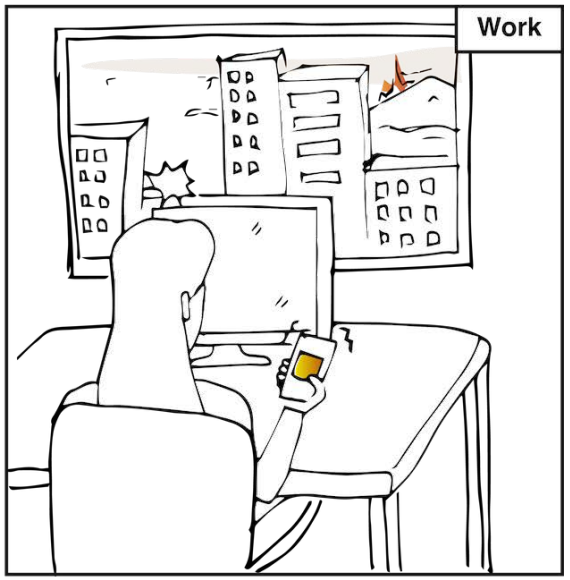
STAGE		AWARENESS	DISCOVERY	EXPERIENCE				FOLLOW UP
ACTIVITIES	Pet Owner	Seeing the news that a pet died because of a house fire	Hear from friends, see online Ads	**Pet owner watches indoor camera to monitor his dog. He is busy all day, he couldn't watch a camera. After work he come home, found his dog is sick. He bring him to hospital if he arrives little late, his dog will be die. Pet owner frustrate and feel guilty.**				- Send a request to rescue the pet - Send an invitation to contact
	Pet	No Activities at this point	No Activities at this point	Stays at home all day. At noon, pet walker stop by to take a dog for a walk. Fell down from table and break a leg. Feels scary and painful.				- Send alert when emergency
TOUCHPOINTS	Pet Owner	Word of mouth, social media	Social media, online/ offline store	Mobile app Camera Smart collar	Mobile app Camera Smart collar	Mobile app SMS Phone call	GPS Camera	Mobile app Camera Phone call SMS Social media, online/ offline store Word of mouth
	Pet	No touchpoints at this time	Smart collar	Danger Detected	Send an alert (by collar)	Hide	Saved	Smart collar detects Health, Safety Real time Everyday
FEELINGS	Pet Owner	Frustrated, Curious	Interested	Afraid or Anxious	Frustrated	Worried	Relieved	Pet owner can check their pet's status in real-time, don't need to worried or nervous
	Pet	Happy	Happy	Frightened	Scared/Painful	Scared/Painful	Relieved, safe	Smart collar can track pet's condition
THOUGHTS	Pet Owner	Pet owner always worry about his pet while he is away from home	Monitoring his pet makes him relief	Get alert from PetGard monitor his pet, he sees high temp in home	want to check and make sure pet is okay	Send message to his pet walker to check on the pet and save him	Hear and watch pet walker save the pet	PetGuard allows monitor my pet and also notified me in case of emergency in real time Relief even away from home
	Pet	Stay at home waiting owner all day	—	Feels hot, started nervous	hiding under the table	painful from fire heat	Relieved see pet walker	if something happen, owner can save me



1. Maria and her dog Jack, they live near mid-Market in an one bedroom apartment.



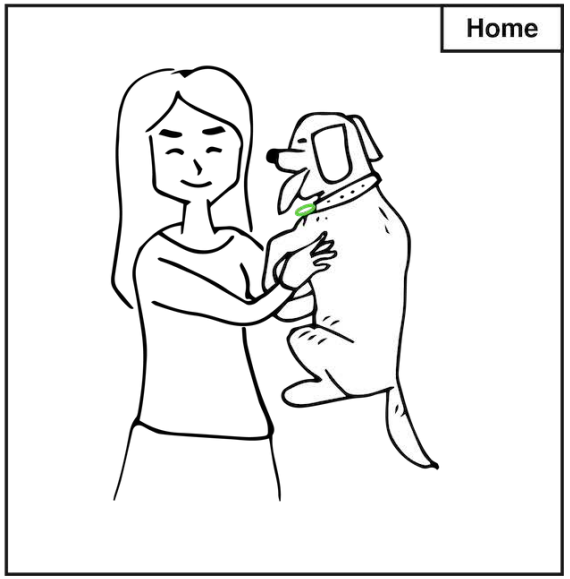
2. Jack is usually at home alone, and a pet walker stops by to walk around her in the afternoon. One day a fire broke out near the house, and Jack began to bark.



3. Maria receives notifications from PetGuard and checks his status in real time with the petguard app through her home camera.

4. Jack's pet walker Sam is also notified in PetGuard and guide to Jack's location through the app.

5. Sam finds Jack and take him outside safely.



6. Maria can check the Jack from time to time through the PetGuard app so she doesn't have to worry about him anymore.

Solutions

1. REAL-TIME PET MONITORING

Pet owner can check the pet's condition such as movements, temperature, heart rate and unusual activities via indoor cameras. Even if user don't have a camera, they still can check their status through smart collar.

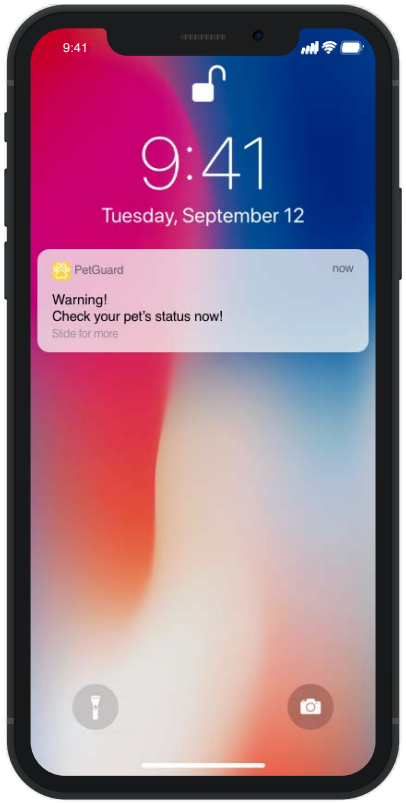
2. PET HEALTH AND SAFETY TRACKING

Pet owner gets notification if the smart collar detect unusual activities on their pet. And also send a message or call to someone from contact list, it could be a pet walker or their friends and family member. In situations where the user cannot be reached, the preset message is sent directly to the contact.

3. PET RESCUE COMMUNITY EXPANSION

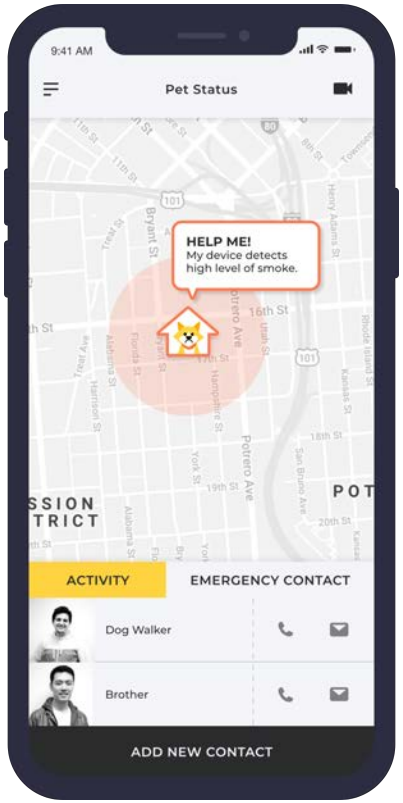
Create new community for pet owners, pet rescue facilities, pet hospitals, family and friends.

NOTIFY



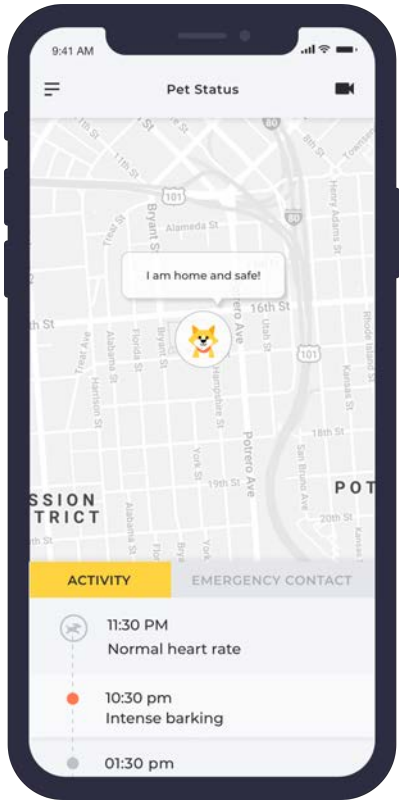
- Pet owner
- Pet sitter
- Favorite contact
- Preset message
(send help directly)

EMERGENCY



- Make a phone call
- Send a message

MONITORING



- Movements
- Body temperature
- Heart rate

No Danger

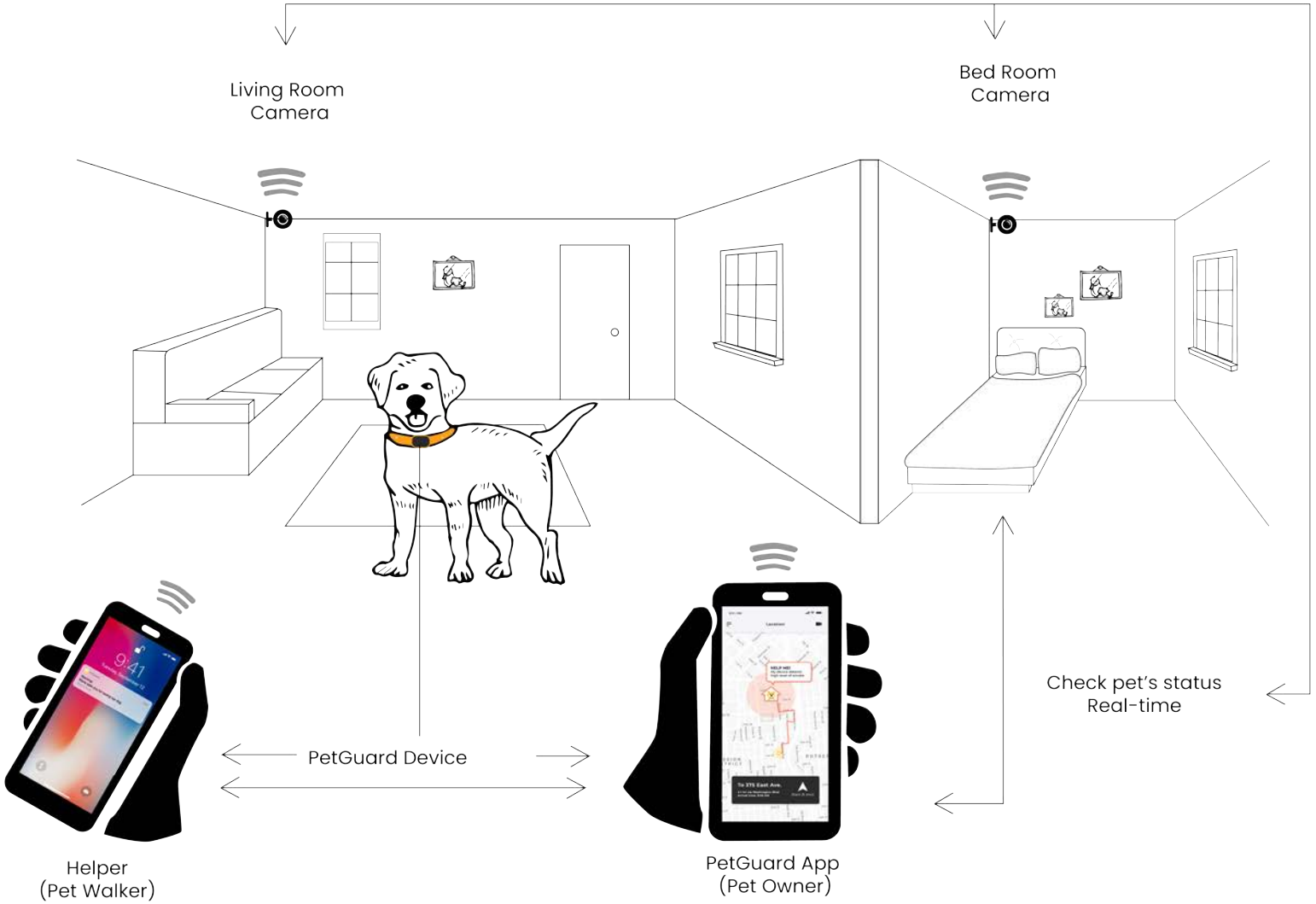
Warning

Danger

Track and Monitor

- Continuous monitoring pet's status and notify to pet owner or contact list who added by owner

Health: Temperature of pet, Blood pressure, heart rate
Activity level: Steps, Respiration
Safety level: Gas leakage, temperature in home


Living Room
Camera
Bed Room
Camera
PetGuard Device
Check pet's status
Real-time
Helper
(Pet Walker)
PetGuard App
(Pet Owner)

STRENGTHS

Never miss the Golden time: Device and mobile app work in real time and alert pet owners in case of emergnecy

Smart iOT device: Work with indoor camera and smart collar

Customized emergency contact list: Let user
add their emergency contact list from family and friends

WEAKNESSES

Not work with every indoor camera

Need to get permission from contact before add them as emergency contact

In case of serious emergency, call 911

OPPORTUNITIES

Area Growth: Expand business model with pet industries such as pet hospital, animal rescue organizations

Working with families: Not only for PetGuard users but also works with their families

THREATS

Competition: Some of competitors sell similar
product, smart collar for pet's condition

Safety Issue: Not for professional rescuers, people can injury if in case of serious emergency

Privacy Issue: Multiple cameras work with others can create privacy issues

PETGUARD - DESIGN

Sketches
Sitemap
User Story A
User Flow A
User Story B
User Flow B
Low-Fidelity Wireframe
User Testing
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UI Design - Pet Owner
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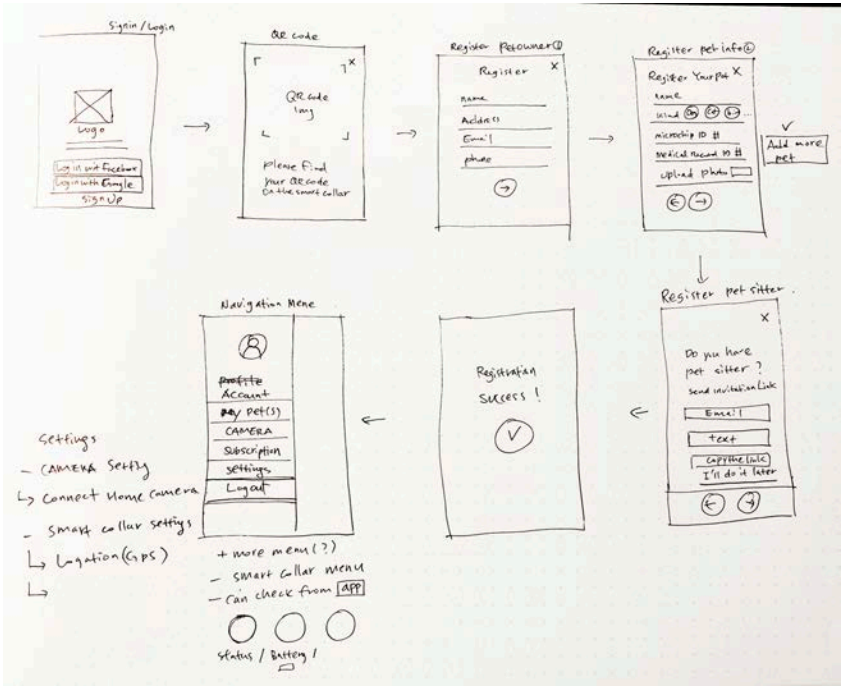
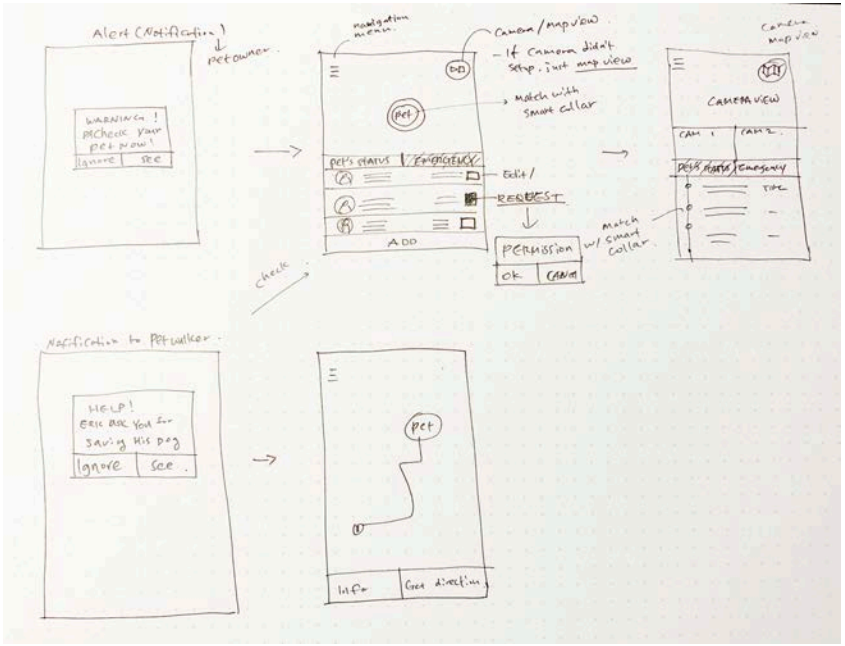
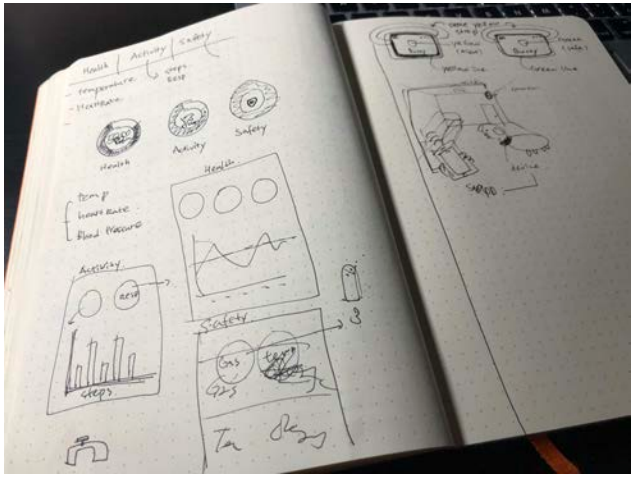
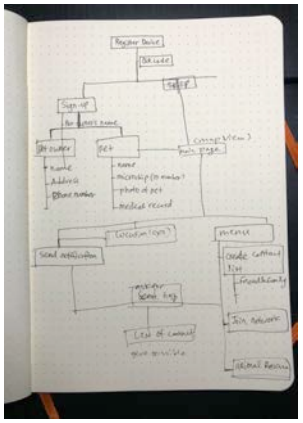
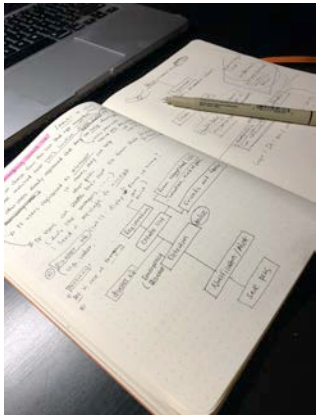

Signin / Login
Logo
Log in with Facebook
Log in with Google
Sign Up
QR code
QR code Img
Please find your QR code on the smart collar
Register Petowner
Register
name
Address
Email
phone
Register pet info
Register Your Pet
name
microchip ID #
medical record ID #
upload photo
Add more pet
Register pet sitter
Do you have pet sitter ?
send invitation Link
Email
text
copy the link
I'll do it later
Registration Success !
Navigation Menu
Account
pay pet(s)
CAMERA
Subscription
settings
Logout
Settings
– CAMERA Setting
↳ Connect Home Camera
– Smart collar settings
↳ Logation (GPS)
+ more menu (?)
– smart collar menu
– can check from app
Status / Battery /

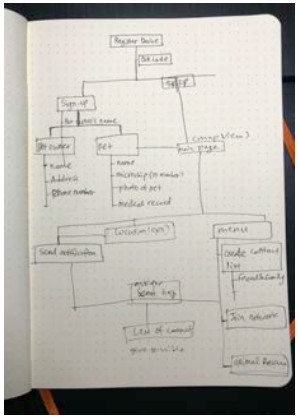

Alert (Notification)
petowner
WARNING ! Pet check your pet now !
Ignore
see
navigation menu
Camera / map view
– If Camera didn't setup, just map view
match with smart collar
pet
pet's status
EMERGENCY
Edit /
REQUEST
ADD
PERMISSION
OK
CANCEL
match w/ smart collar
Camera map view
CAMERA VIEW
CAM 1
CAM 2
Emergency
check
Notification to Petwalker
HELP ! Eric ask you for saving his pog
Ignore
see
pet
Info
Get direction

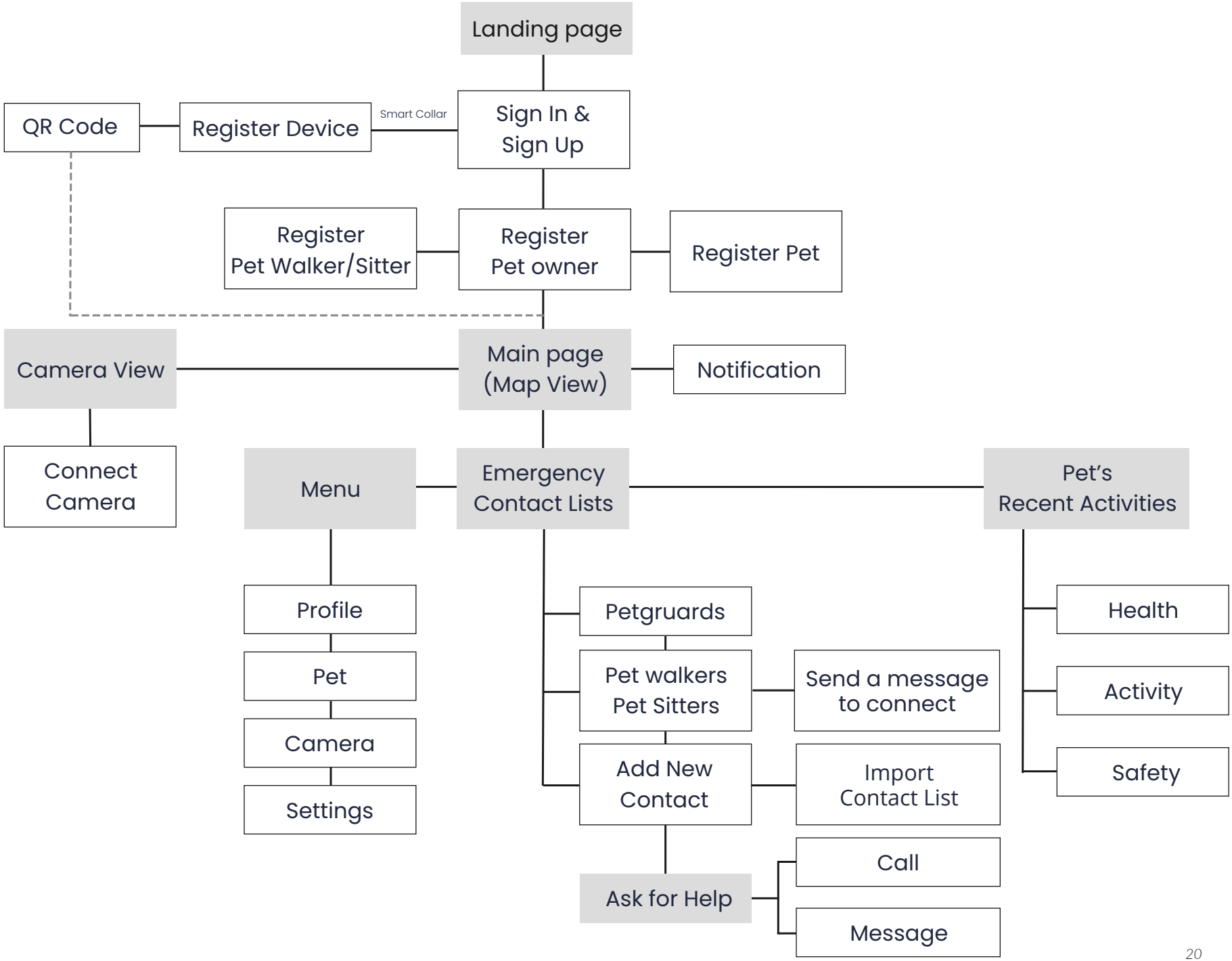

Health
Activity
Safety
Health
Activity
Safety
Health
Activity
Safety
steps

Disaster or Emergency
Detection
Register


Register Device
QR code
Sign up
Pet owner
Pet
Send notification
Menu
Create Contact List
Join network
Send tag
List of contact
Animal Rescue



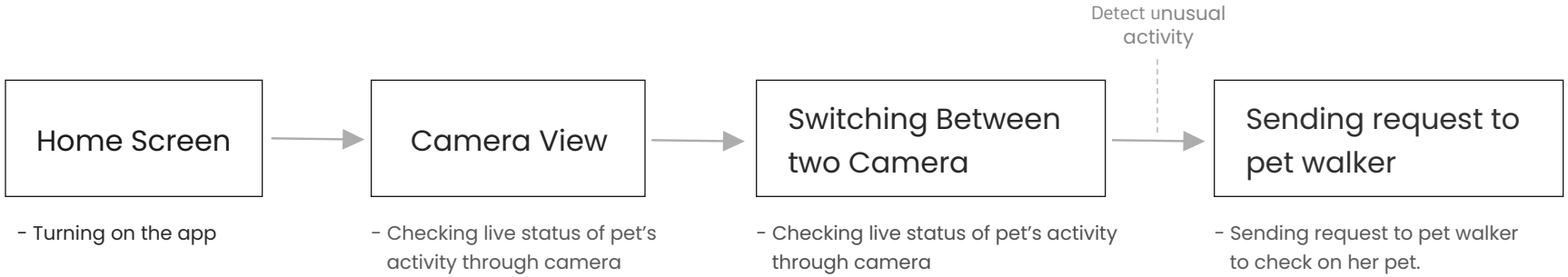

Register Device
QR code
Sign up
Pet owner
Pet
Send notification
Menu
Create Contact List
Join network
Send tag
List of contact
Animal Rescue


Landing page
Sign In & Sign Up
Smart Collar
Register Device
QR Code
Register Pet Walker/Sitter
Register Pet owner
Register Pet
Camera View
Main page (Map View)
Notification
Connect Camera
Menu
Emergency Contact Lists
Pet's Recent Activities
Profile
Pet
Camera
Settings
Petgruards
Pet walkers Pet Sitters
Send a message to connect
Add New Contact
Import Contact List
Ask for Help
Call
Message
Health
Activity
Safety

User story A – Maria (Pet owner) & Jack(Pet)

- Task: Checking multiple cameras to monitor pet's activity

- Goal: Maria can check her pet anytime, anywhere

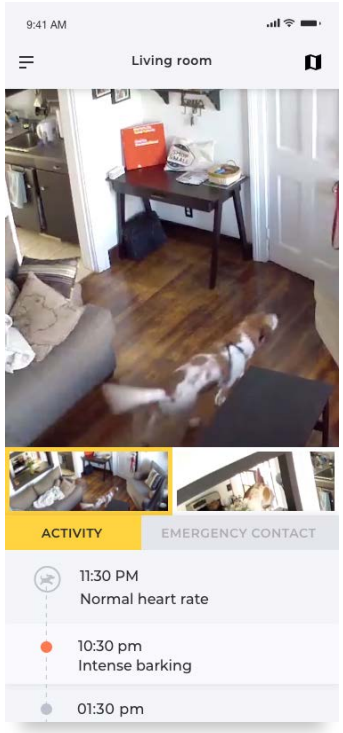


When Maria got the app she also installed two cameras to keep a track on her dog one for the living room and one for the kitchen. She felt the feature where you could give the custom name to cameras was cool. She named her cameras as LIVING RM CAMERA and KITCHEN CAMERA. After that one day she was traveling out with her friends and she wanted to check her dog's activity. She opened the app and she saw the map denoting the camera name because the collar sensor locates the nearest camera to the collar. Then she swiped and saw the pet was playing in the bedroom.

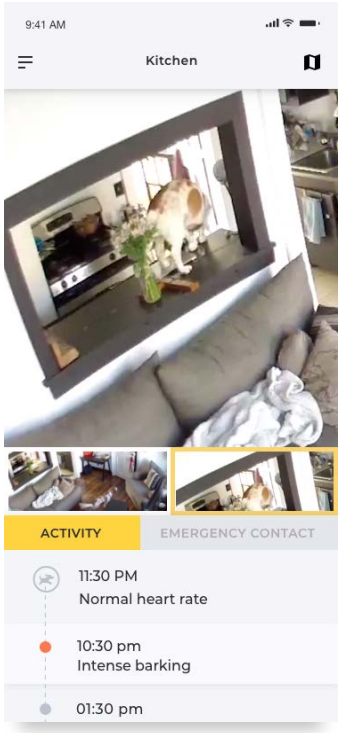
User story A – Maria (Pet owner) & Jack(Pet)

- **Task:** Checking multiple cameras to monitor pet's activity
- **Goal:** Maria can check her pet anytime, anywhere

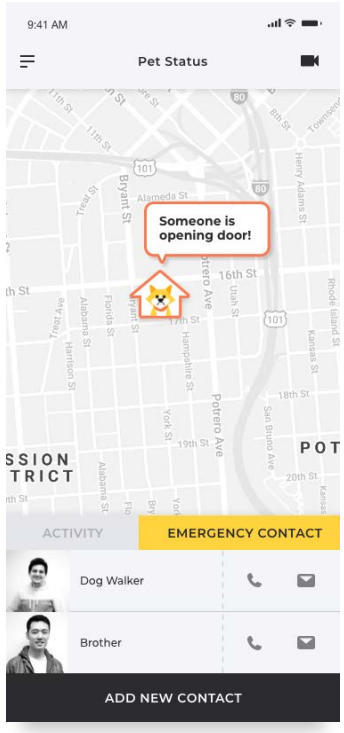
Camera View: Living rm



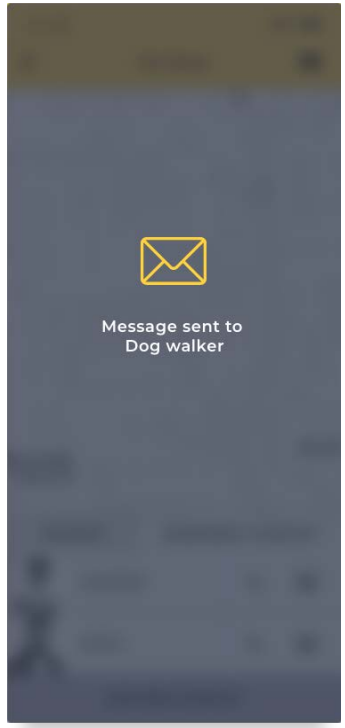
Camera View: Kitchen



Emergency Contact



Send message to pet walker

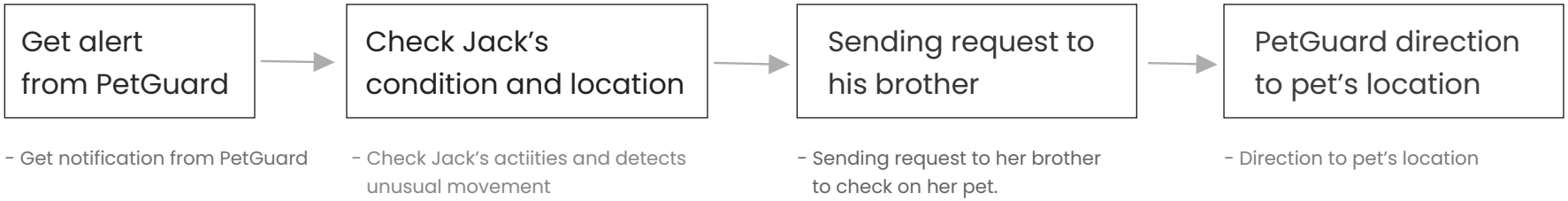


Link to Prototype : Registration to check pet's status

User story B – Maria (Pet owner) & Bobby (Emergency contact)

- Task: Get the alert from the PetGuard and send a message to emergency contact

- Goal: Save her dog from the danger

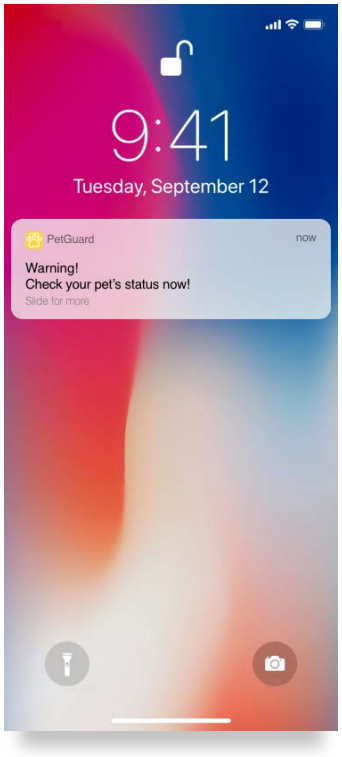


Maria was at work and had a product launch presentation to finish which was due the next day. She was in office but checked on her dog every 1 hour. She was looking at the camera and made sure that Jack was doing okay and kept checking his activity history for his regular updates. At around 2:30 pm she looked at the activity log on the app and noticed Jack was still for quite a while. She ignored and thought that he might be sleeping. After 1 more hour when she checked she didn't notice any movement and checked the camera and was shocked to see that Jack hasn't moved even then. She was a little concerned now and quickly before going to another meeting quick texted her mother from the application with a preset message saying "Please check! Attention needed". As soon as she sent that her brother who lived a few blocks away rushed to Maria's place and checked on jack and noticed he had a bit of temperature rise and took him to the vet.

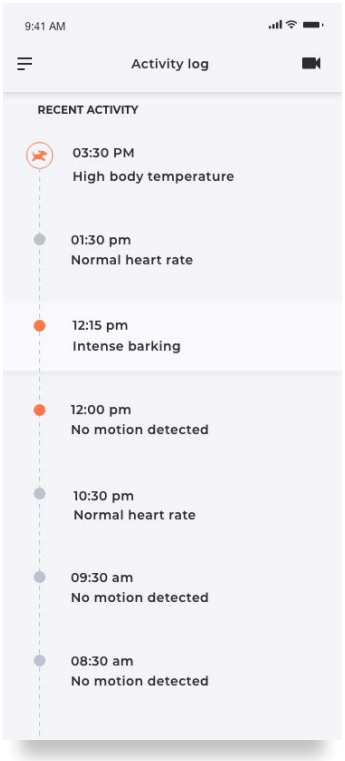
User story B – Maria (Pet owner) & Bobby (Emergency contact)

- **Task :** Get the alert from the PetGuard and send a message to emergency contact
- **Goal:** Save her dog from the danger

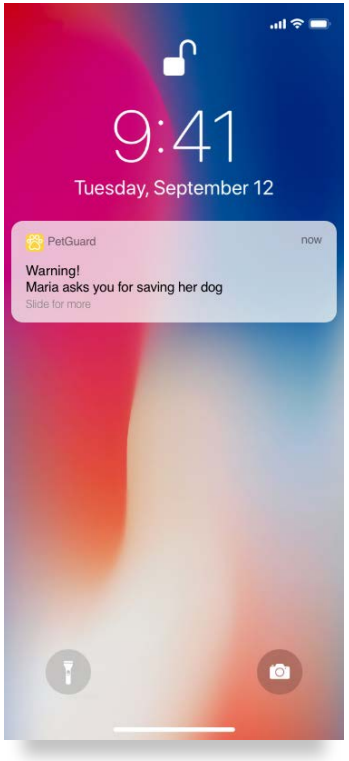
Notify to pet owner



Check pet's activities



Notify to Emerency contact

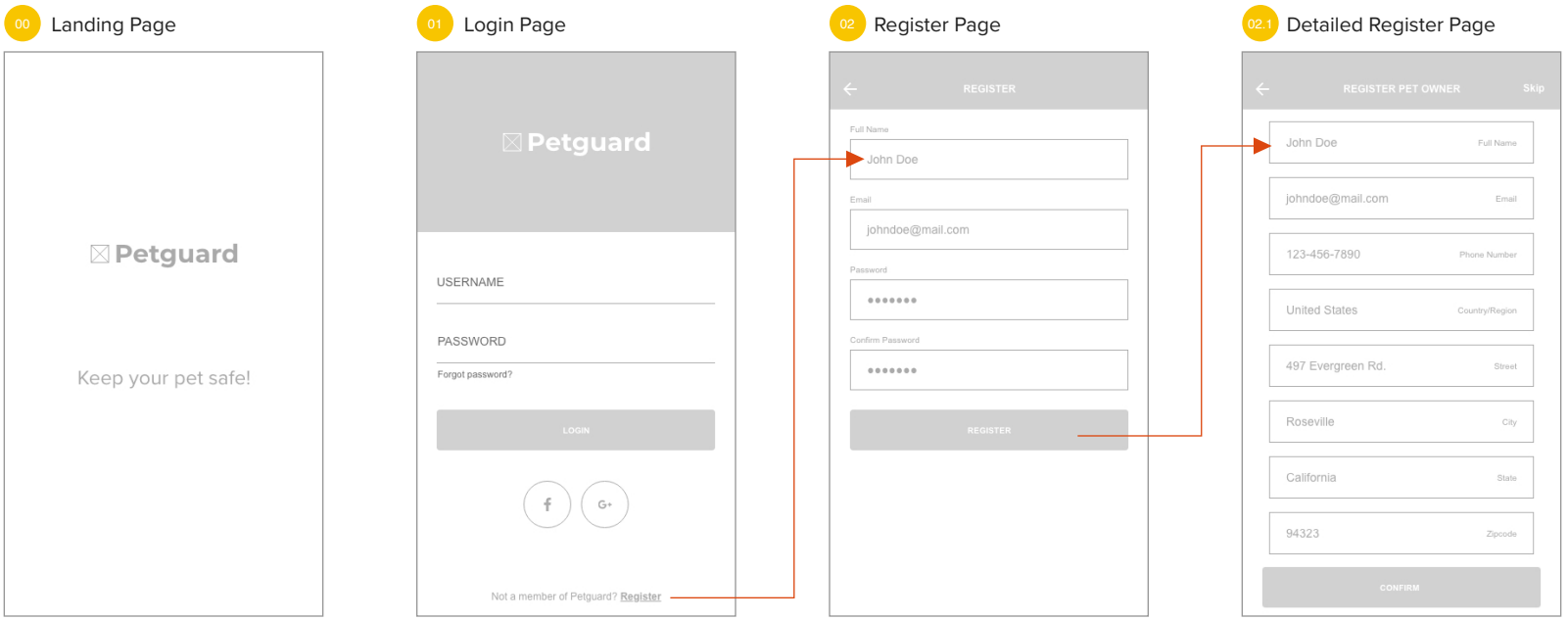


Direction to pet's location

Link to Prototype : Pet walker get notification

Register Pet owner

Splash pages allow users guide app at first time and gives general idea of app
Easy setup and register with social media and email address
More detailed information will be optional and can be added later in the account menu

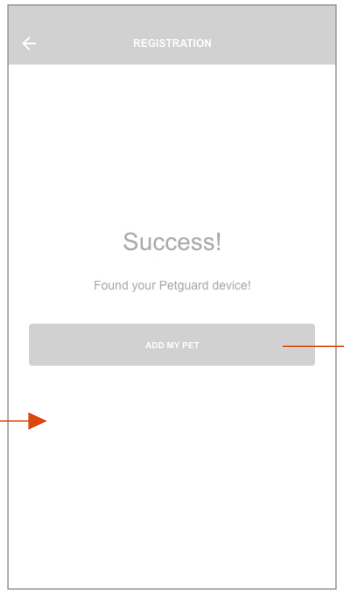


Register Device and Pet(s)

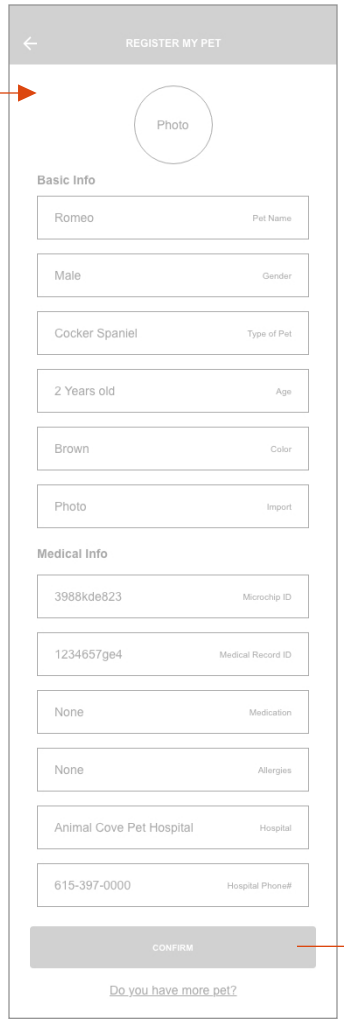
Smart collar can be added via bluetooth or scan a QR code on the back of device
Register pet's information that general and medical information
Register pet walker or sitter if owner has and send an invitation to them

02.2 QR Code

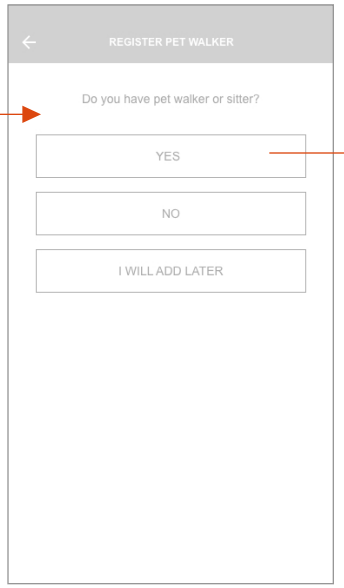
02.3 Device Regiter Success



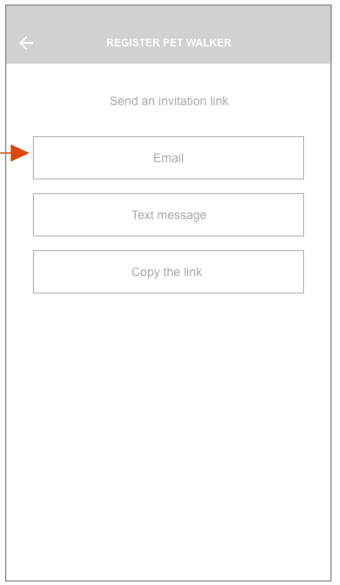
02.4 Register Pet Information



02.5 Register Pet Walker

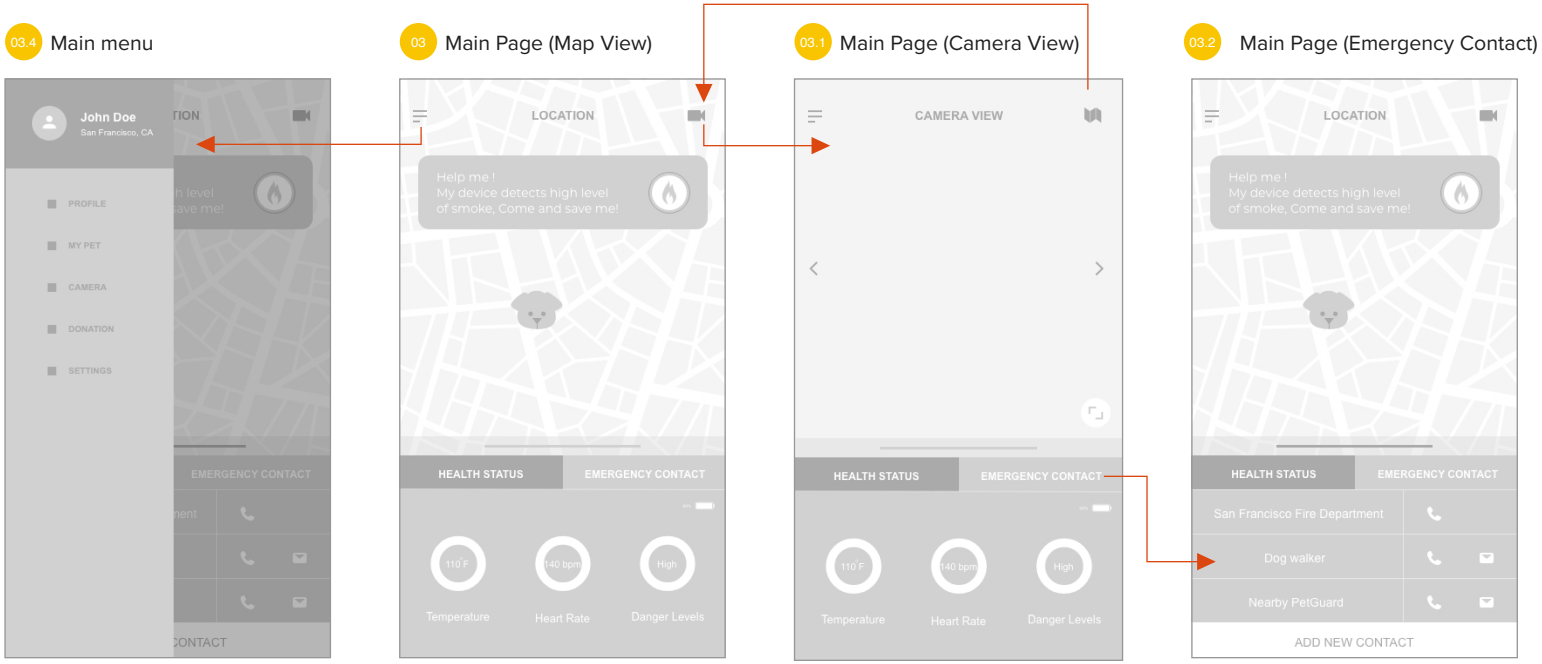


02.6 Send Invitation to Pet Walker



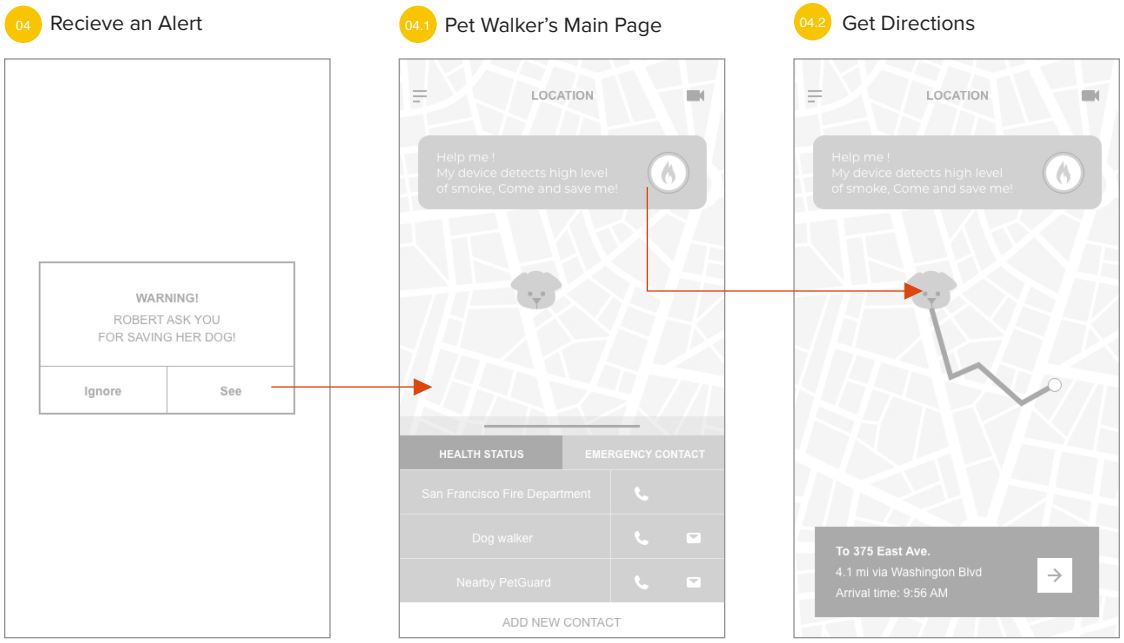
Main page for Pet owner

Pet owner can check pet's status via connected indoor cameras
Map view and camera view can be switch screen
Pet owner can send an message or call to emergncy contct on the list



Main page for Pet walker or Emergency contact

Pet walker or emergency contact get notification
Pet walker can check pet's status
App guides to navigate to pet's location
Pet owner can get a status real time that pet walker on his way in the map view



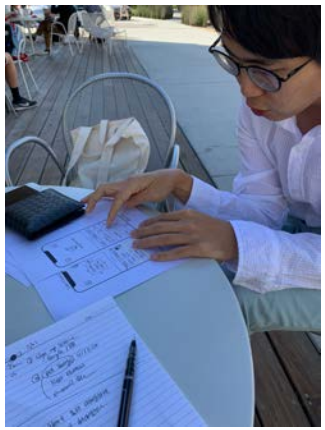
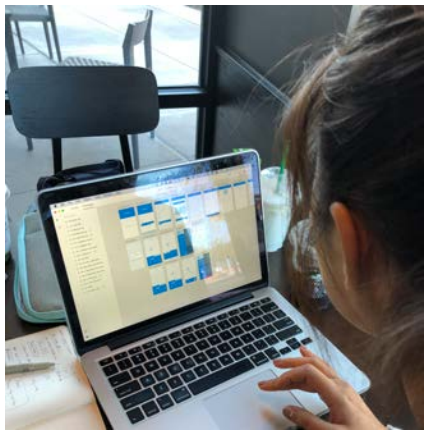
User Testing Overview

Three primary tasks

1. Sign up and register the smart collar for the app " PetGuard"
2. Get alert from her dog and send "Ask for help" to Pet walker
3. Get the alert from the Pet walker and she goes to rescue her dog

Key Feedbacks and Outcome

1. Change the homescreen to show "Details" page first and show relevant icons
2. Add the detailed health status and replace text with icons
3. Clarify main home screen to check pet's condition instantly

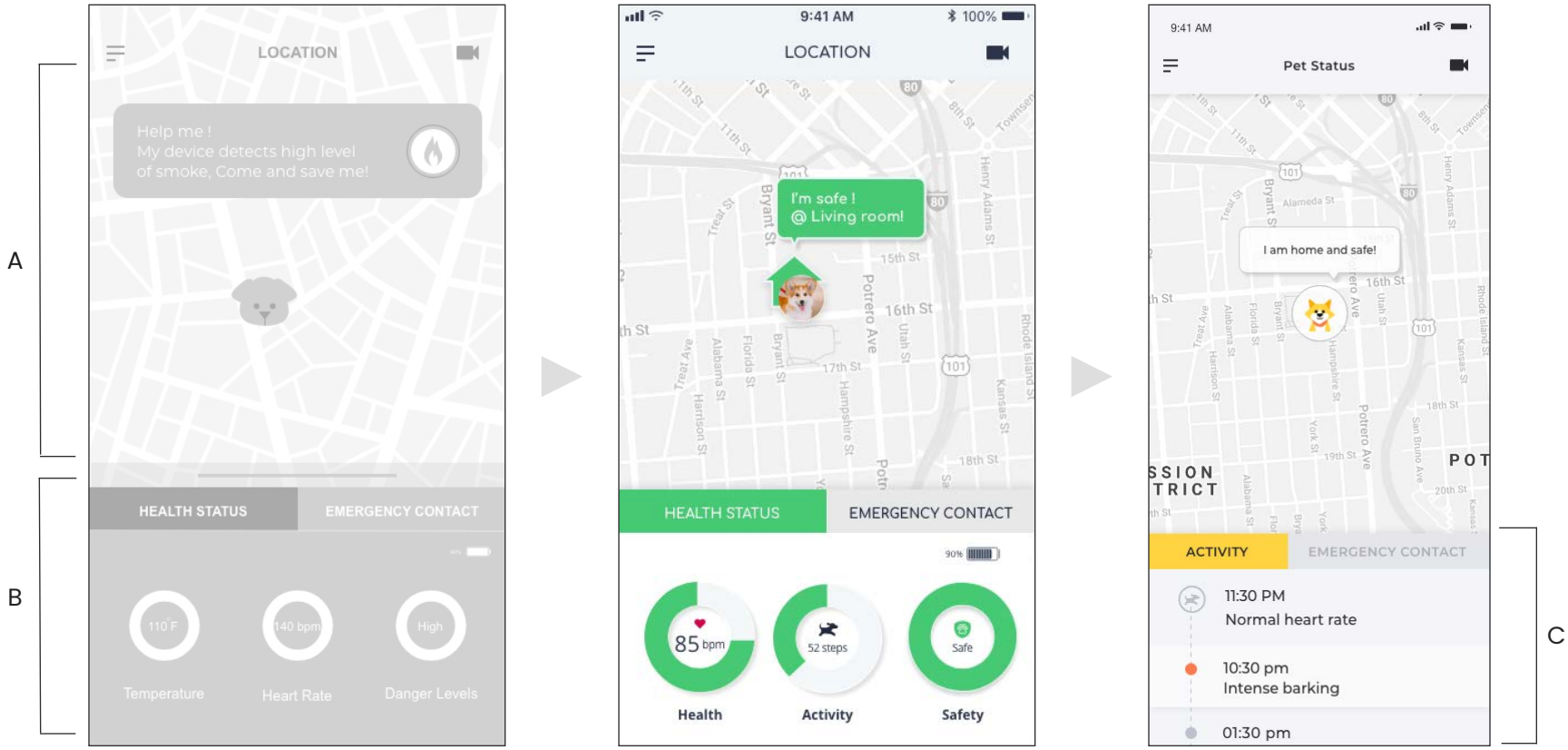



Prototype Link for User testing

Before

Change after user testing

Final design



A. Initial status of pet:

Too much wording, need to know pet's status intuitively
Give different color to see pet's condition right away
User can add pet's photo

B. Information:

Charts were difficult to read data and user didn't want to see details of health conditions
Safety menu not necessary
Change the menus to activities and emergency contact

C.Visual Design:

App is for pet's safety, color need to clean and focus on pet's initial status
User can notice pet's status by color system

Before

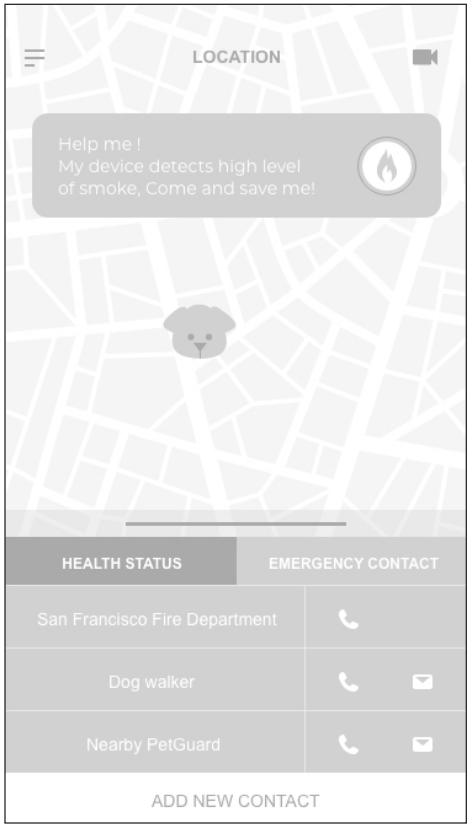
Change after user testing

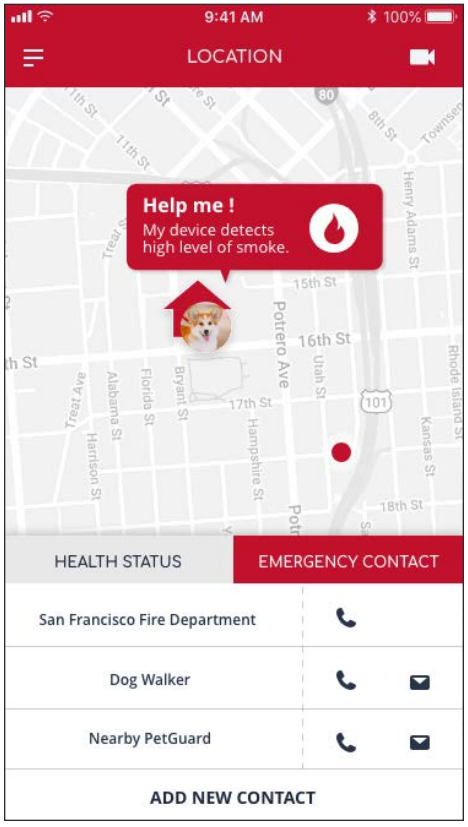
Final design

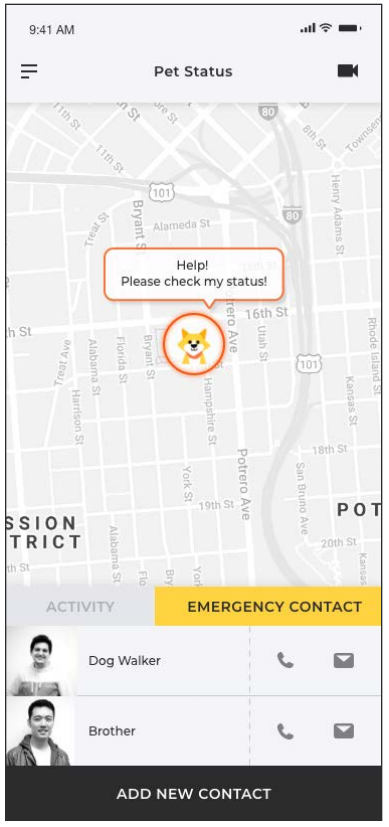
A

B

C







A. Emergency situation:

Use too much of color
Need to focus on pet's status

B. Emergency contact:

Deleting SFSD contact and
nearby users on the list
User want to add their family
and friend as an emergency contact

C. Visual design:

Simplify over screen
using neutral color
Main color for
yellow(warning), orange(alert),
gray(normal)

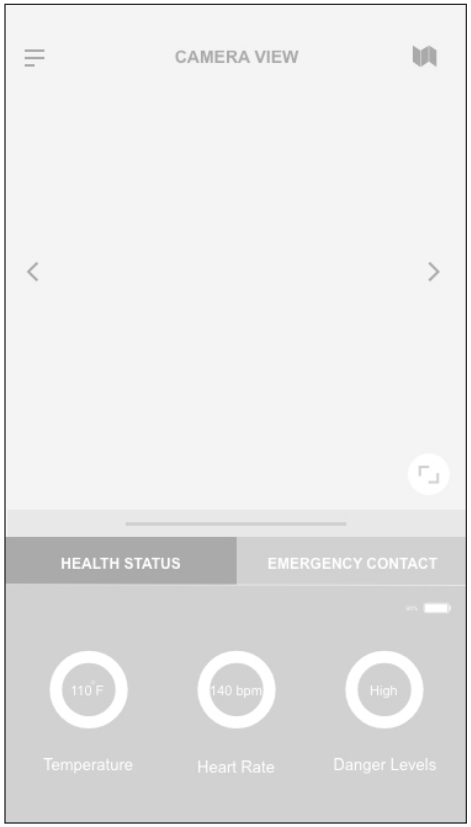
Before

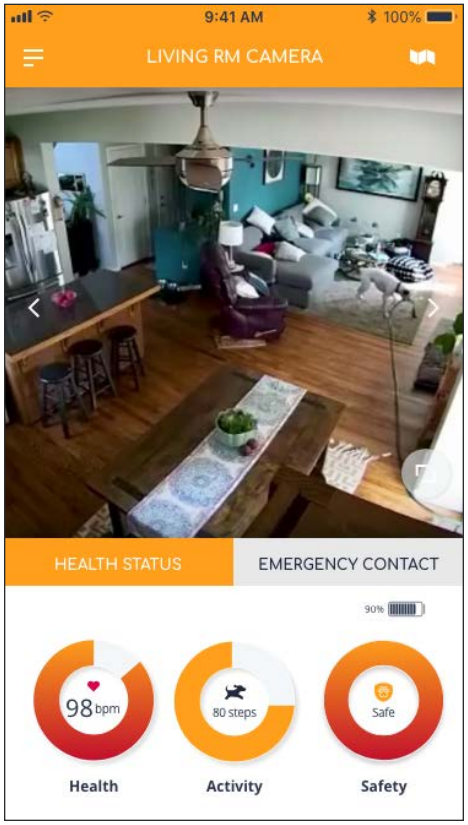
Change after user testing

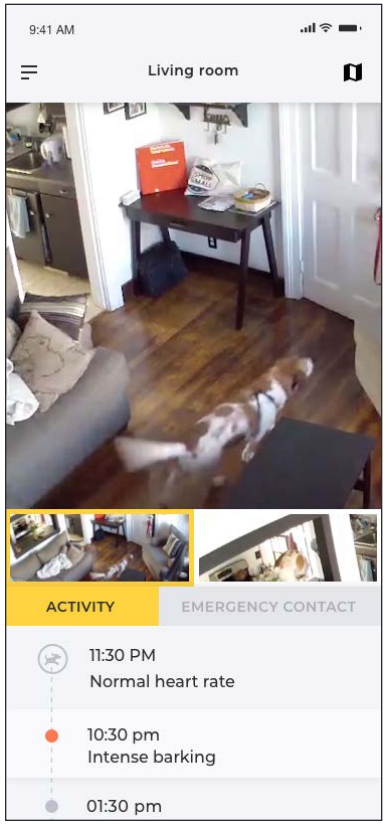
Final design

A

B







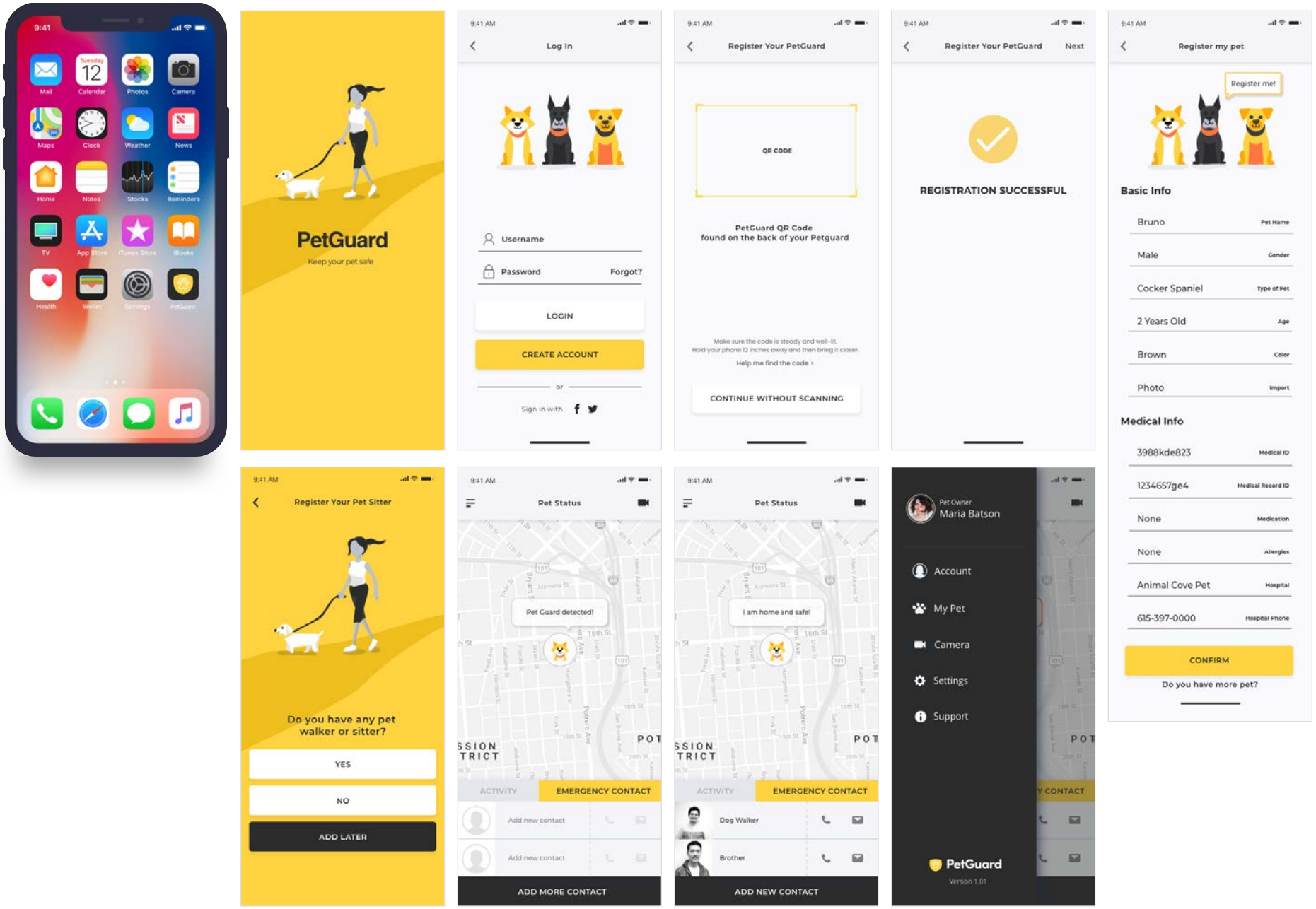
A. Camera view:

Devided camera view for multiple camera uses
Easy to switch camera view
Full view can be difficult to change the view

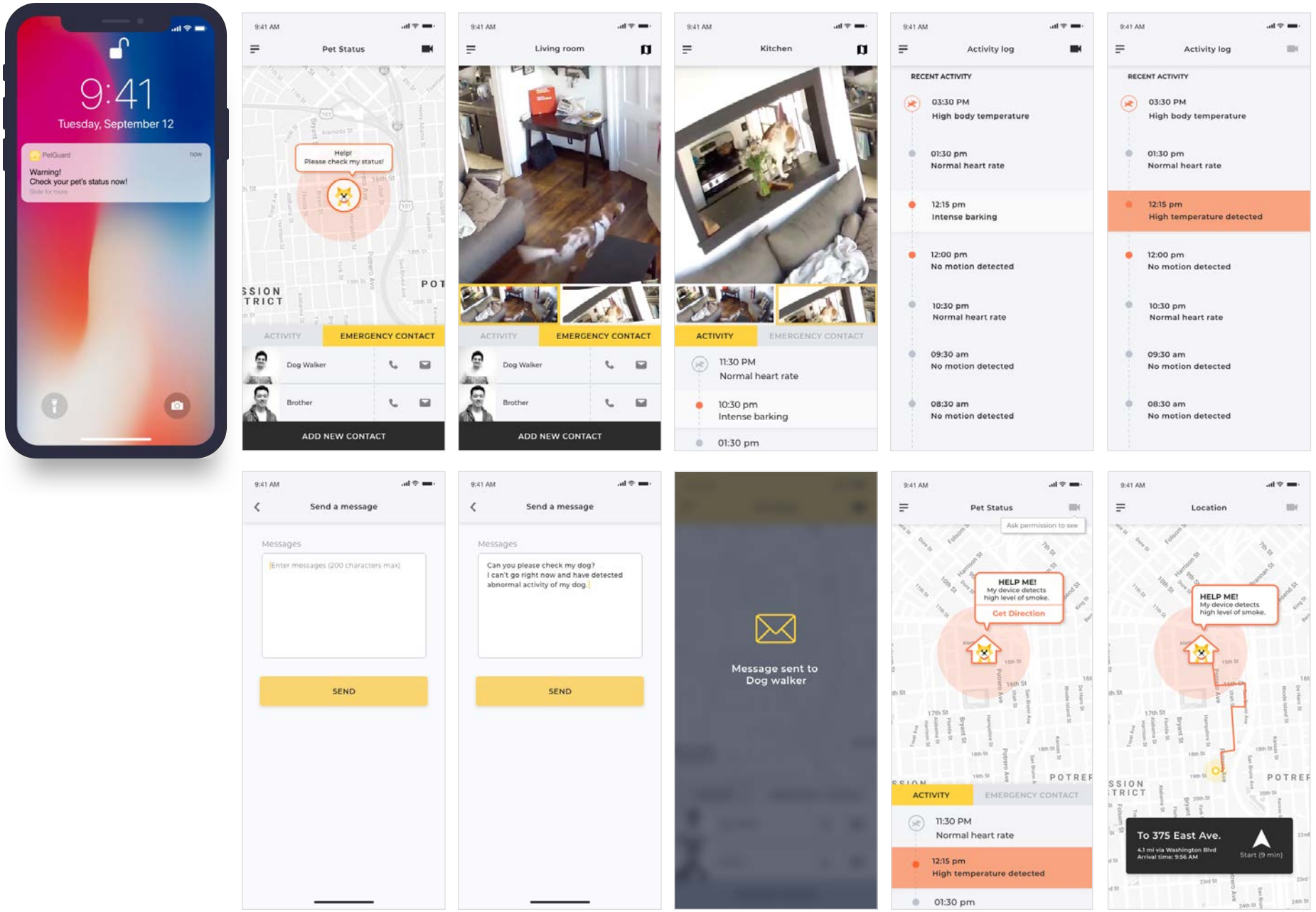
B. Initial camera view:

Initial camera view for real-time response

Registration of pet, pet owner, emergency contact



Pet owner/ Pet walker



PetGuard

Final logo

PetGuard

PetGuard

Alternative logo

Logo Horizontal / Clear space

Logo vertical / Clear space

Comfortaa

Header, Title, Logo

Bold

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890

Regular

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890

Open Sans

Subtitle, Body text, Button text, Description

Bold

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890

Regular

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890

Light

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890

CMYK 11, 9, 0, 76
RGB 33, 40, 62
HEX #2B2C2D

CMYK 0, 38, 89, 0
RGB 255, 159, 28
HEX #FAD570

CMYK 51, 0, 33, 21
RGB 71, 201, 116
HEX #47C974

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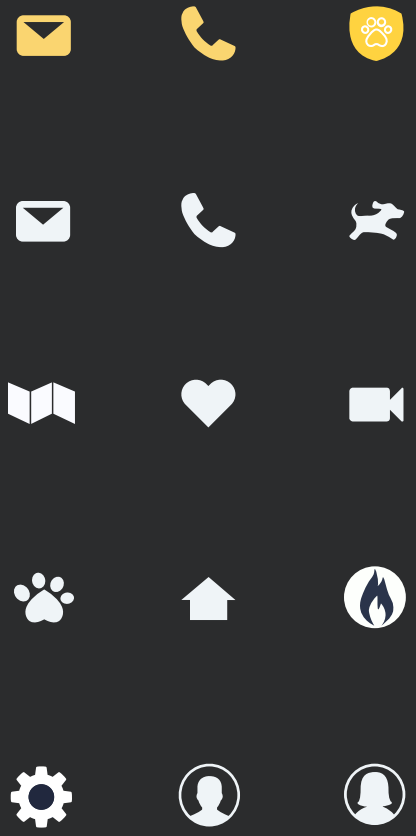
HEX #FFFFFF

CMYK 0, 38, 89, 0
RGB 255, 159, 28
HEX #FA9070



Typography & Color Theme

Iconset

“Things I’ve learned in the team project and next step”

Through this team project, I’ve learned a lot in various ways. It was challenging to unite the four opinions into one design. However, from the research to the final design, the app was almost completed in a very short amount of time. It was challenging but also exciting and good exercise that listen to others’ opinions. For the project, I can develop more on in details such as how to connect with each home cameras and how to increase awareness about pet’s safety.

PETGUARD

Citation

Articles

De, Gruyter "What happens to pets after a natural disaster?" phys.org, SEPTEMBER 12, 2017

https://phys.org/news/2017-09-pets-natural-disaster.html#jCp

redcross.org, Pet Disaster Preparedness & Recovery

https://www.redcross.org/get-help/how-to-prepare-for-emergencies/pet-disaster-preparedness.html

ready.org

https://www.ready.gov/pets

Images

Charles on Unsplash

https://unsplash.com/photos/Mv9hjnEUHR4

Matt Nelson on Unsplash

https://unsplash.com/photos/aI3EBLvcyu4