COMP 1011 UX/UI Development
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Final Project

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COZY

INTRODUCTION

Target Customers

Building Managers and HVAC installers licensing the app.

Product / Service

COZY is a mobile app for office workers that is designed to eliminate employee discomfort and increase work productivity by offering a simple and interactive UI that is used to adjust workplace temperatures.

It will give employees the ability to monitor current indoor air quality in their thermal zone in the building, and then interactively change temperature, lighting, and air velocity to match their comfort levels. Not only the managers will be able to see clear, detailed data analysis of these changes, the building HVAC control system will also process these data points in a mechanical systems feedback loop.

App Features

- Employees will be able to view current temperature and air velocity set points and set their own default levels in their workplace. This will reduce the amount of time to adjust comfort levels at the beginning of the workday.
- COZY offers a simplified user interface that gives ease of use for users of all skill levels.
- COZY offers support in several languages: English, Chinese, Hindi, Arabic, Spanish, French, Japanese, Korean, Italian, Russian, and German. Each employee can choose their language of preference when they run the app.
- COZY can sync with employee work hours to adjust temperature levels back to the default levels to save on costs when the employee ends their work day.
- COZY can predict the comfort of new employees in various office locations by comparing comfort levels with the demographic information of existing employees.
- COZY is designed to have a minimal time impact on employees while providing a large energy savings to employers.

End Benefits

Employees will commit 44% less errors and will be more productive when the temperature is set at a comfortable level (77 degrees) and indoor air quality is within residents comfort levels. The increase in performance will financially benefit employers by 10% per hour, per employee.

These statistics were gathered from the Cornell University research study by Professor Alan Hedge (June 2004) regarding the effects of thermostat changes in an insurance office.

Link to study: http://ergo.human.cornell.edu/Conferences/EECE_IEQ%20and%20Productivity_ABBR.pdf

BUSINESS MODEL

COZY

Designed for:	Designed by:	Date:	Version:
Building Managers & HVAC installers.	Quinn, Soheil, Wei-Ting	Sept 16, 2017	1.0

Key Partners

- Small and large businesses in an office setting
- Freelance developers
- App makers
- Investors

Key Activities

- App development
- App design
- User testing & feedback
- Publish to app stores
- Download app for futher testing
- Advertisement of app

Key Resources

- Data analytics
- App
- People (developers, programmers, designers, managers)

Value Propositions

Comfort Map is a mobile app for office workers that is designed to eliminate employee discomfort and increase work productivity by offering a simple and interactive UI that is used to adjust workplace temperatures. It will give employees the ability to monitor current indoor air quality in their thermal zone in the building and then interactively change temperature, lighting and air velocity to match their comfort levels. Not only the managers will be able to see a map outline of the results, the building HVAC control system will also process these data points in mechanical systems feedback loop.

Employees will commit 44% less errors and will be more productive when the temperature is set at a comfortable level (77 degrees) and indoor air quality is within residents comfort levels. The increase in performance will financially benefit employers by 10% per hour, per employee backed by statistics in HVAC research articles.

Customer Relationships

- 24h support
- Online community
- Commitment to quality
- Simple, interactive UI for all skill levels
- Communicates employee needs to managers in real time

Channels

- App stores (for iPhones & Android phones)
- Web platform
- Online marketing (Facebook, Twitter, LinkedIn, Google Adwords, Bing, Yahoo!)

Customer Segments

- Building Managers that purchase the product
- HVAC installers that license the app
- Businesses that want to increase employee performance, productivity, and decrease errors

Users:

- Employees

Cost Structure

- IT development
- Sales and advertisement
- Licensing fees
- Legal fees
- Servers (hosting)
- Salaries
- Infrastructure costs
- Technical costs (e.g. software used)
- App store fees
- User testing

Revenue Streams

- Licensing directly to building managers
- Licensing through HVAC installers on a commission basis
- Premium support tiers
- Kickbacks on HVAC installations through partnerships with ComfortMap Certified Installers
- Data can be sold to hvac design consultants, who can use these data in comissioning and control tests for another revenue stream

USER INTERVIEWS - Maria Khan

Maria Khan

Q1. Do you use any smartphone applications as a part of your job or at home in your free time?

Maria: Yes, apart from general social media apps (Instagram, Quora), we use Event Viewer and Stack Configurator to monitor and control multiple systems remotely in building management.

Q2. What kind of office space do you operate in?

Maria: Multi-purpose buildings, hospitals, schools.

Q3. What is the gender demographics of the occupants? (Female to Male ratio)

Maria: 50 - 50

Q4. What is the average age of the occupants in the building?

Maria: 25 yrs - 50 yrs

Q5. What does a day in your building look like?

Maria: Checking alarms, receive tenant calls, grabbing coffee, walking around building, socializing, checking inventories (for controllers, ...), learning processes.

Q6. How often do you communicate with the occupants? And what means do you use to do that (email, phone, ...)?

Maria: Every day. Phone for urgent matters. Emails for less urgent matters.

Q7. What is the type of HVAC system installed in this building?

Maria: A combination of everything.

Q8. Do occupants have control over building systems set points (temperature, humidity, lighting,..). If so which items can they change from the list below?

Maria: Only Lighting.

Q9. Do you ever get any complaints from the occupants regarding the HVAC systems in general? If so what is the main issues coming up?

Maria: General heating cooling and if a pipe breaks or events of these areas.

Q10. How often do occupants change the set points? And how fast does the building system respond to it?

Maria: They have no control, it is read only.

Q11. Any further comments?

Maria: Be careful of the age difference and different needs of various generations (millennials vs baby boomers).

USER INTERVIEWS - Katie Stenning

Katie Stenning

Q1. Do you use any smartphone applications as a part of your job or at home in your free time?

Katie: Yes.

Q2. What kind of office space do you operate in?

Katie: Other (please specify): Marketing.

Q3. What is the gender demographics of the occupants? (Female to Male ratio)

Katie: 50 - 50

Q4. What is the average age of the occupants in the building?

Katie: ~ 30 yrs

Q5. What does a day in your building look like?

Katie: Working hours are from 8am to 4pm; primarily desk work.

Q6. How often do you communicate with the occupants? And what means do you use to do that (email, phone, ...)?

Katie: Always through email, somewhat often.

Q7. What is the type of HVAC system installed in this building?

Katie: Furnace - Fan.

Q8. Do occupants have control over building systems set points (temperature, humidity, lighting,..). If so which items can they change from the list below?

Katie: Temperature, Lighting, Air Velocity.

Q9. Do you ever get any complaints from the occupants regarding the HVAC systems in general? If so what is the main issues coming up?

Katie: The systems are too sensitive - too hot or too cold.

Q10. How often do occupants change the set points? And how fast does the building system respond to it?

Katie: Mostly seasonal, and the system responds quite quickly.

Q11. Any further comments?

Katie: N/A

USER INTERVIEWS - Dorin Che

Dorin Che

Q1. Do you use any smartphone applications as a part of your job or at home in your free time?

Dorin: Yes.

Q2. What kind of office space do you operate in?

Dorin: Residential building.

Q3. What is the gender demographics of the occupants? (Female to Male ratio)

Dorin: 50 - 50

Q4. What is the average age of the occupants in the building?

Dorin: 1yrs - 70+ yrs

Q5. What does a day in your building look like?

Dorin: Collecting overdue rent, complaints, cleaning, regular maintenance.

Q6. How often do you communicate with the occupants? And what means do you use to do that (email, phone, ...)?

Dorin: Everyday.

Q7. What is the type of HVAC system installed in this building?

Dorin: Boiler pipe system, no ventilation.

Q8. Do occupants have control over building systems set points (temperature, humidity, lighting,..). If so which items can they change from the list below?

Dorin: They can turn it on or off.

Q9. Do you ever get any complaints from the occupants regarding the HVAC systems in general? If so what is the main issues coming up?

Dorin: They get cold because they open the windows.

Q10. How often do occupants change the set points? And how fast does the building system respond to it?

Dorin: It takes 15 minutes for water to flow and heat up the room.

Q11. Any further comments?

Dorin: N/A

USER INTERVIEWS - Andrew Field

Andrew Field

Q1. Do you use any smartphone applications as a part of your job or at home in your free time?

Andrew: Yes to check in with head office while working at remote offices.

Q2. What kind of office space do you operate in?

Andrew: Commercial office spaces and residential buildings.

Q3. What is the gender demographics of the occupants? (Female to Male ratio)

Andrew: 40 - 60

Q4. What is the average age of the occupants in the building?

Andrew: 24 - 45 yrs

Q5. What does a day in your building look like?

Andrew: Desk work, daily team meetings, and phone conferences with team members working remotely.

Q6. How often do you communicate with the occupants? And what means do you use to do that (email, phone, ...)?

Andrew: Email, Phone, Skype. Every day.

Q7. What is the type of HVAC system installed in this building?

Andrew: Radiant heating and forced air.

Q8. Do occupants have control over building systems set points (temperature, humidity, lighting,..). If so which items can they change from the list below?

Andrew: Temperature only, all one zone.

Q9. Do you ever get any complaints from the occupants regarding the HVAC systems in general? If so what is the main issues coming up?

Andrew: Yes often, specifically those working at off hours.

Q10. How often do occupants change the set points? And how fast does the building system respond to it?

Andrew: There is a battle every single day for supremacy over the thermostat.

Q11. Any further comments?

Andrew: N/A

USER INTERVIEWS - Danny Rand

Danny Rand

Q1. Do you use any smartphone applications as a part of your job or at home in your free time?

Danny: Yes, I use a lot of social media apps like Twitter to catch up on news at home, and I use Trello and Slack for team communications at work.

Q2. What kind of office space do you operate in?

Danny: Commercial building.

Q3. What is the gender demographics of the occupants? (Female to Male ratio)

Danny: 25 - 75

Q4. What is the average age of the occupants in the building?

Danny: 25 - 50 yrs

Q5. What does a day in your building look like?

Danny: Check alarms, turn on AC, turn on computer, make coffee in the office.

Q6. How often do you communicate with the occupants? And what means do you use to do that (email, phone, ...)?

Danny: Email and talk in-person daily.

Q7. What is the type of HVAC system installed in this building?

Danny: Central heating.

Q8. Do occupants have control over building systems set points (temperature, humidity, lighting,..). If so which items can they change from the list below?

Danny: Only heating and lighting for our office.

Q9. Do you ever get any complaints from the occupants regarding the HVAC systems in general? If so what is the main issues coming up?

Danny: Some employees like the temperature hotter while some like it warmer, so it can conflict. We have AC in the office, so if it gets too hot in the building, we can turn it up to counter the heat if we need it.

Q10. How often do occupants change the set points? And how fast does the building system respond to it?

Danny: We change it often and it responds quickly. Things get cold when we want it to get cold and warm when we want it to get warm basically.

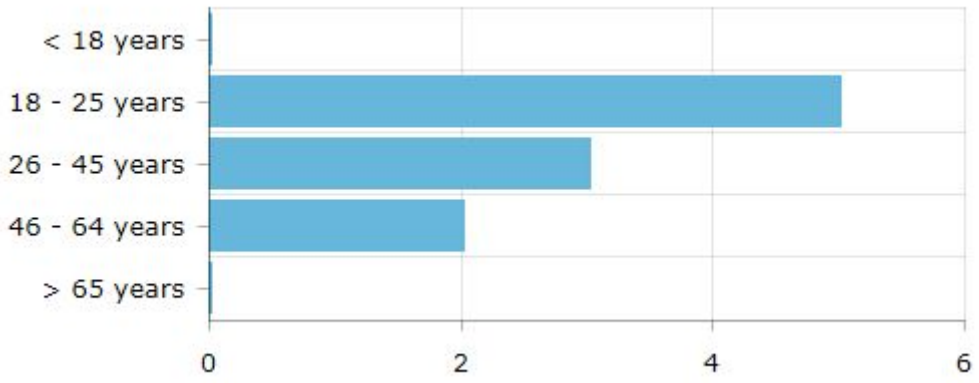
Q11. Any further comments?

Danny: N/A

USER SURVEYS

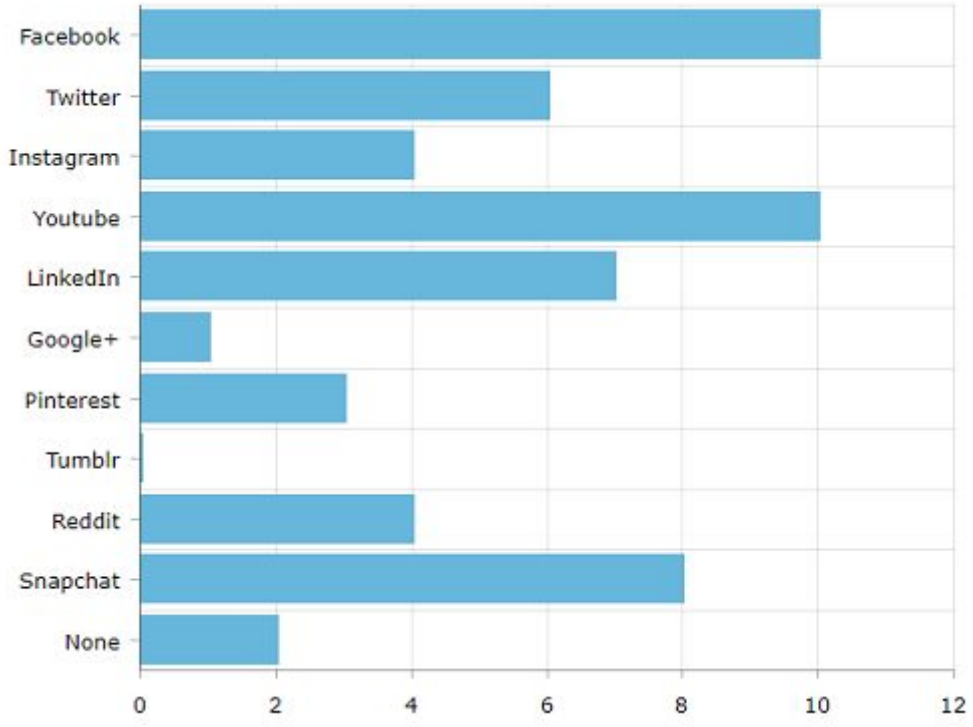
Q1. What age group do you belong to?

A. < 18 years
B. 18 - 25 years
C. 26 - 45 years
D. 46 - 64 years
E. > 65 years



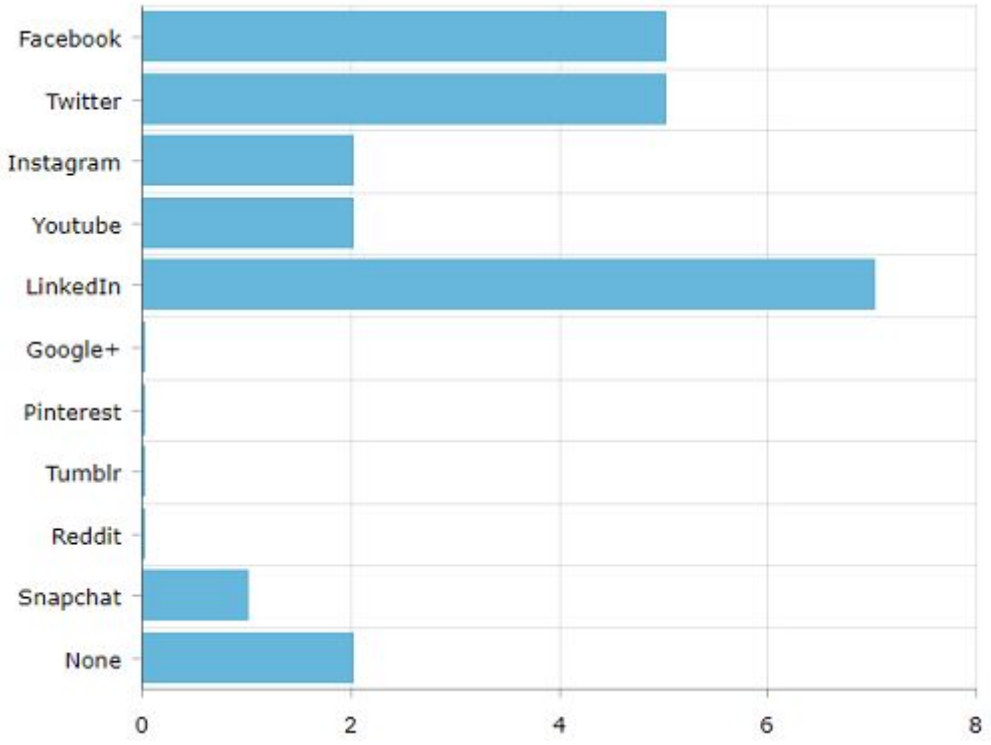
Q2. Which smartphone applications do you regularly use at home or on your free time? Please check all that apply.

- ❑ Facebook
- ❑ Twitter
- ❑ Instagram
- ❑ Youtube
- ❑ LinkedIn
- ❑ Google+
- ❑ Pinterest
- ❑ Tumblr
- ❑ Reddit
- ❑ Snapchat
- ❑ None of the above.



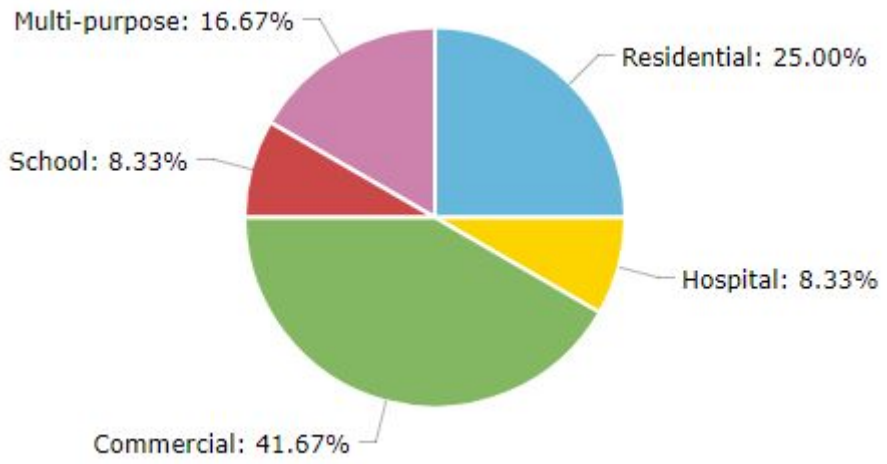
Q3. Which smartphone applications do you use as part of your work? Please check all that apply.

- ❑ Facebook
- ❑ Twitter
- ❑ Instagram
- ❑ Youtube
- ❑ LinkedIn
- ❑ Google+
- ❑ Pinterest
- ❑ Tumblr
- ❑ Reddit
- ❑ Snapchat
- ❑ None of the above.



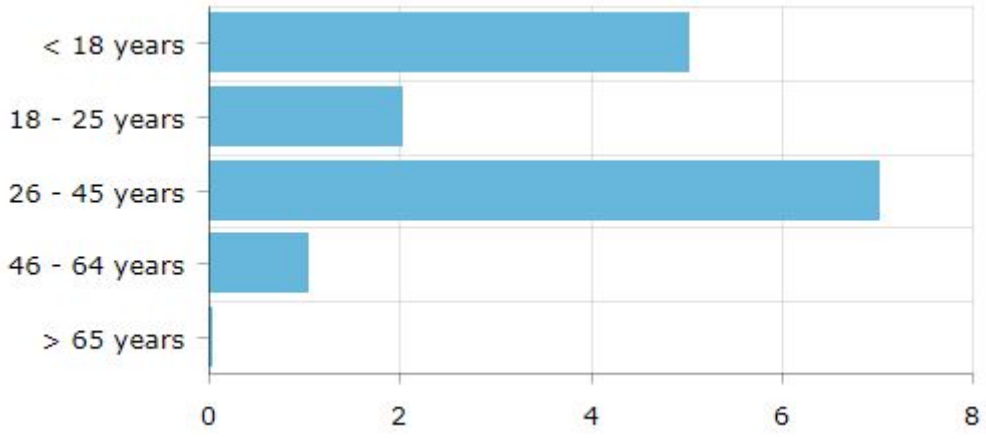
Q4. What type of building do you work in? Please check all that apply.

- ❏ Residential
- ❏ School
- ❏ Hospital
- ❏ Commercial
- ❏ Multi-purpose



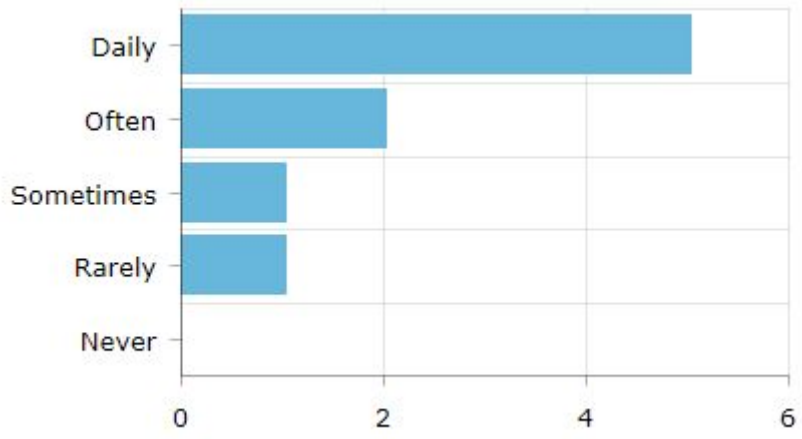
Q5. What is the average age of the building occupants?

Average age: _____



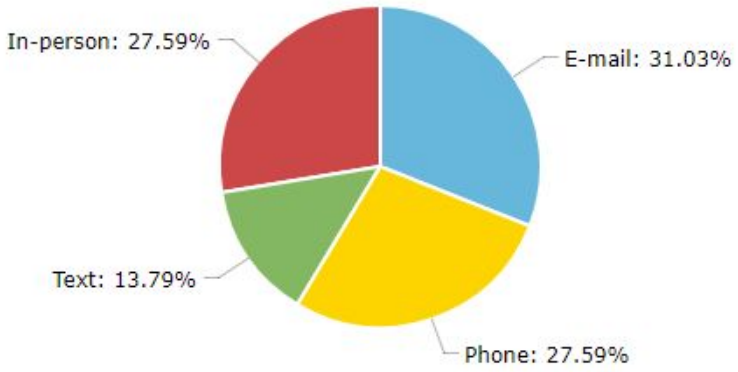
Q6. How often do you communicate with the occupants?

A. Never
B. Rarely
C. Sometimes
D. Often
E. Daily



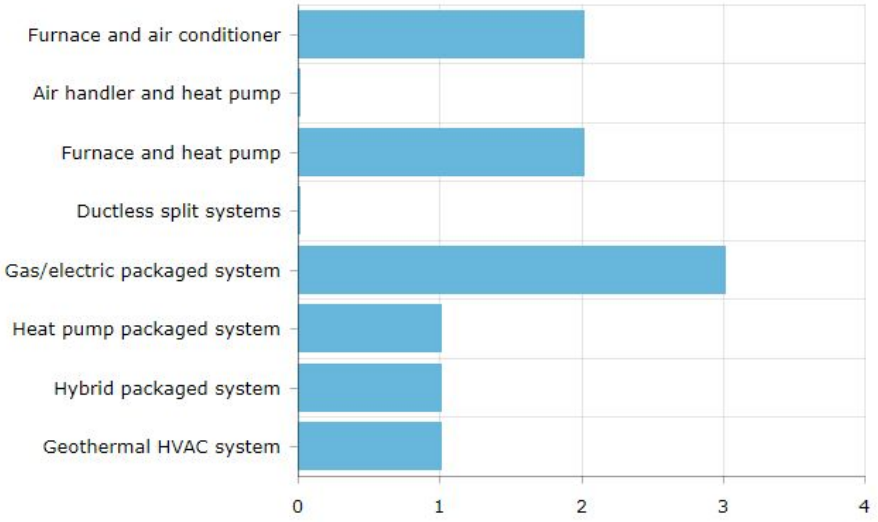
Q7. How do you communicate with the occupants? Please check all that apply.

❑ E-mail
❑ Phone
❑ Text
❑ In-person



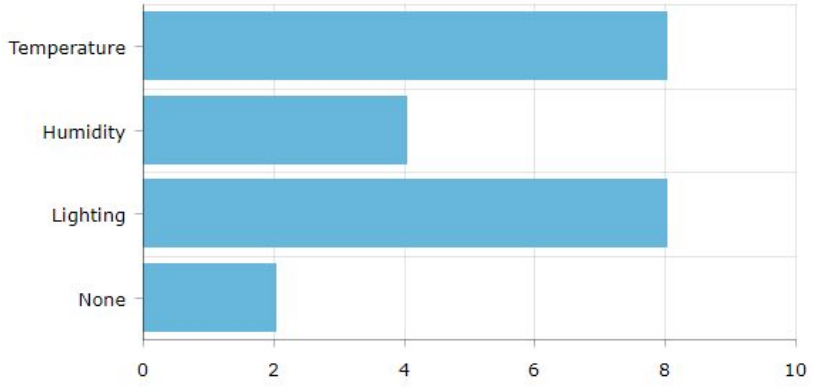
Q8. What is the type of HVAC system installed in your building?

A. Furnace and air conditioner
B. Air handler and heat pump
C. Furnace and heat pump
D. Ductless split systems
E. Gas/electric packaged system
F. Heat pump packaged system
G. Hybrid packaged system
H. Geothermal HVAC system



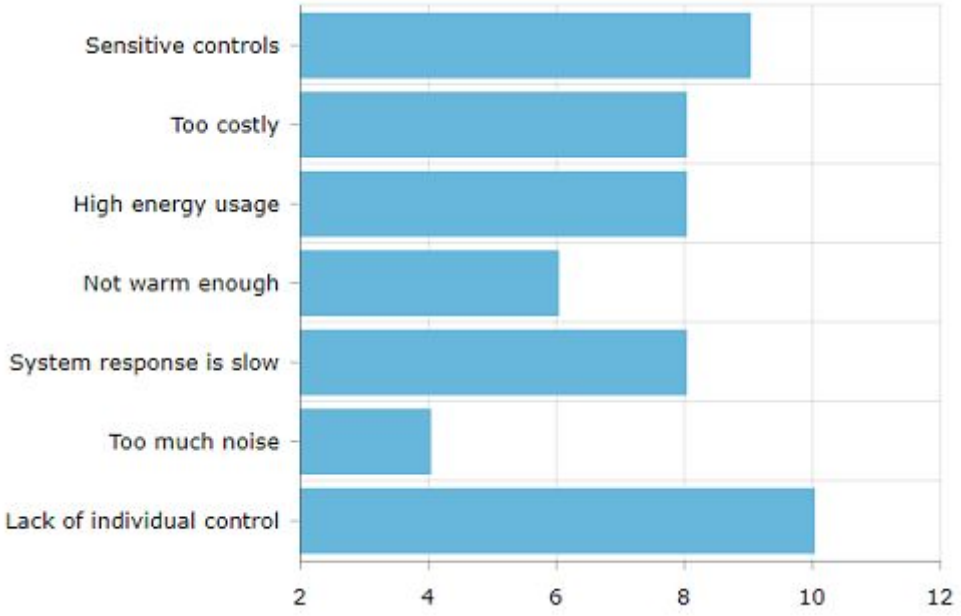
Q9. Which set point(s) do building occupants have control over the HVAC system? Please check all that apply.

❑ Temperature
❑ Humidity
❑ Lighting
❑ None of the above.



Q10. HVAC systems may present building occupants with many issues depending on which system is integrated. What problems have you encountered with your current system? Please check all that apply.

- ❑ Sensitive controls
- ❑ Too costly to replace or maintain
- ❑ High energy usage
- ❑ Not warm enough
- ❑ System response is slow
- ❑ Too much noise
- ❑ Lack of individual control (options)



EMPATHY MAP

Empathy Area	Office Workers	Building Managers
See	• Work in a cubicle most of the day. • Long periods of sitting • Computer use and typing throughout the day • Often checking emails	• Works remotely • Can travel between managed properties • Often in phone or email contact with management staff of leaseholders.
Say and Do	• 9-5 work day, 5 days per week • Regular meetings with coworkers • Long periods of working on own tasks • Minimal spare time	• 9-5 work day, 5 days per week • Travels by car to different properties • Lots of spare time between calls • Meeting with leaseholder management to address building issues
Hear	• Work with professionals at similar skill levels • Work together through team meetings and office messaging such as slack • Are reviewed by team leaders and managers • Are challenged by team leaders • Consume digital media • Socialize on breaks	• Working with secretaries or maintenance people, often of lower skill • Meeting with management, often of higher skill and education • Are responsible to investors or building management company heads • Communicate by phone or email • Evaluated by reductions in costs of building management
Think and Feel	• Ambition to move up the corporate ladder • Like to be appreciated and valued • Dislike completing extra tasks on top of their work • Dislike working on their breaks	• Ambition possibly outside the company • Frustrated by frequent and repeated complaints by the same clients for the same issues. • Motivated to reduce cost of maintenance and power

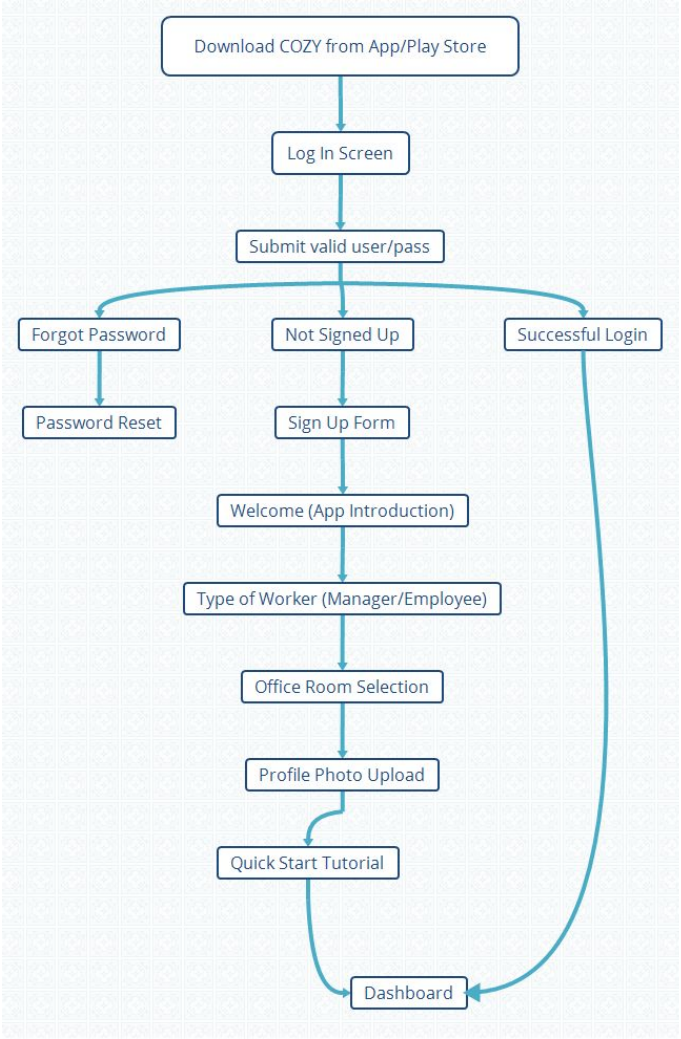
Pains

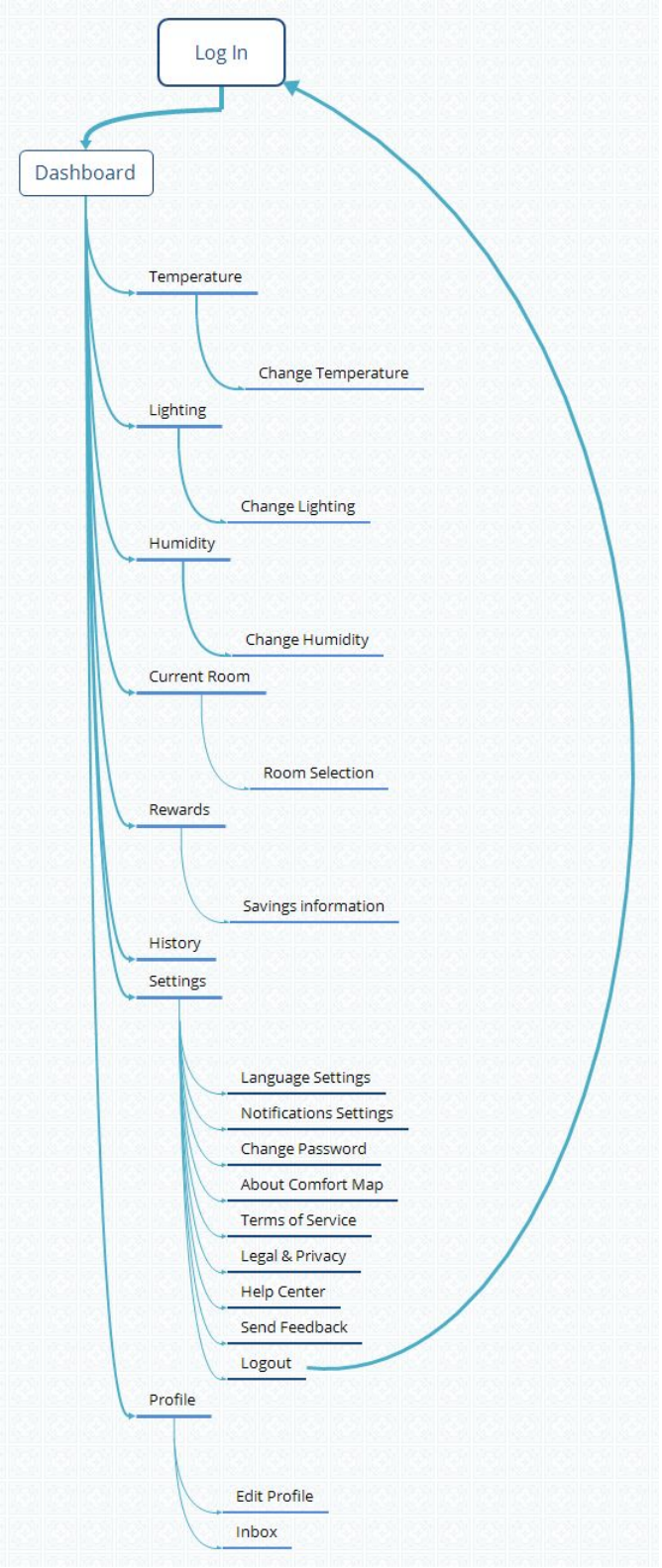
- Both office workers and building managers are under considerable time stress, any additional tasks must save them either time or money in the long run.
- Building managers may not be familiar with technology
- Company management will not approve the use of any apps unless there is a clear profit motive for them to do so.
- Regularly interacting with the app slightly lowers productivity for each employee

Gains

- A simple and minimal interface can minimize loss of productivity due to the use of the app.
- More comfortable workers are significantly more productive which more than offsets the time spent using the app
- Energy savings will be attractive to building managers as it boosts their perceived effectiveness

USER FLOWS


Download COZY from App/Play Store
Log In Screen
Submit valid user/pass
Forgot Password
Not Signed Up
Successful Login
Password Reset
Sign Up Form
Welcome (App Introduction)
Type of Worker (Manager/Employee)
Office Room Selection
Profile Photo Upload
Quick Start Tutorial
Dashboard


Log In
Dashboard
Temperature
Change Temperature
Lighting
Change Lighting
Humidity
Change Humidity
Current Room
Room Selection
Rewards
Savings information
History
Settings
Language Settings
Notifications Settings
Change Password
About Comfort Map
Terms of Service
Legal & Privacy
Help Center
Send Feedback
Logout
Profile
Edit Profile
Inbox

Additional Notes

- Users can adjust temperatures ranging from 15 C to 25 C.
- Users can select the room they have HVAC access to in order to adjust the temperatures of the room that they are currently in (if they are not at their desk).
- Meeting and shared common rooms are set to trending average employee comfort temperatures taken from app data (and can be changed manually by management).
- App runs in mobile background and has pop-up reminders every 2 hours check how comfortable the user is.

PERSONAS, DITL - Peter

Profile

35 years old, recent immigrant, hard worker, tech savvy, uses smartphones

Pains

Has difficulty communicating in English, feels shy

Gains

Will overcome his shyness and insecurities

Goals and Motivations

Intercept direct communications through an app medium

DITL

Peter checks in at 8am. He first checks his emails and voice messages using his phone. He replies to any inquiries and complaints through phone and email. As employees arrive at the workplace, he greets them. Before lunch, Peter texts and emails his employees for a work meeting. During the work meeting, issues and progress points are highlighted and resolved. At lunch, Peter looks up a highly rated restaurant to get food from. He calls in for pickup, and as he drives to and from the restaurant, he listens to the radio. When eating lunch in the staff room, he checks his Facebook and Twitter account for new stories. After eating, he resumes his workday. Peter may receive complaints via email or phone throughout the afternoon that needs to be resolved. If the problem requires help outside of his abilities, he contacts a professional for an appointment. At 6pm, he clocks out and leaves his office.

PERSONAS, DITL - John

Profile

28 years old, professional, educated, single wants to work to love not opposite, tech savvy with decent income

Pains

Wants a comfortable workplace, wants to get all his work done before the weekend, wants to work as easy as possible.

Gains

Easy way to communicate with employees, a way to adjust comfort levels at workplace, needs to get work done and provide feedback

Goals and Motivations

Needs more comfort and ability to provide feedback because his needs tends to get unnoticed

DITL

Wakes up at 7, prepares to go to work, takes a bus, hurries a breakfast down the street. Get coffee and settled at work at 9, checks his emails. Go to some meeting, goes out for lunch at 12 and comes back to take calls at his desk. Works after hours, suffers from lack of AC after 5, leaves work at 7pm.

PERSONAS, DITL - Robert

Profile

60 years old, male, single, cheap, grumpy, impatient, old fashioned, not tech savvy

Pains

Tired of complaints, wants to deal least with tenants, hates job and wants to reduce his workload, doesn't want to pay for employee training, needs to balance employee happiness profit

Gains

Doesn't want to complete tasks, uncooperative, needs a good net time / profit margin, needs a simple UI, needs easy learning curve, doesn't have time to learn new technology, dislikes answering phones or emails

Goals and Motivations

Save energy and avoid interaction because dealing with people frustrates him.

DITL

Robert checks into work at 6am. He checks his voicemail and with his flip phone and calls people back when necessary. He walks around the building and does a manual maintenance check using pen and paper. Robert documents these reports in his office. If there are issues in the building, he contacts a professional for an appointment by phone and writes this appointment time down on a sticky note. At lunch, he eats a homemade sandwich alone at his desk for half an hour. During the afternoon, he receives calls and paper notices from his tenants for building maintenance issues. At 6pm, he locks his office, places an Away sign on his door and leaves the building.

PERSONAS, DITL - Sara

Profile

55 years, educated, has grandchildren. Friendly, patient, uses social media moderately. Works at the office and also is in charge of in house building management

Pains

Wants to save money and create pleasant social interactions

Gains

New ways to engage with tenants, make new friends in the building, needs to communicate with employees, maintain employee satisfaction and increase productivity and reduce errors

Goals and Motivations

New ways to engage and interact with tenants while saving her money in operating the building management

DITL

Sara clocks in at 8am and checks her emails after settling in her desk around 9am. In the morning, she greets other employees in-person and greets clients over phone during calls. Near noon, she starts looks up a place online to go for lunch and grabs lunch. In the afternoon, she may receive employee complaints, and if can’t deal with the issue herself, she would call maintenance operators for help. At 6pm, she clocks out and leaves office to go home.

User Stories

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1. As a user I want to be able to set the office temperature remotely through my phone, because I don't want to work in a cold office.
2. As a user I want to see the building temperature in my phone, in order to get an idea of how it feels like in the building right before I arrive.
3. As a user I want to be able to see which employees are too hot and which employees are too cold throughout the building.
4. As a user I want my employees to give me feedback on the temperature of the office without taking much time out of either of our days.
5. As a user I want to be able to show how much money I am saving through reductions in heating and cooling.
6. As a user I want to know that my feedback has been received by management and been taken into consideration.
7. As a user I want to be able to give/receive feedback from people who speak different languages.
8. As a user I want to minimize training time needed for employees to give me feedback for the app.
9. As a user I want to organize requests and feedback from multiple buildings and/or users.
10. As a user I want to be able to give detailed requests to management regarding the office climate only when that detail is necessary.

JOURNEY MAP

	Prework	Arrival	At Work	Break	Departure
Current State	- grab coffee - drop off kids - read news	- park the car - fob in - check voicemails - check alerts on phone	- attend meetings - socialize -do regular maintenance - respond to complaints	- research for lunch - go out for lunch/smoke	- turn on alarms, check lock systems status - leave the building
Ideal State	- Preheat building before arrival	- monitor live temperature for building and their office	- read user reports and complaints on an app - check alarms and system maintenance time on phone	- have the ability to go idle to get a break	- get some feedback on tenants on how their overall day was
Channel	- phone - email - radio - people	- phone - people - clock	- work emails - phone calls - people - computer	- phone - billboards - tv/youtube - personal emails	- log system for wok hours - people - radio - phone
Opportunities	- Application level control system to monitor and adjust temperatures	- Online thermostat connected to office sensors (IOT)	- App dashboard of reports and analysis of data collected - Maintenance reminders	-Configurable voice message system - Automatic email - App notifications	- Data Analysis and forecasts

USER TESTING

Goals

To understand the level of understanding of the user regarding the app: the technical keywords used, app interactions and the flow.

Introduction

In this test, the user is going to browse and navigate through the Cozy prototype without prior knowledge of what the app is and what it is supposed to do, the user thought process and answers will be captured throughout the test.

Tasks

- Open the application
- Navigate to different section
- Change settings
- Understand displayed information
- Change set - points
- Update personal information

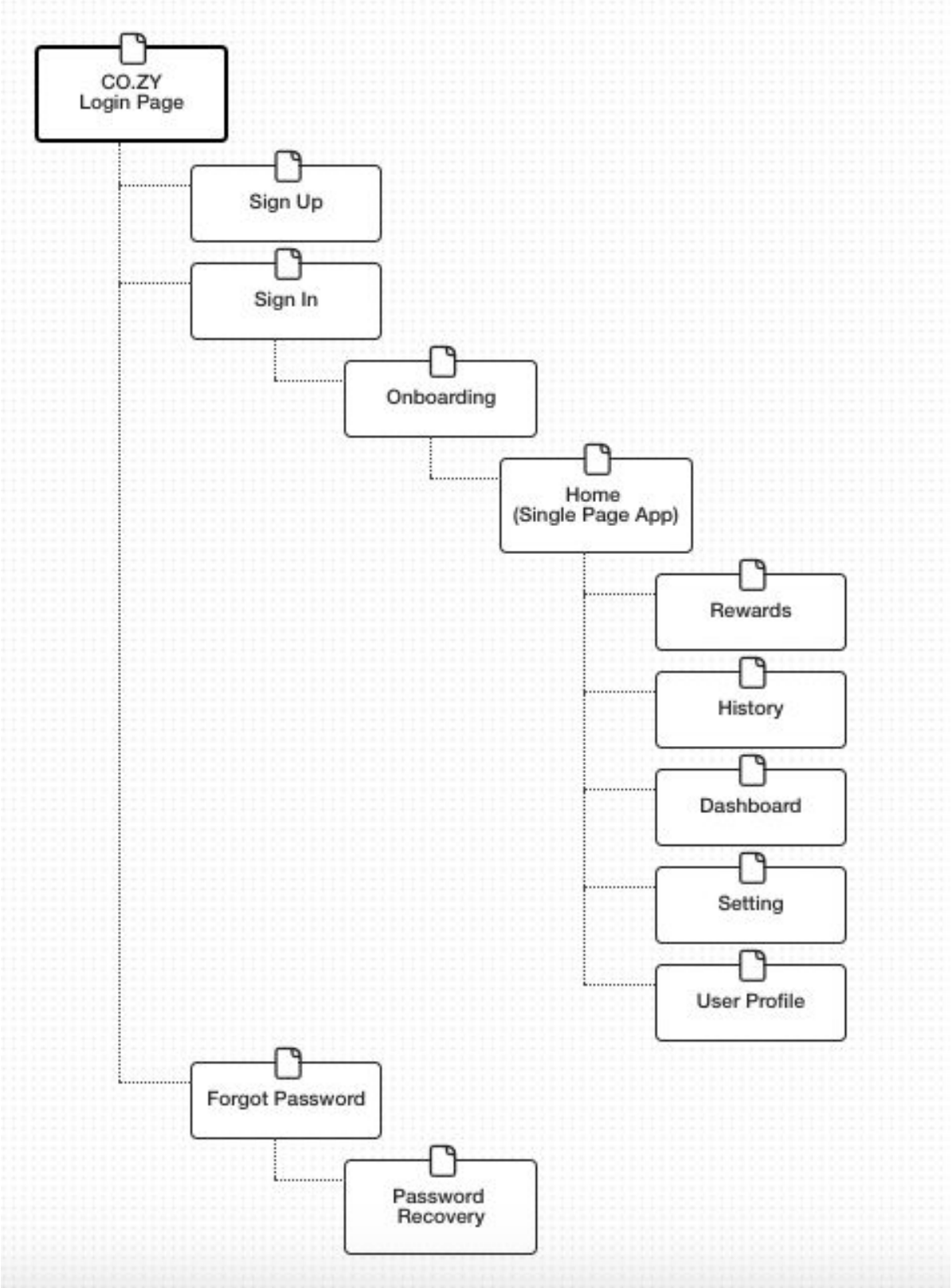
Questions

1. Can you tell what this app does?
2. Did you expect to see each page as you were navigating to them?
3. Are you able to identify what you are required to do to change setpoints?
4. Where do the signs in the dashboard mean? can you read them and their values?
5. Are you able to change those values?
6. Do you understand the meaning of the messages that are displayed below?
7. What is the purpose of this app?
8. What do you think you will find frustrating while using it?

Results & Conclusion

- User was confused by what do we mean by comfort ‘map’ (originally named our app ‘Comfort Map’), they were looking for a map; otherwise they were comfortable with each screen.
- Unclear on dashboard icons and what they mean.
- Unclear on what Rewards meant and why they needed to earn Stars.
- They could not change humidity (the water drop is ambiguous).
- App purpose and messages were clear.
- User was unclear if app icons were interactive/clickable. May need another indication or tutorial.

SITE MAP


CO.ZY
Login Page
Sign Up
Sign In
Onboarding
Home
(Single Page App)
Rewards
History
Dashboard
Setting
User Profile
Forgot Password
Password
Recovery

DESIGN DIRECTION (GRAPHIC, COLOURS, FONTS)

Logo Design

Fonts

Berkshire Swash - Screen titles
Lato - General text
Roboto - Button text

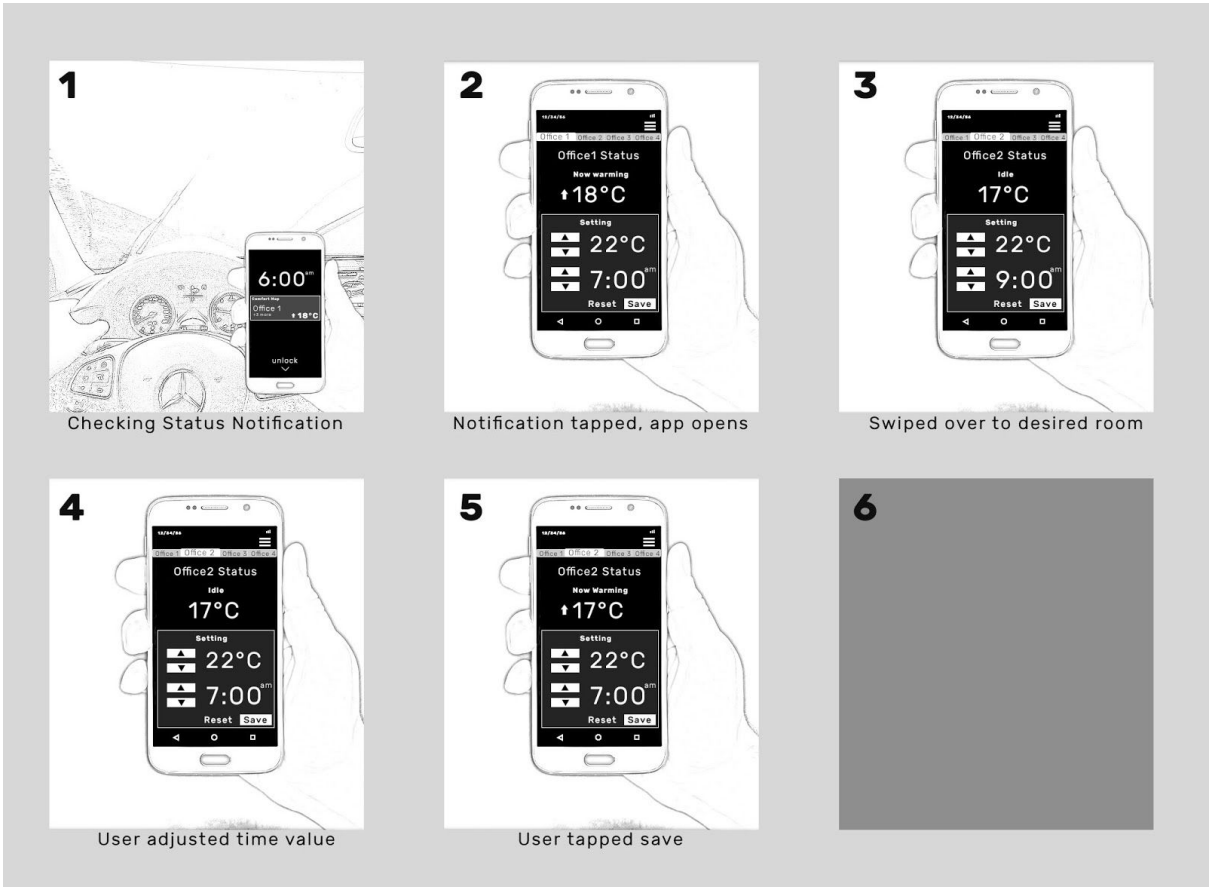
Colours

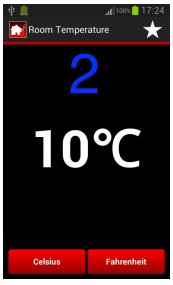
Notes

- Flat design for icons
- Easy to read, simple to use UI
- Business-friendly colours

WIREFRAME ITERATIONS - GENERAL

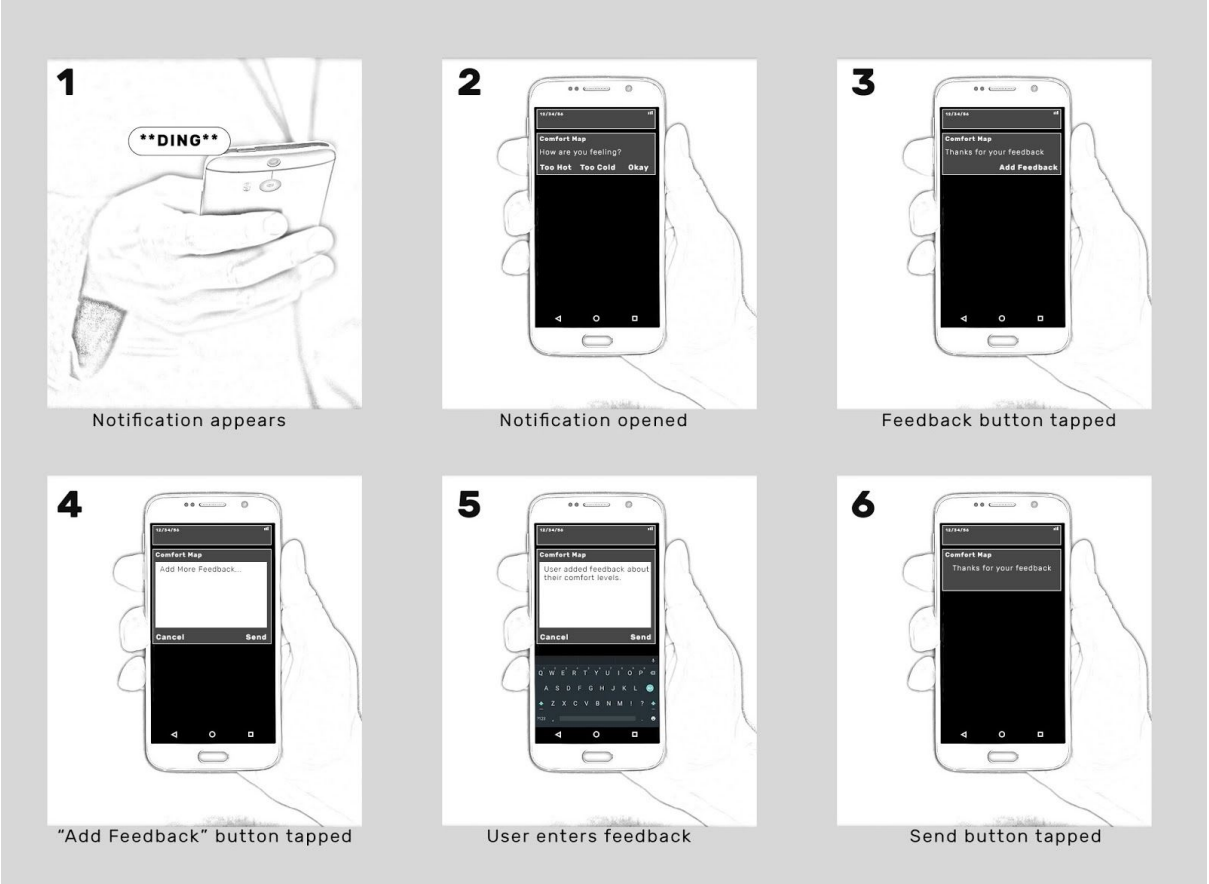
As a user I want to be able to set the office temperature remotely through my phone, because I don't want to work in a cold office.



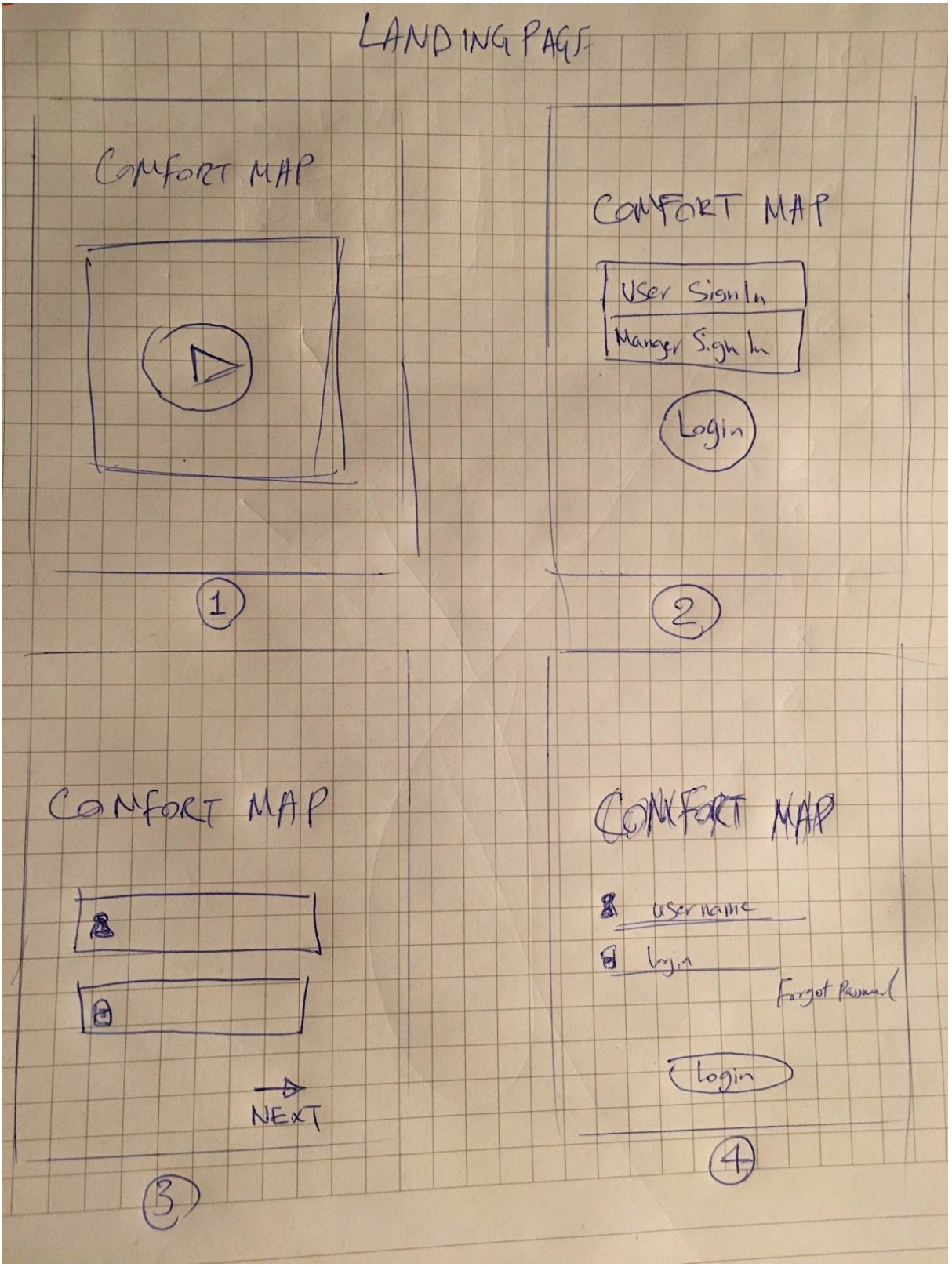


As a user I want to be able to give/receive feedback from people who speak different languages

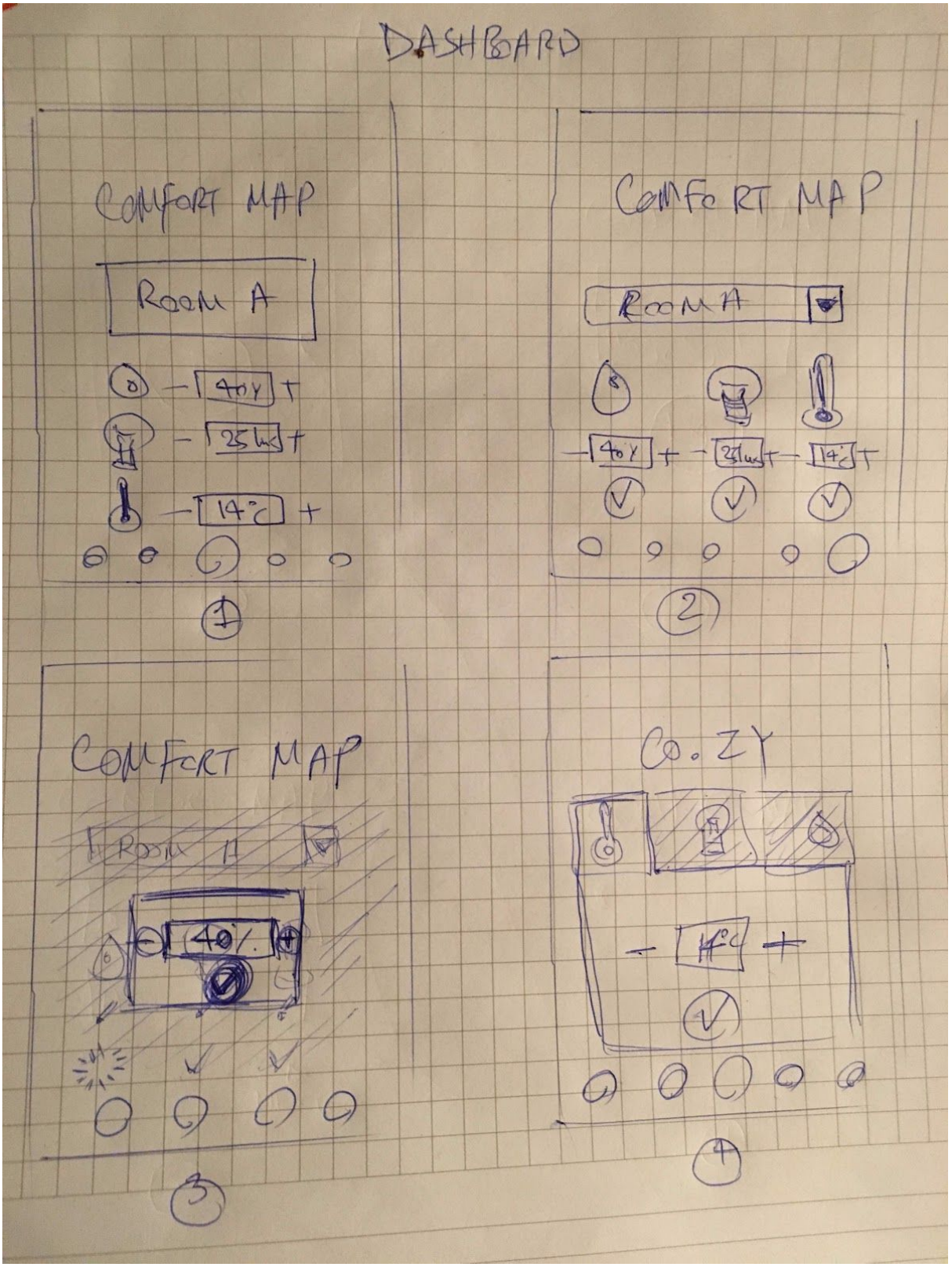
As a user I want to be able to give detailed requests to management regarding the office climate only when that detail is necessary.



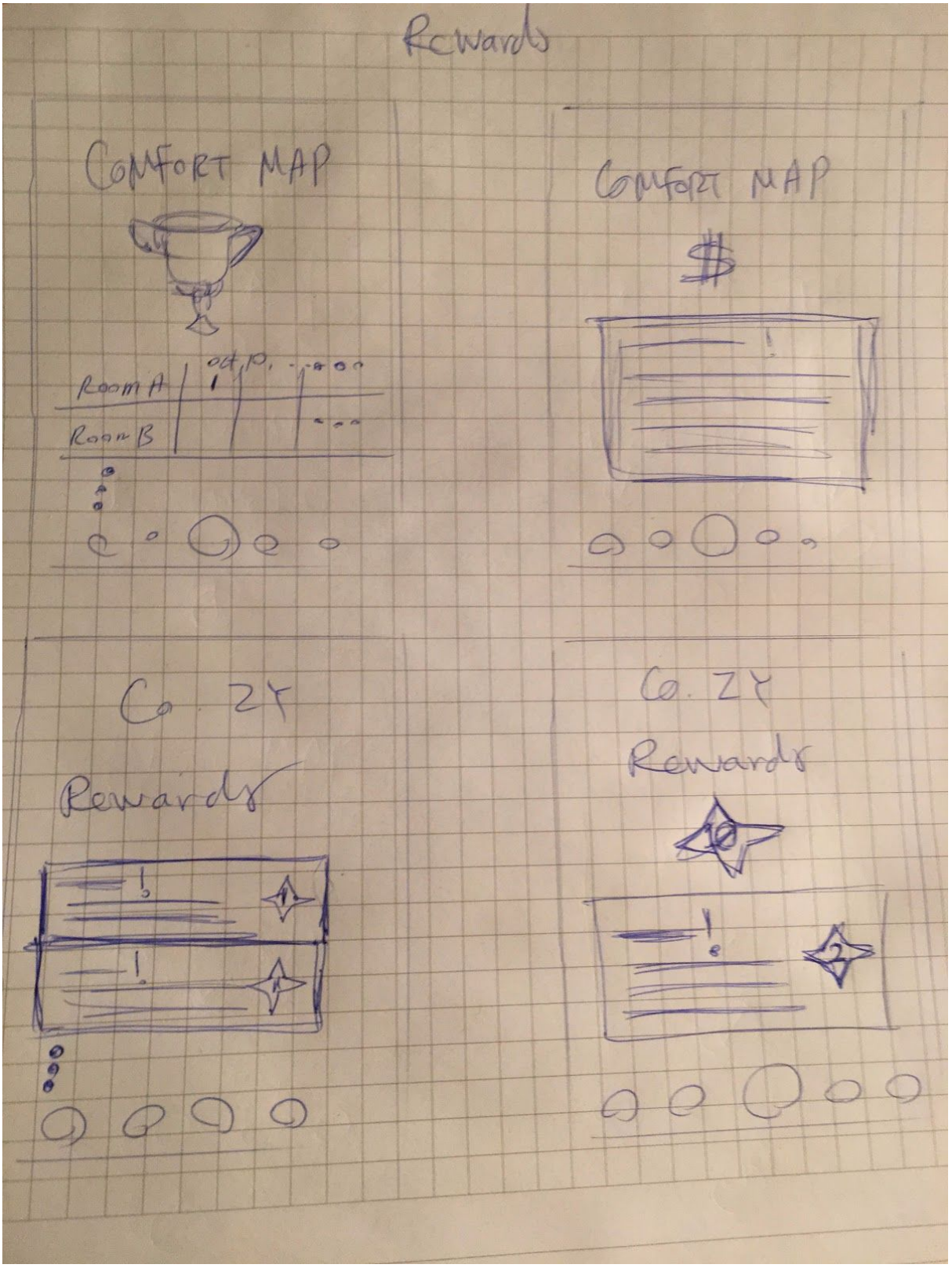
WIREFRAME ITERATIONS - LANDING PAGE



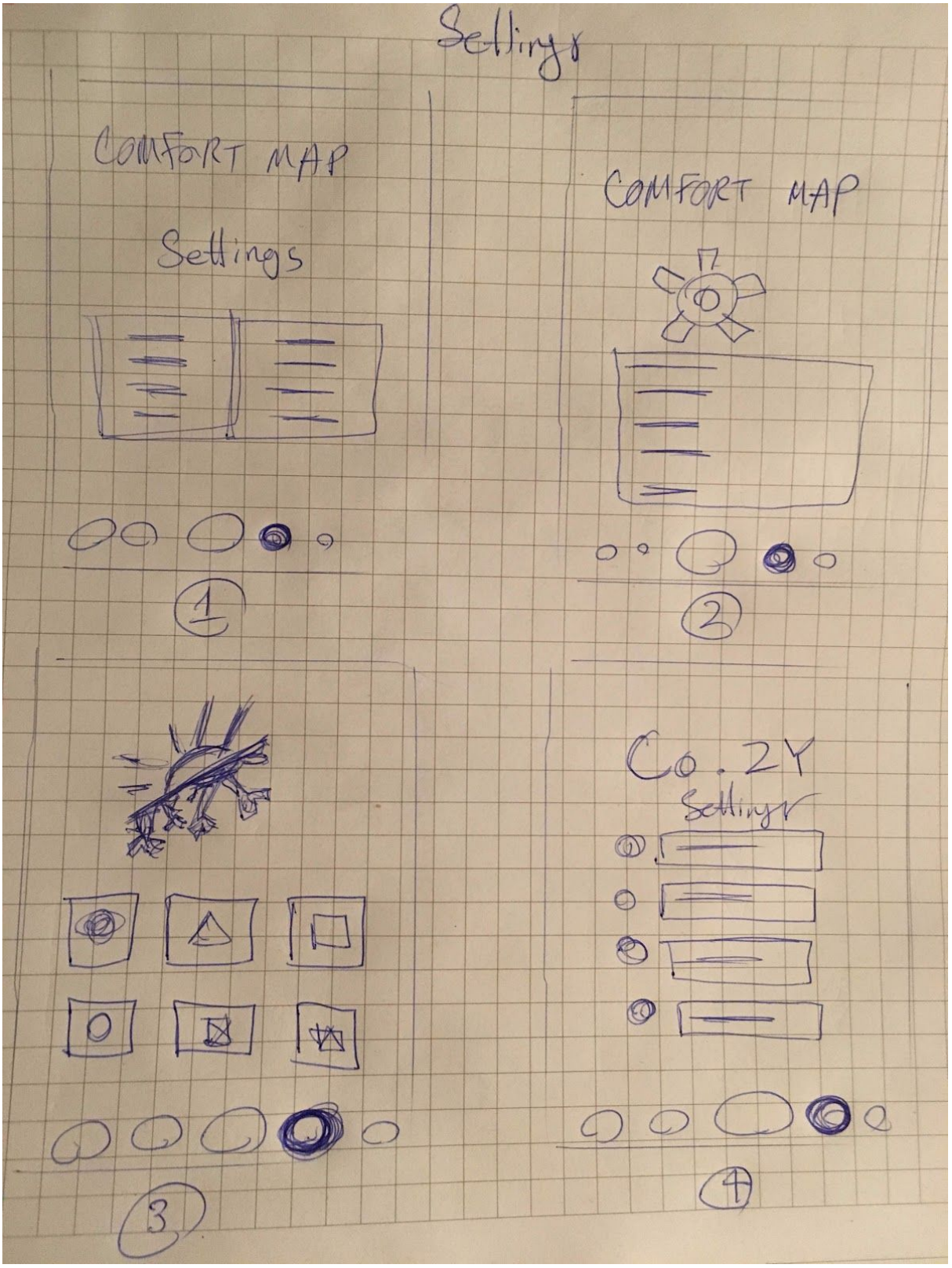
WIREFRAME ITERATIONS - DASHBOARD



WIREFRAME ITERATIONS - REWARDS



WIREFRAME ITERATIONS - SETTINGS

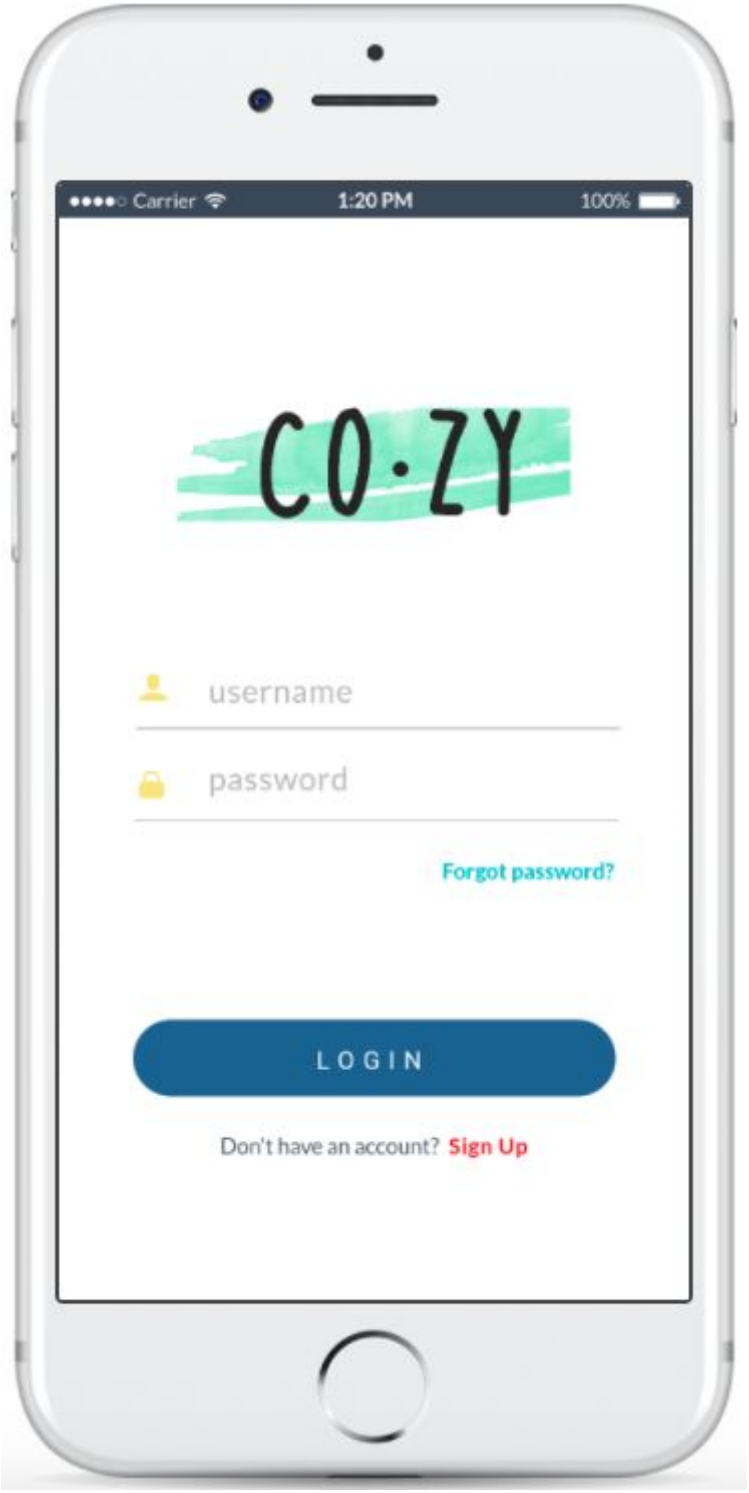


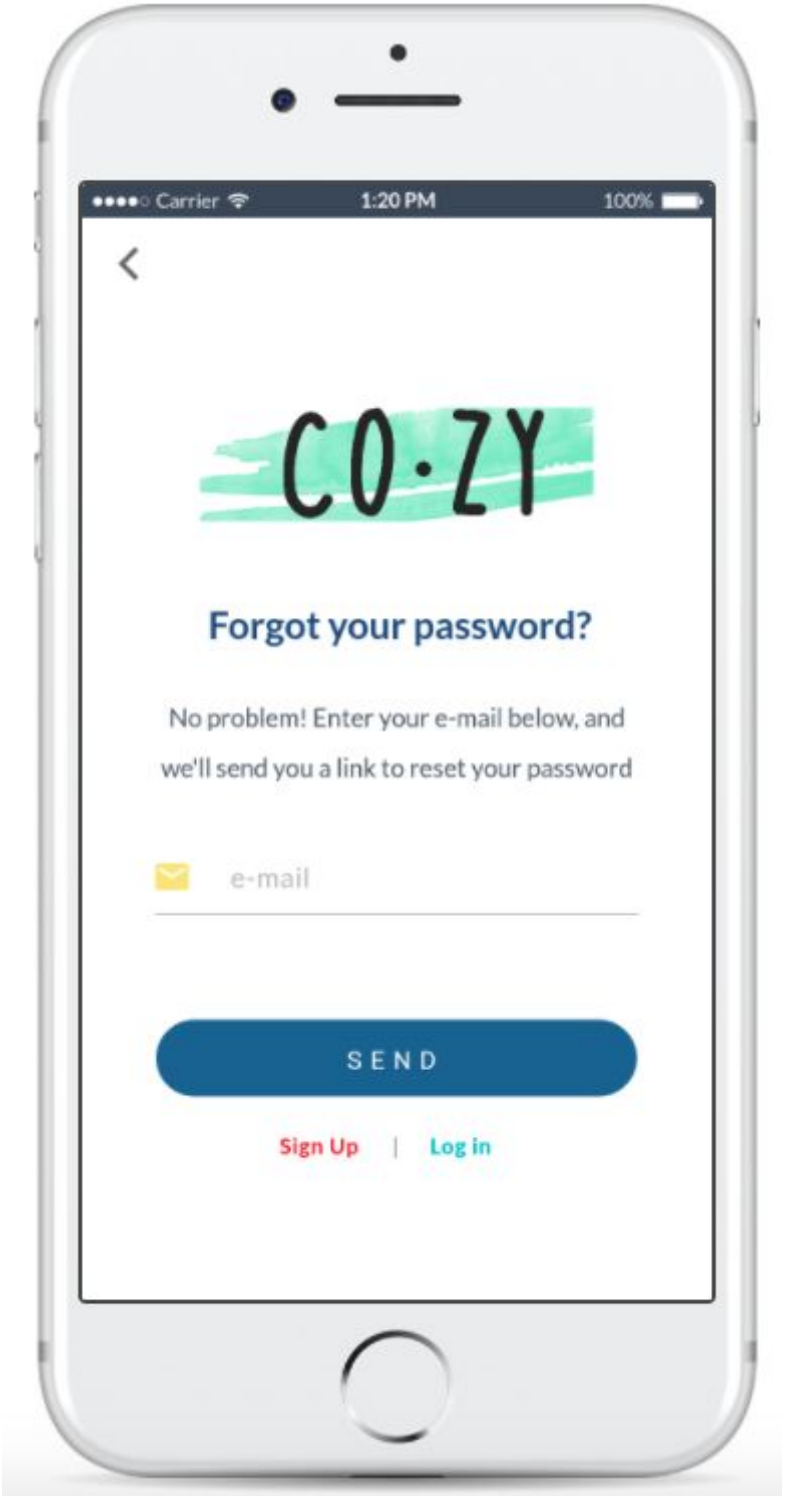
FINAL PROTOTYPE

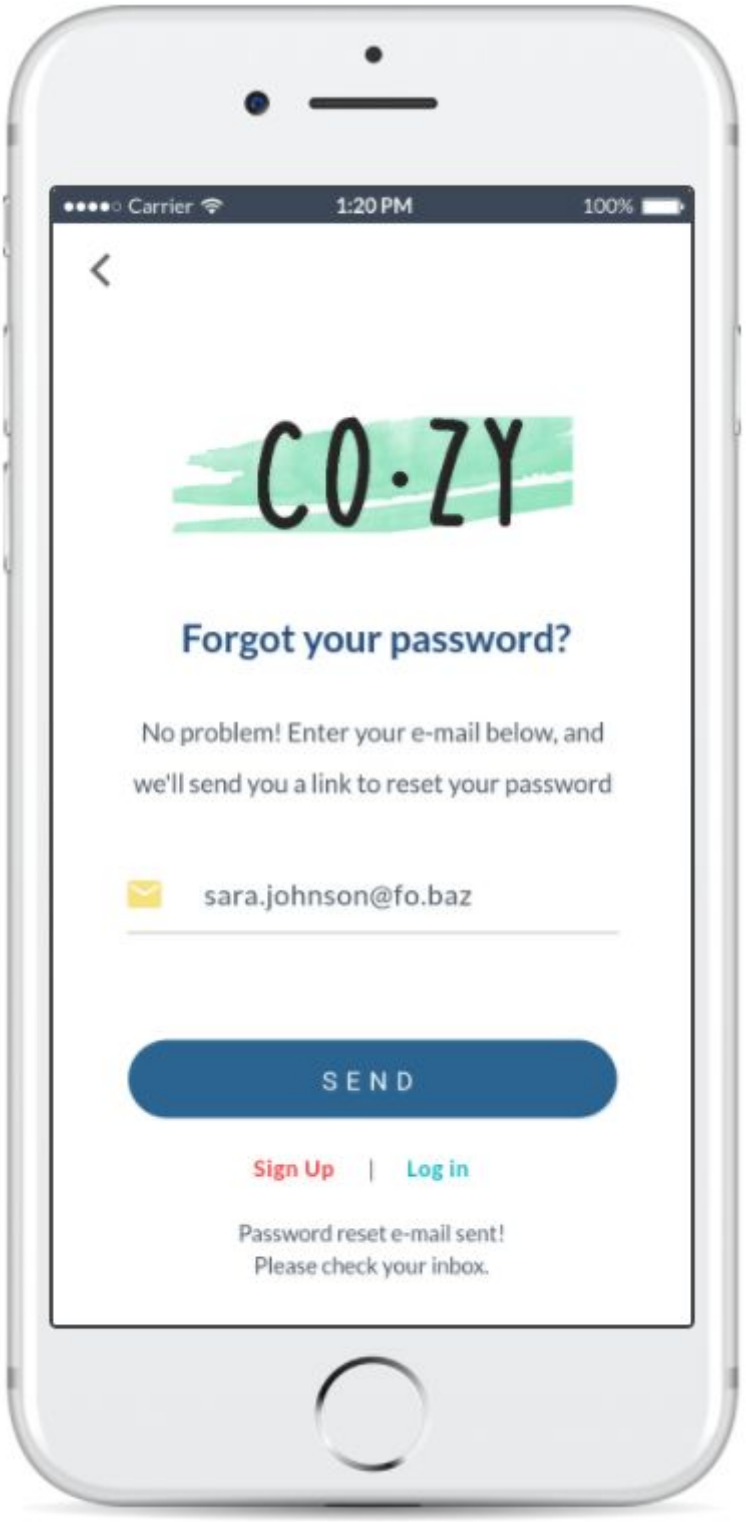
Live Play

LIVE PREVIEW

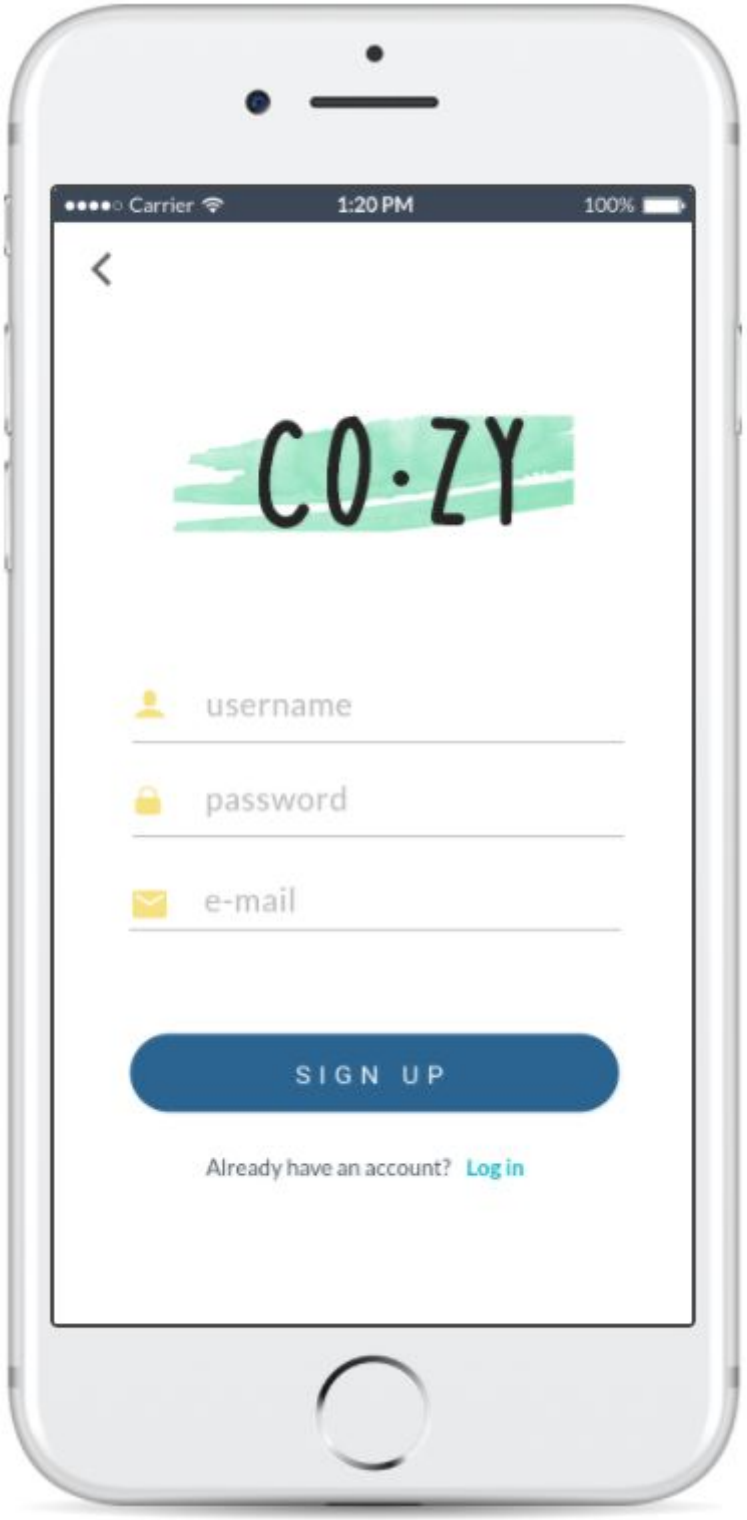
FINAL PROTOTYPE SCREENS

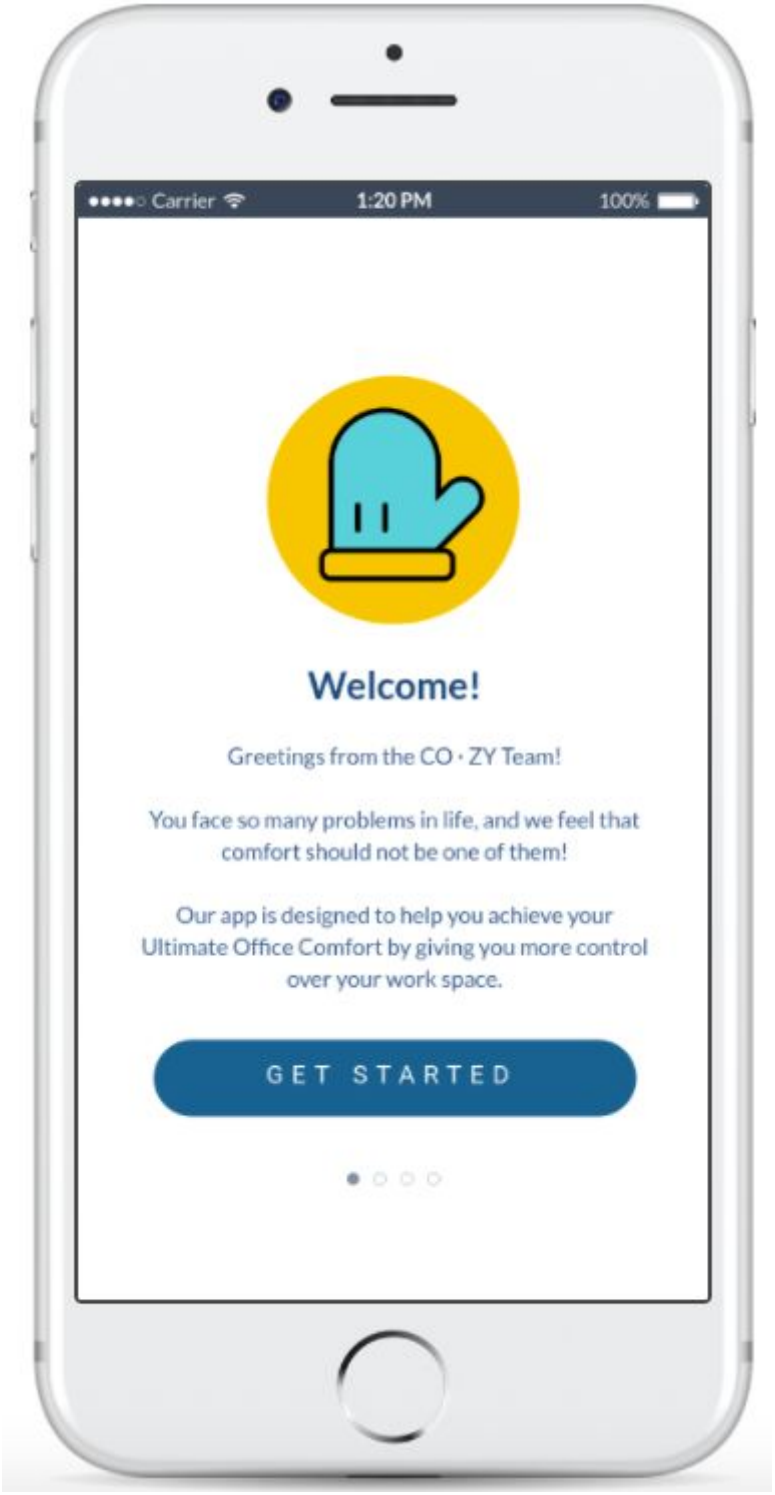



Carrier
1:20 PM
100%
CO·ZY
Forgot your password?
No problem! Enter your e-mail below, and
we'll send you a link to reset your password
e-mail
SEND
Sign Up
|
Log in

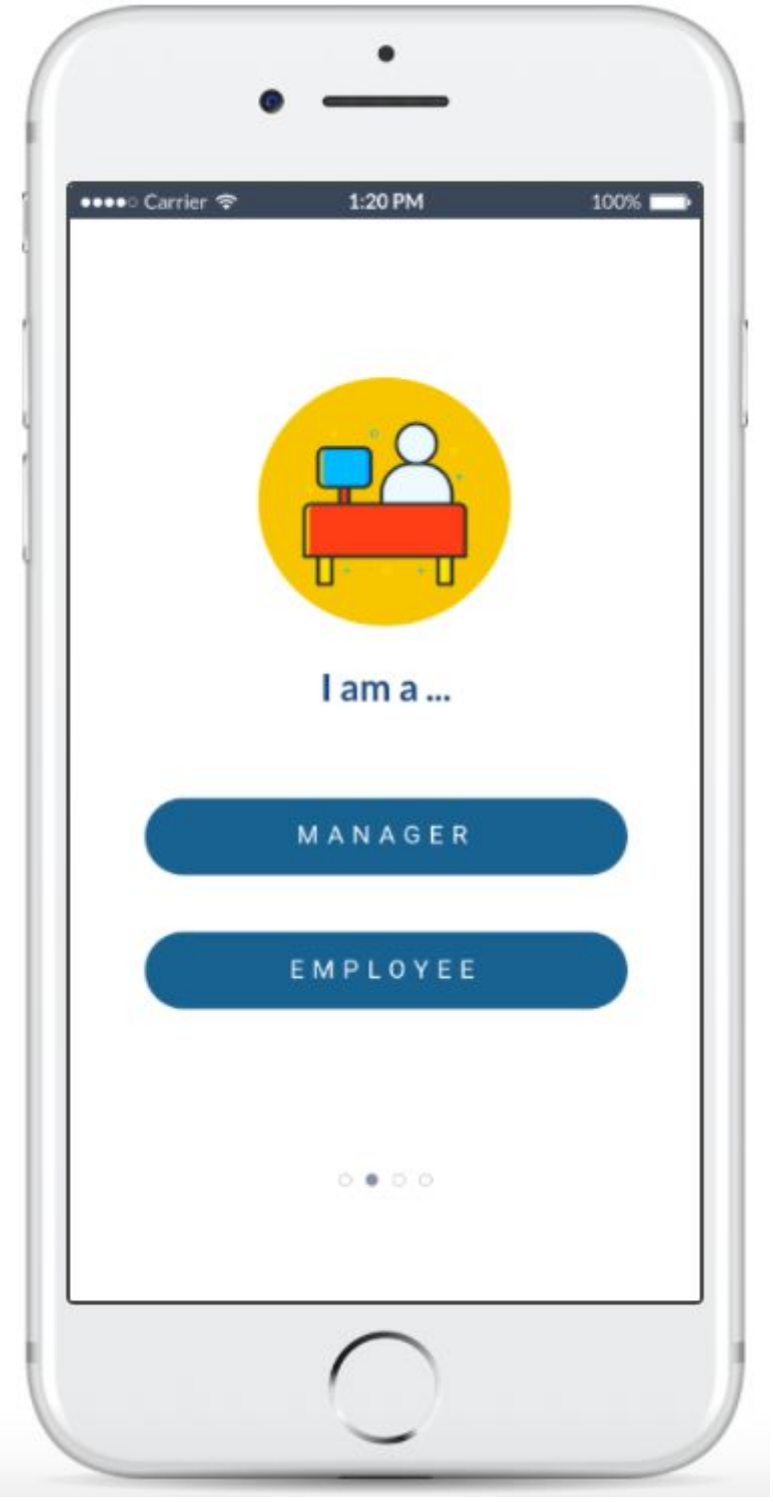


After the e-mail is sent for password reset, the user will be informed with a message on the bottom that the request has been submitted and they should check their inbox for the e-mail.

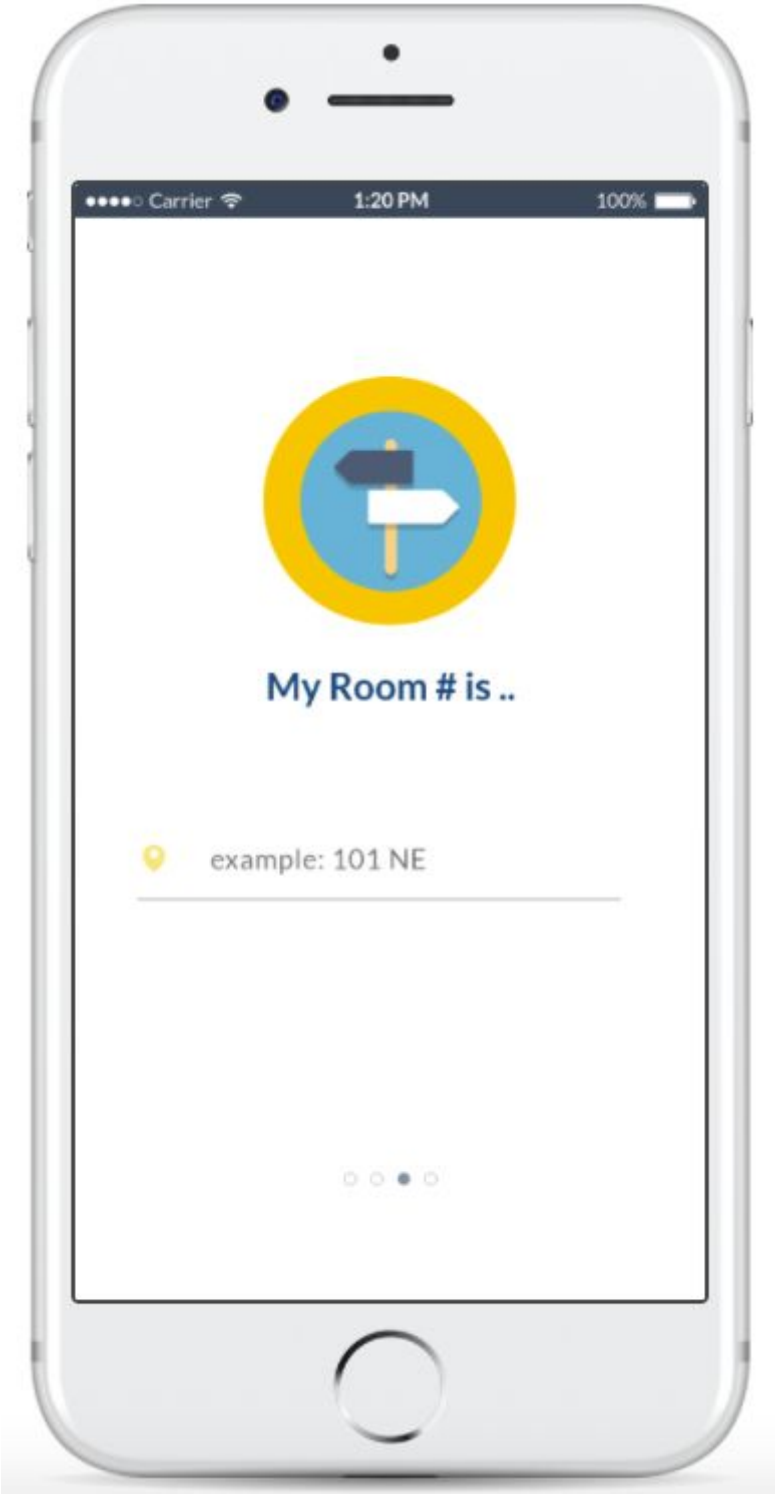

Carrier
1:20 PM
100%
CO·ZY
username
password
e-mail
SIGN UP
Already have an account? Log in



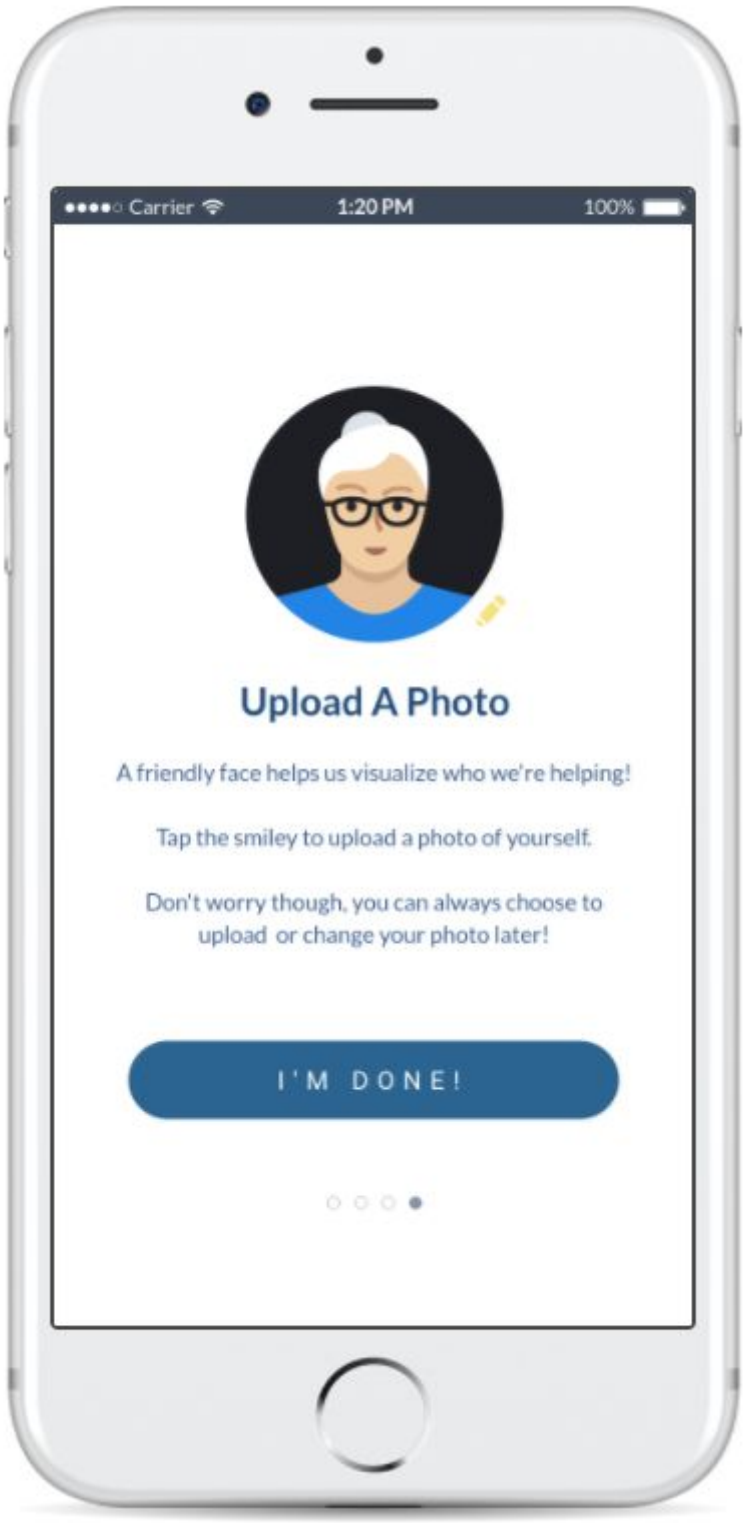
The dots on the bottom signify to the user how many different screens in order to view their progress.



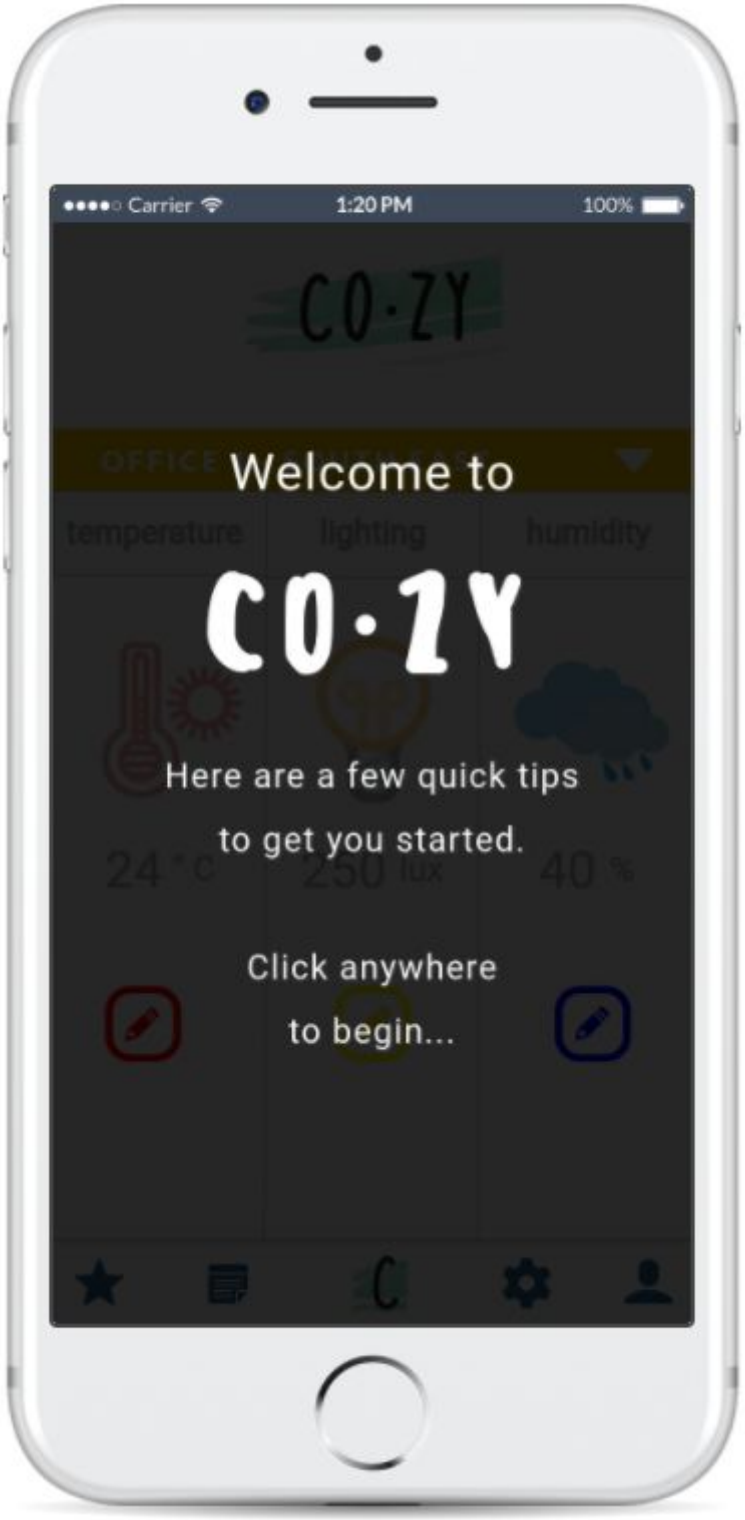
New users will be asked if they are a Manager or an Employee to further help identify their needs and status while using our app.



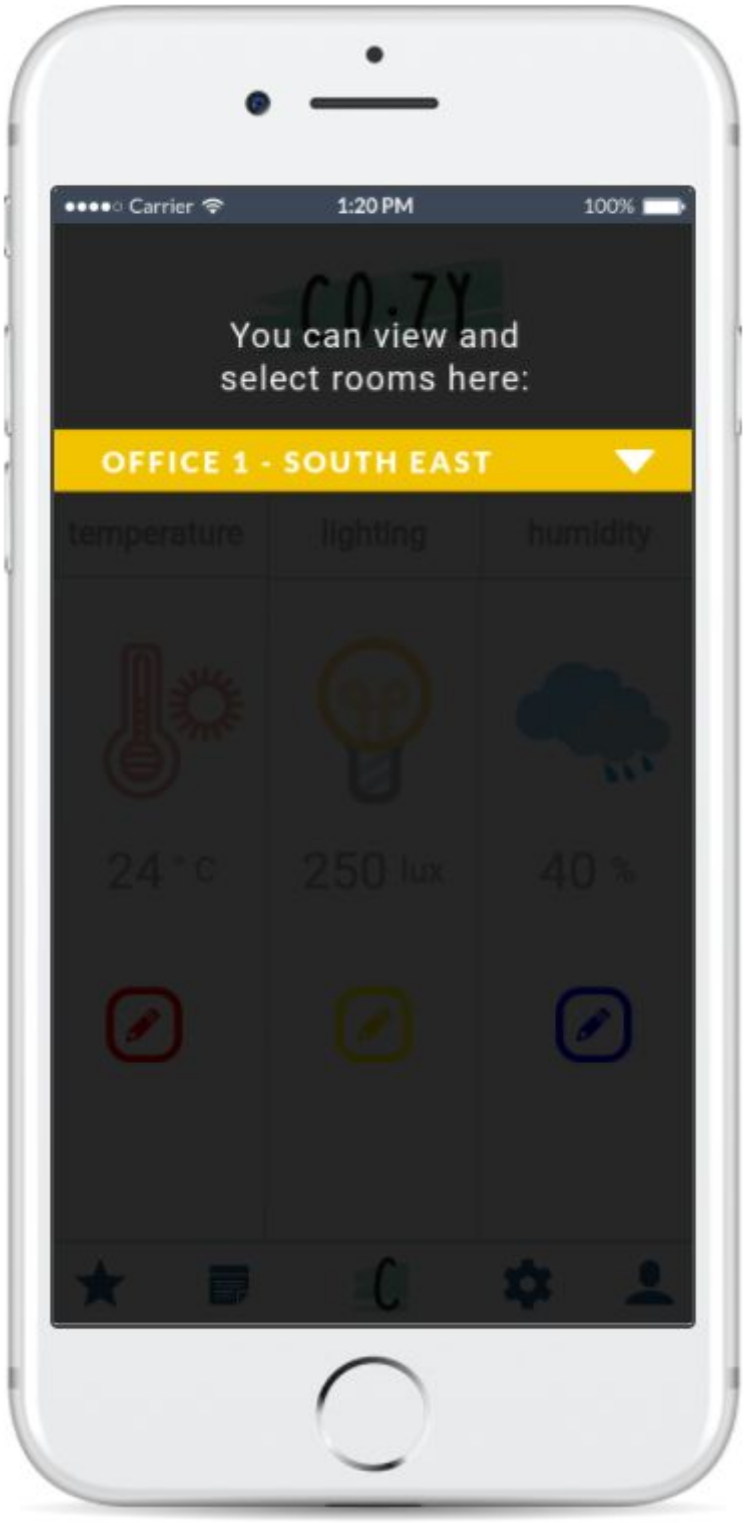
New users will need to set their current office room. An example if provided in the input hint of what format we would like the room to be identified in. Users will tap on the example to type in their room number within the building.

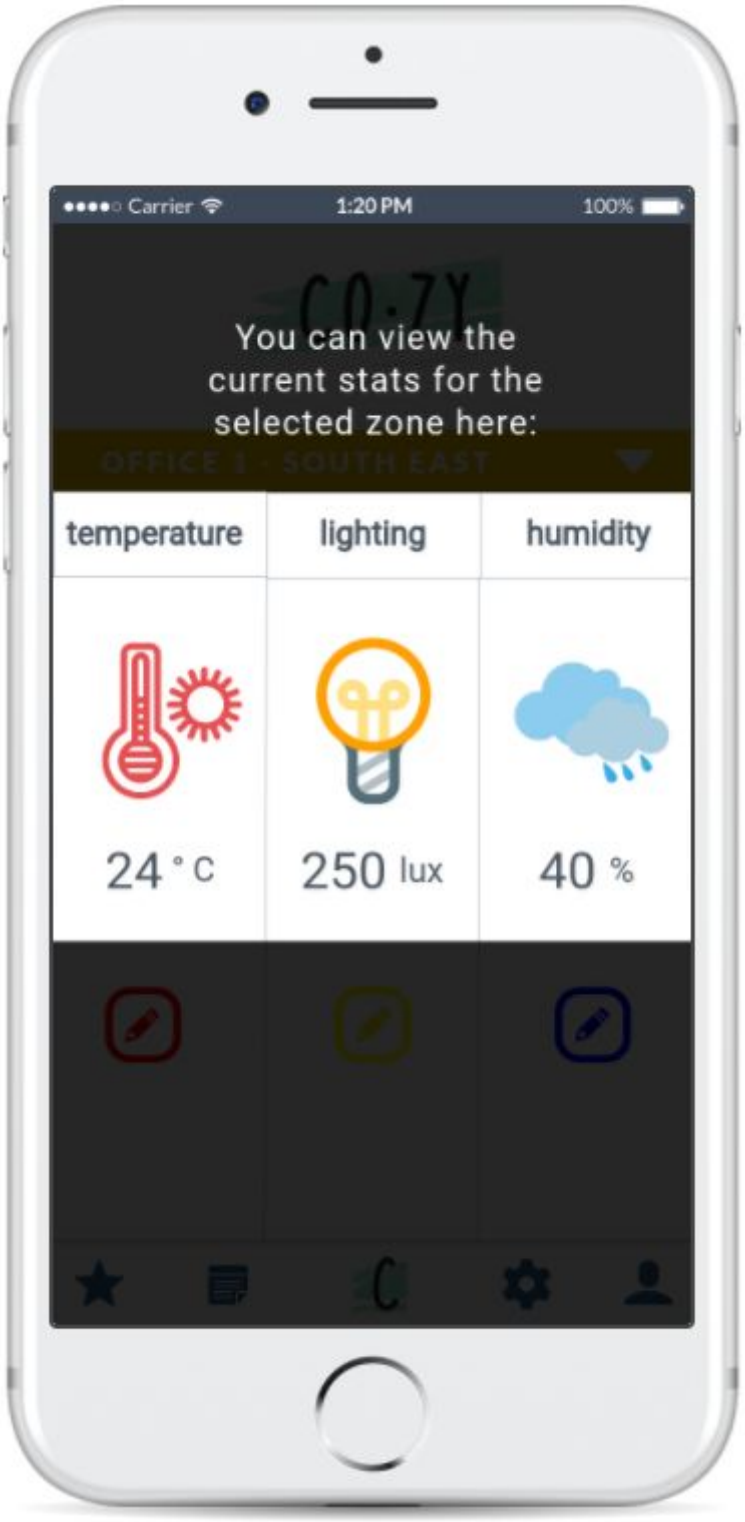


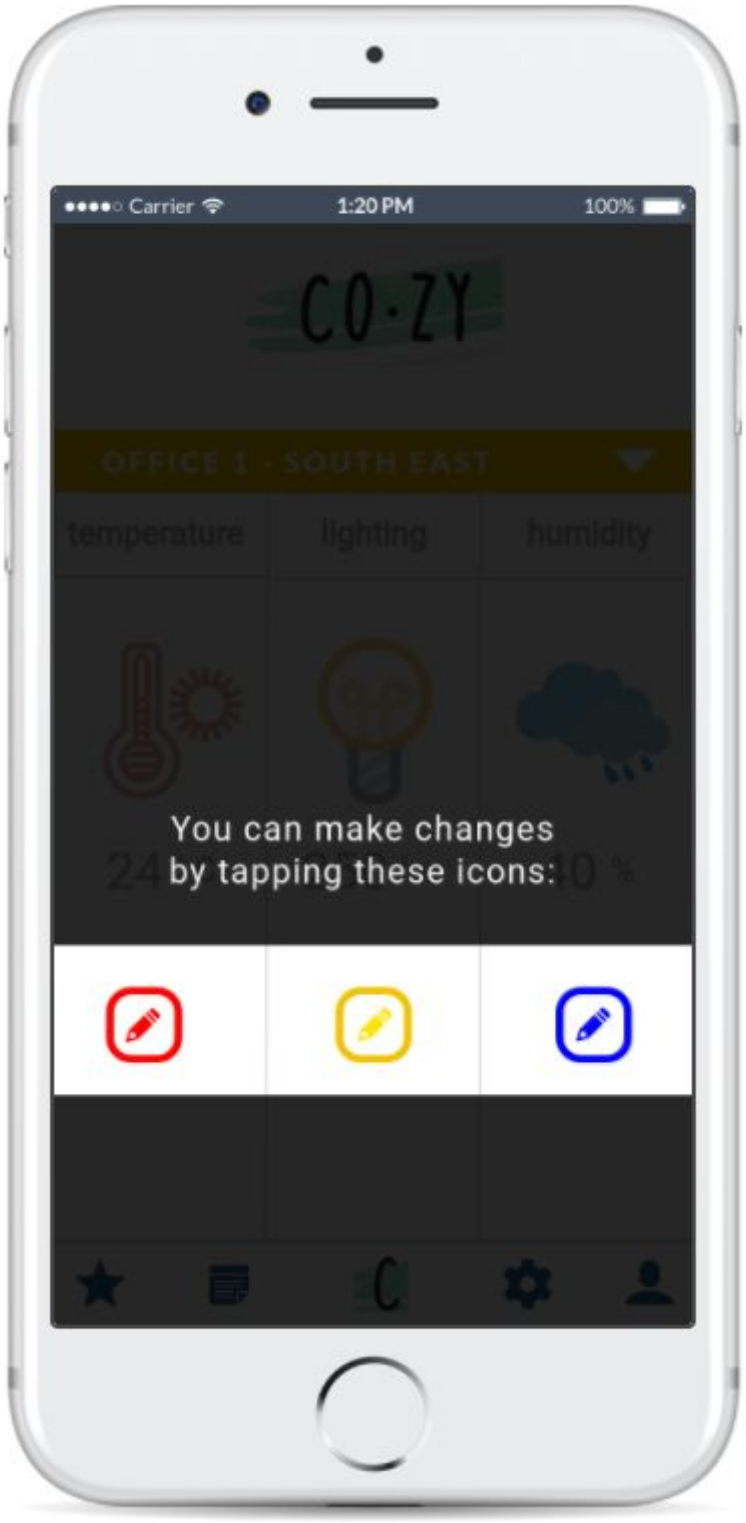
The user has an option to not upload a photo to use the app, or they may change/add a photo later on.



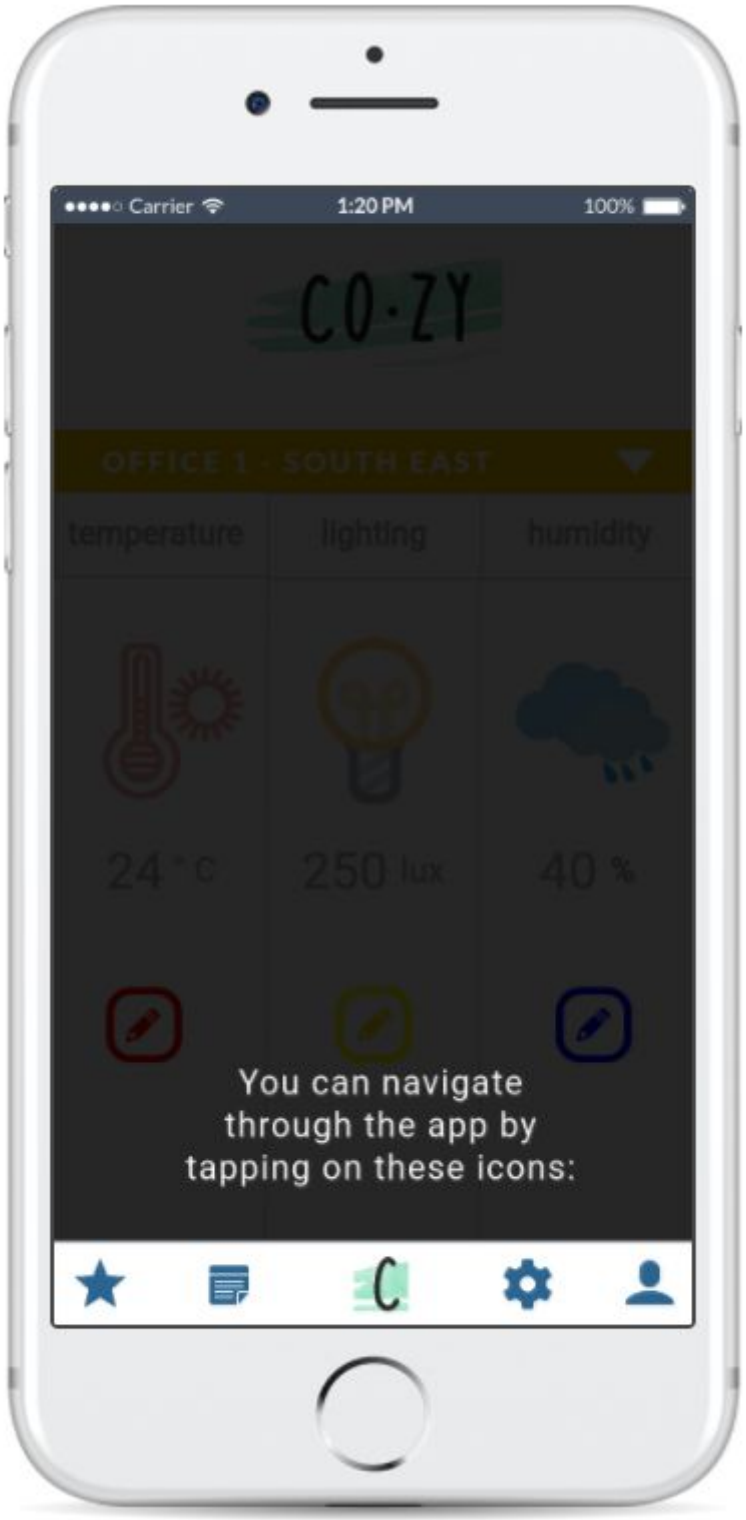
A quick tutorial will be given to the user so that they understand how to navigate the app. This tutorial was added to indicate where users can interact to accomplish a certain task within the app, as some icons may not seem like they are buttons (e.g. the thermostat icons).

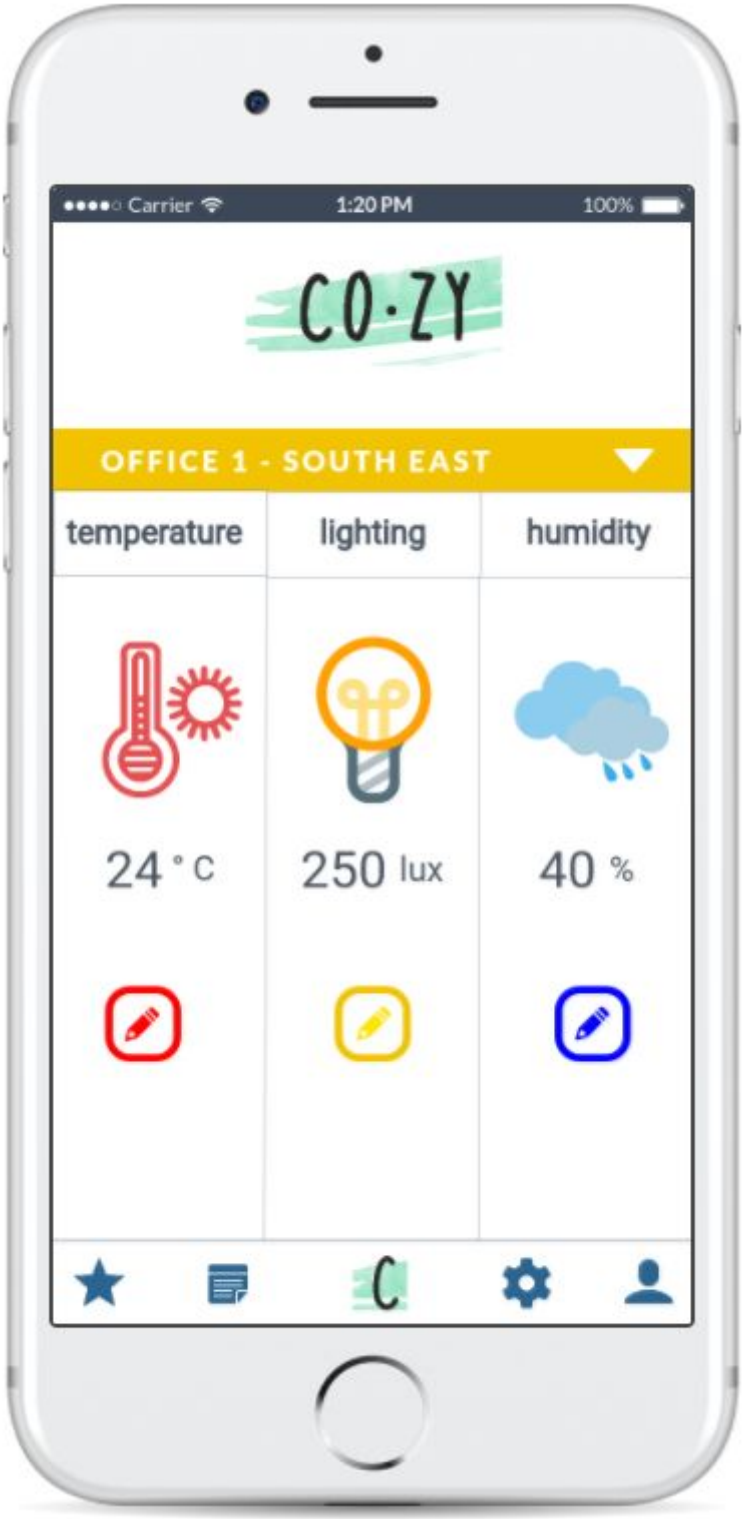

Carrier
1:20 PM
100%
You can view and
select rooms here:
OFFICE 1 - SOUTH EAST
temperature
lighting
humidity
24 °C
250 lux
40 %


Carrier
1:20 PM
100%
You can view the current stats for the selected zone here:
temperature
lighting
humidity
24 °C
250 lux
40 %

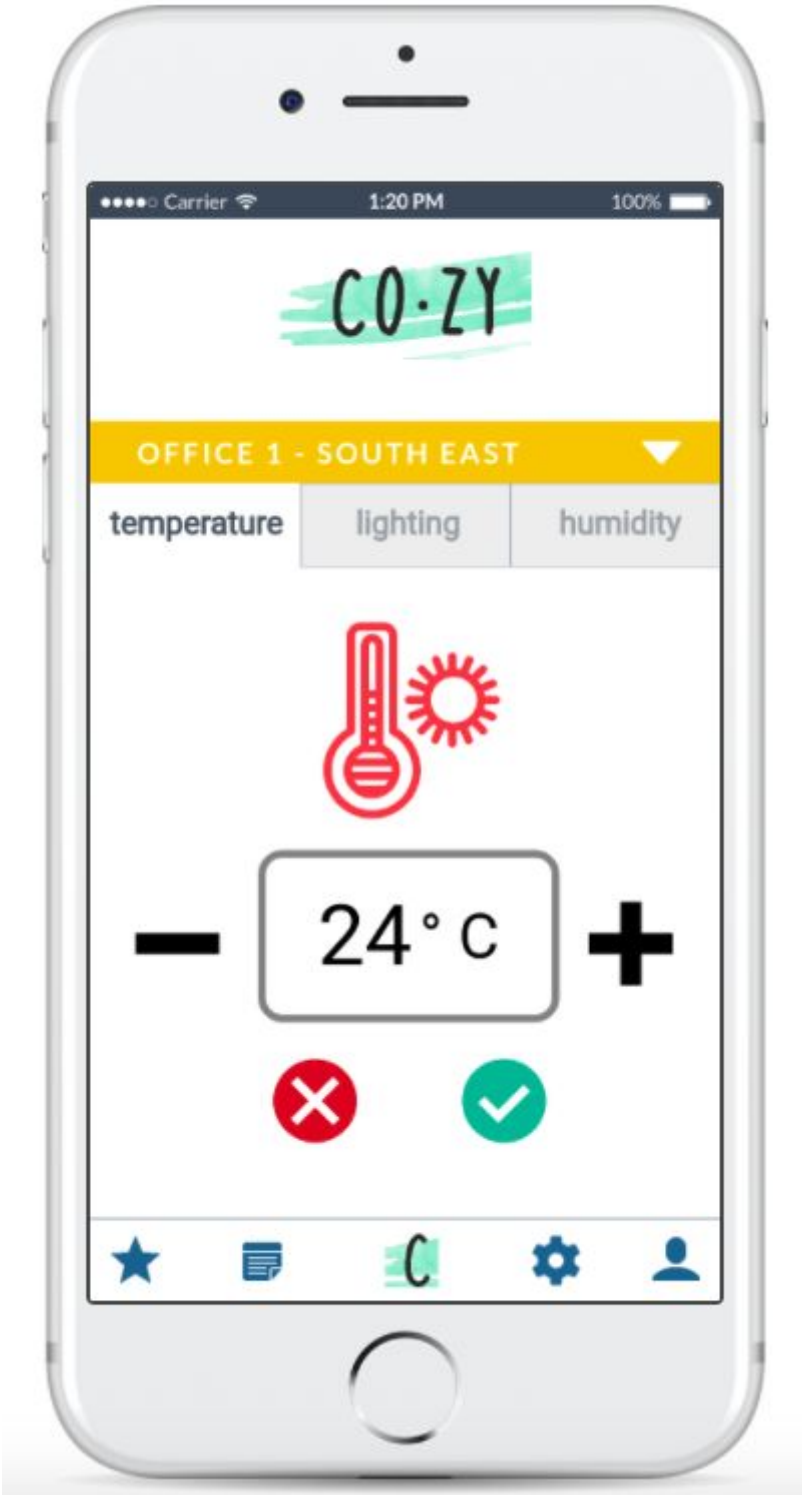


Edit icon/button colours indicate what will aspect of the thermostat will be changed in the room.

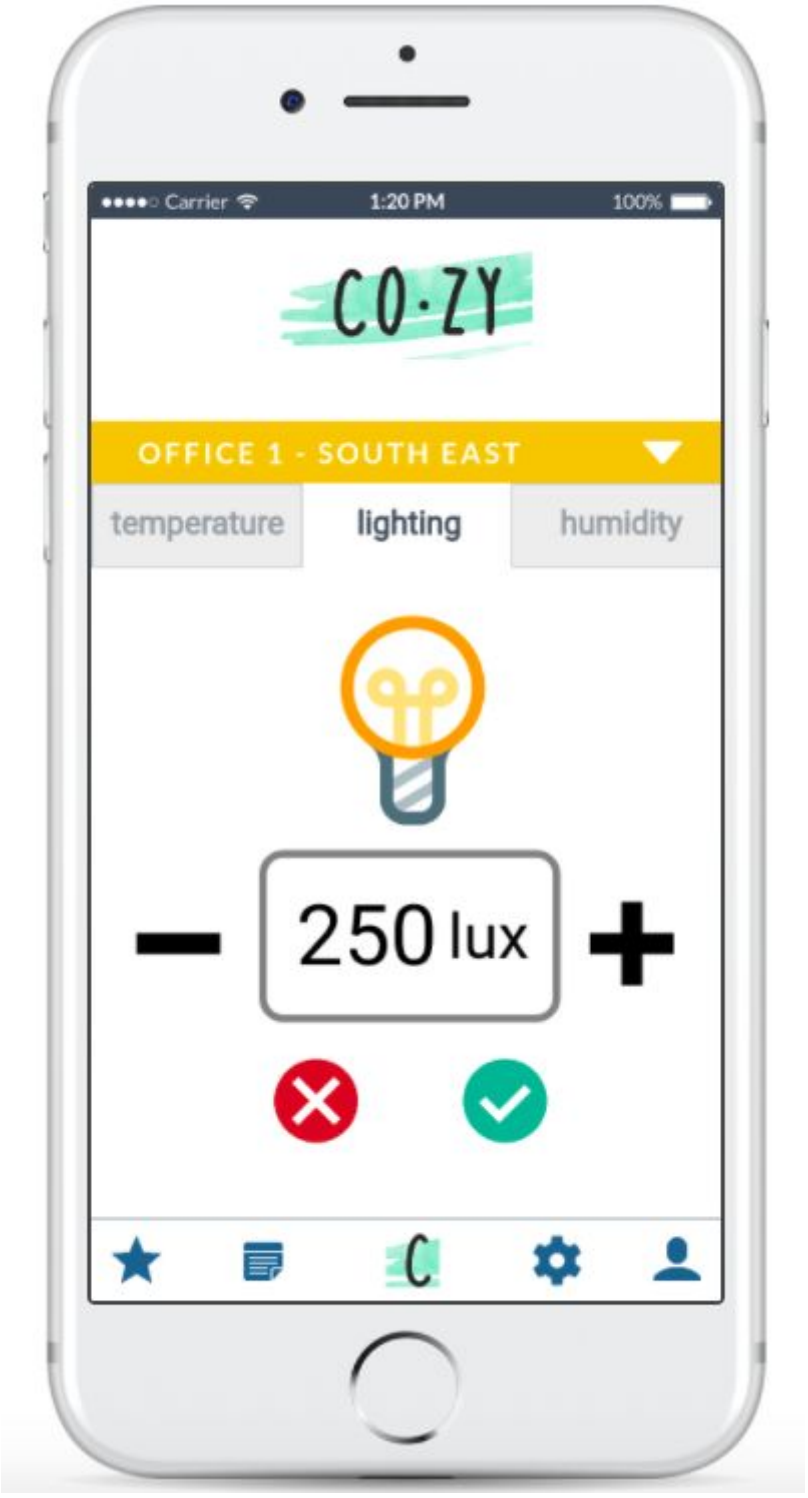

Carrier
1:20 PM
100%
CO·ZY
OFFICE 1 - SOUTH EAST
temperature
lighting
humidity
24 °C
250 lux
40 %
You can navigate
through the app by
tapping on these icons:

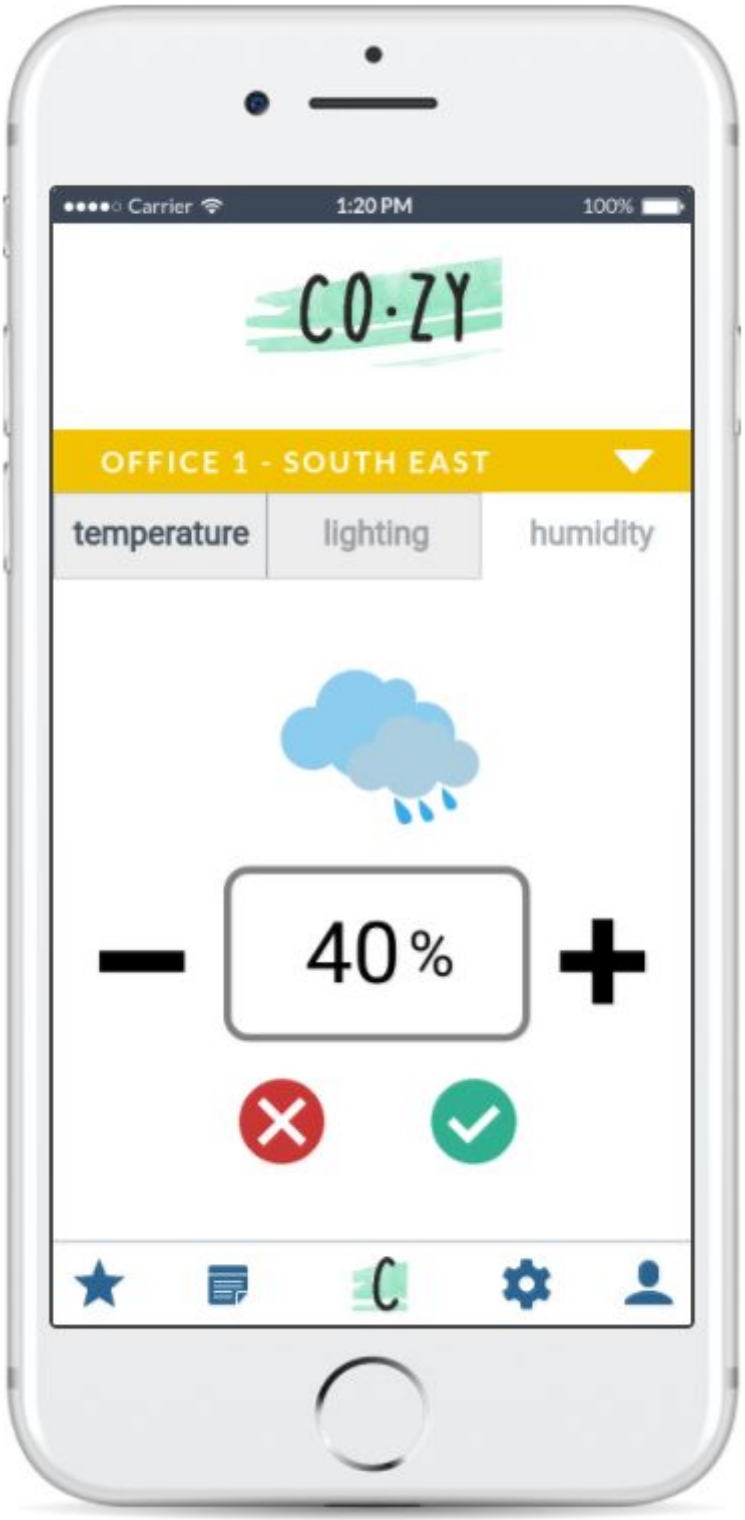


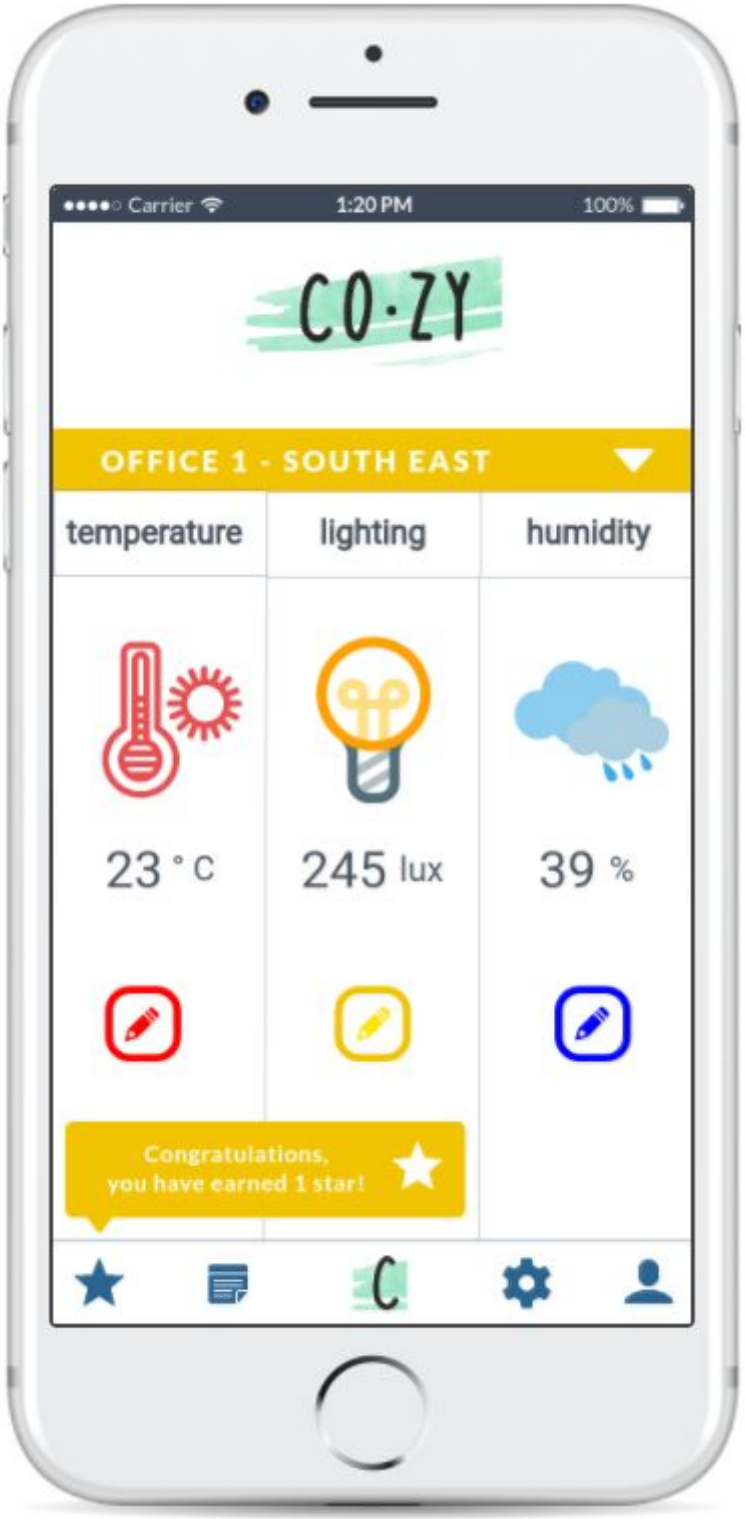
The dashboard will be shown for the room that the user has selected as their starting office room.



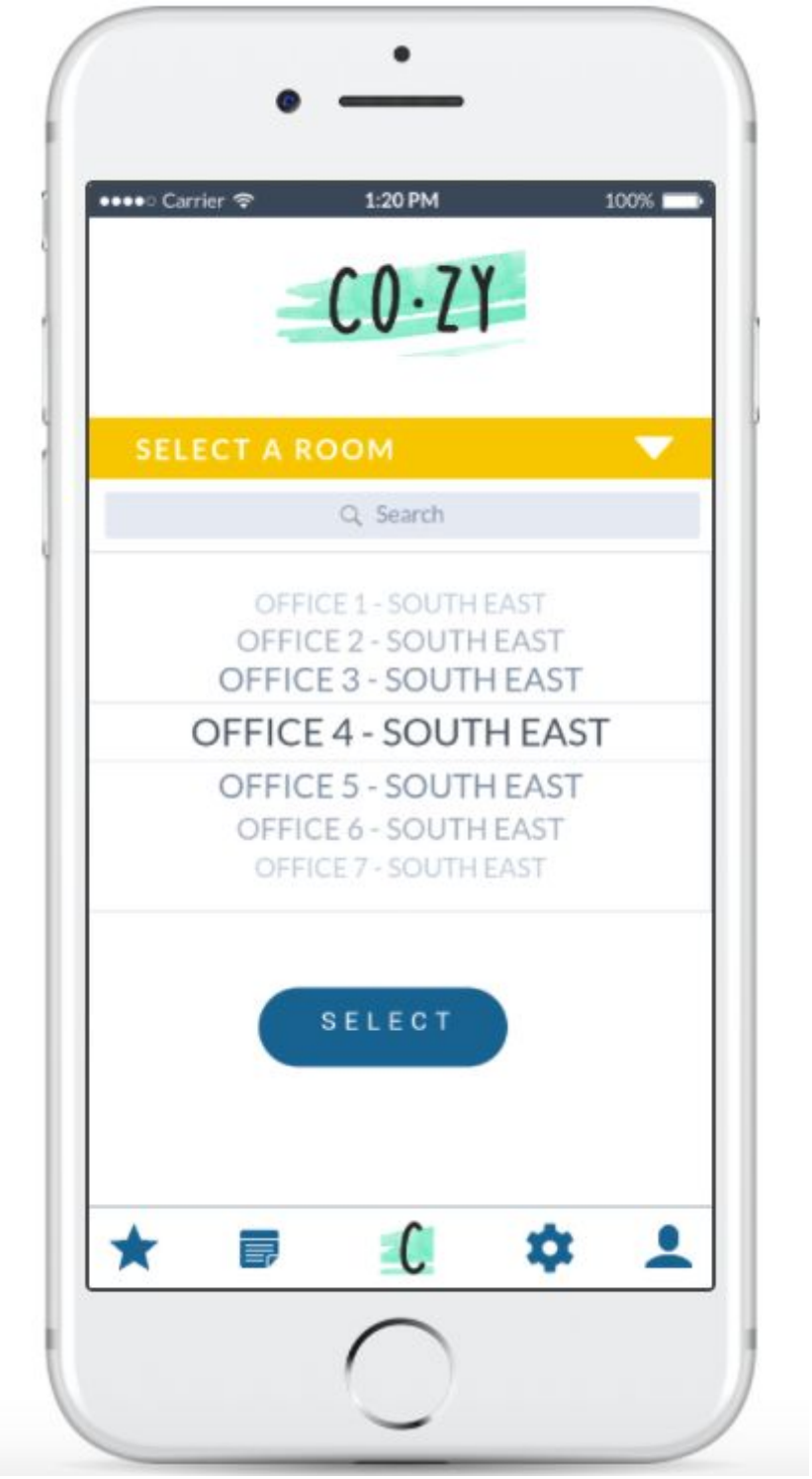
The user can change the temperature of the current room. If they decide to cancel this option, they can click on the red **X** button to return to the dashboard without making any changes.


Carrier
1:20 PM
100%
CO·ZY
OFFICE 1 - SOUTH EAST
temperature
lighting
humidity
250 lux

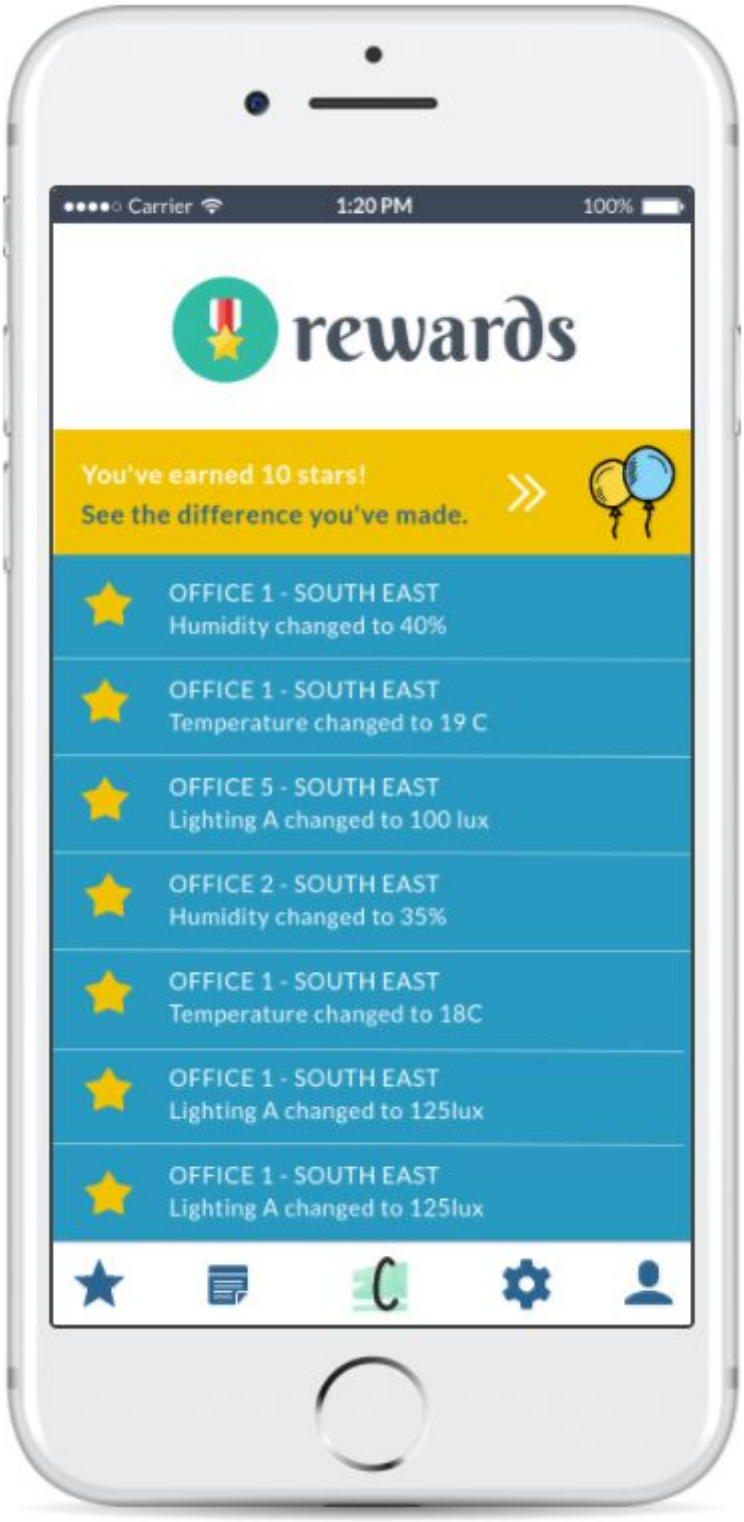

Carrier
1:20 PM
100%
CO·ZY
OFFICE 1 - SOUTH EAST
temperature
lighting
humidity
40%



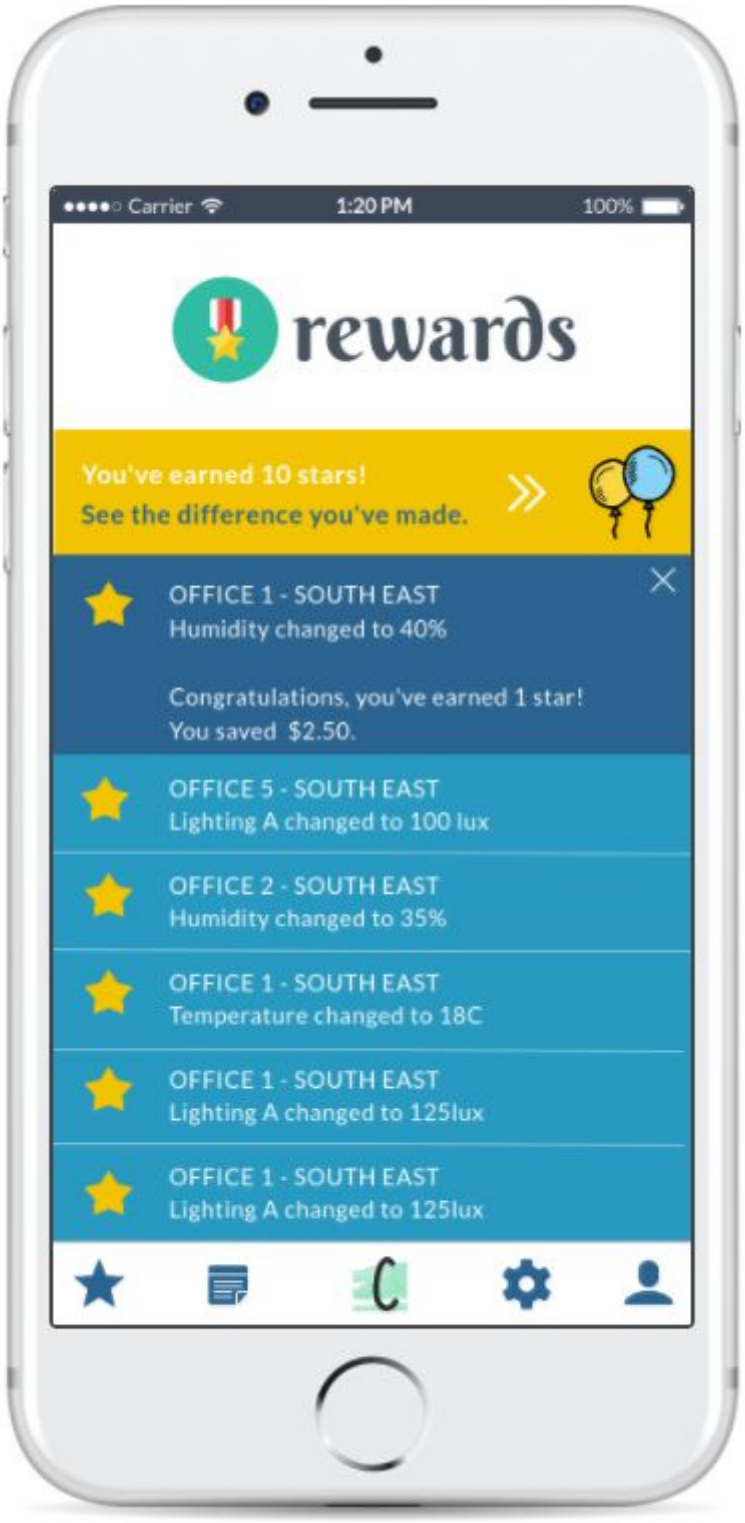
After a user decreases a number on the dashboard menu, it means that they are saving energy. When the user commits to this change (presses the check mark icon), a small pop-up will appear on the Dashboard letting the user know they have earned 1 star. If the user clicks on the message or the Rewards icon below it, it will send them to an updated Rewards page with their changes, plus more details on what this change means (e.g. You have saved $2.50 by changing the temperature to 15C).



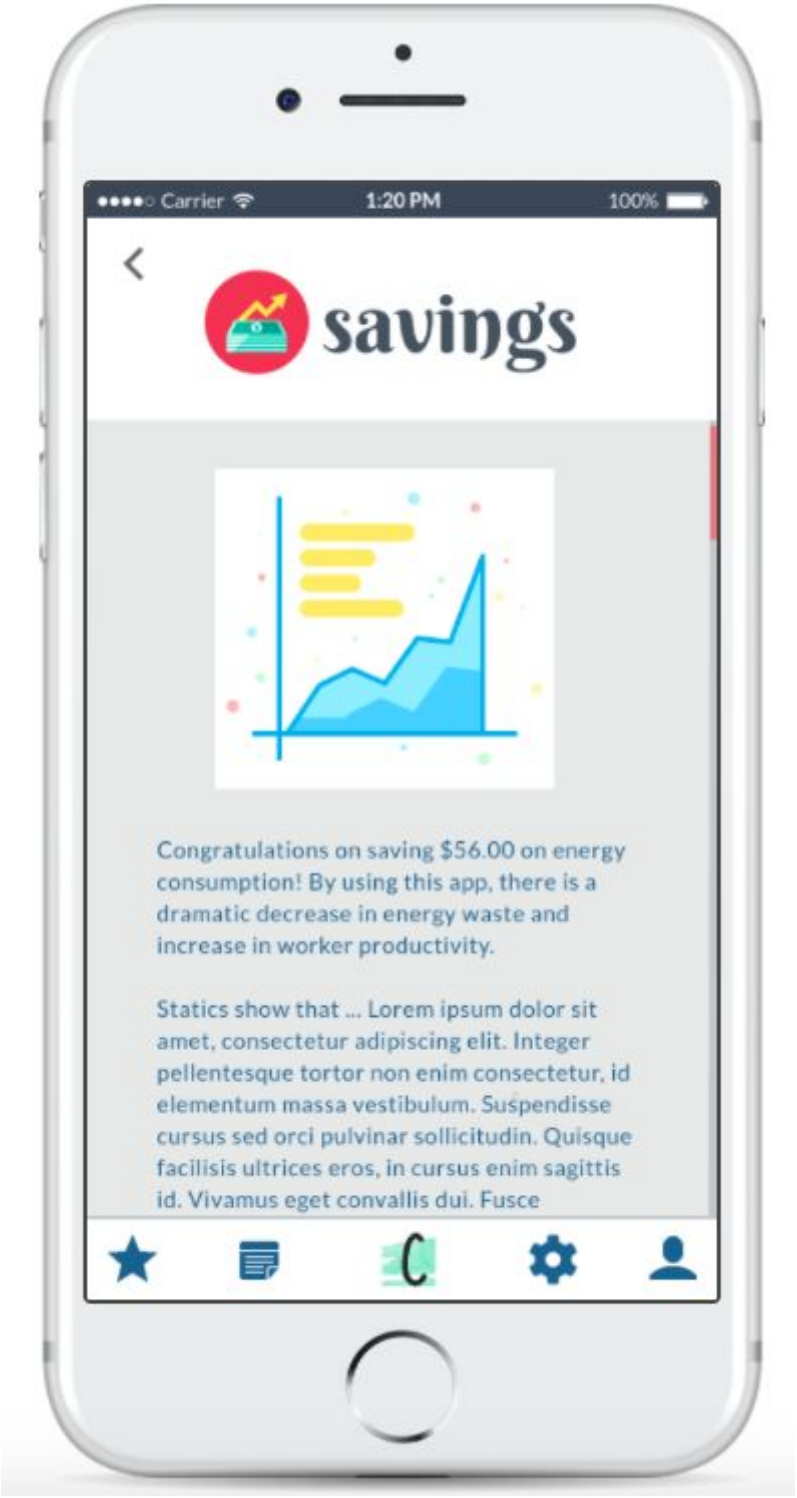
Selecting a new room will bring up this screen that the user can have the option of either scrolling through a fisheye list, or manually Search for their room of choice by typing it in. The list is easy to get to nearby rooms, while the Search function gives more freedom to select farther rooms.



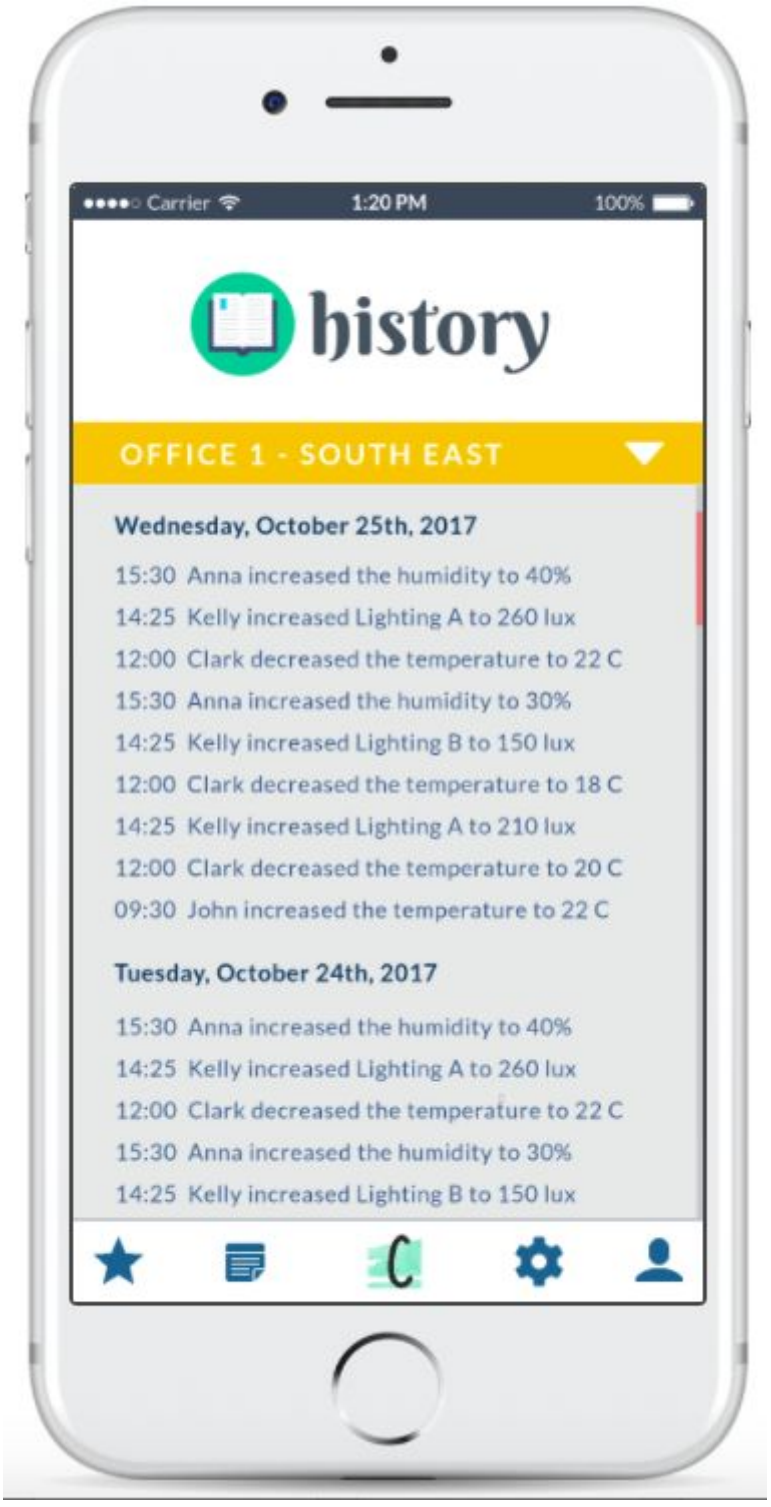
The Rewards section will show the user how many stars they have accumulated and what changes they have made to earn that star.



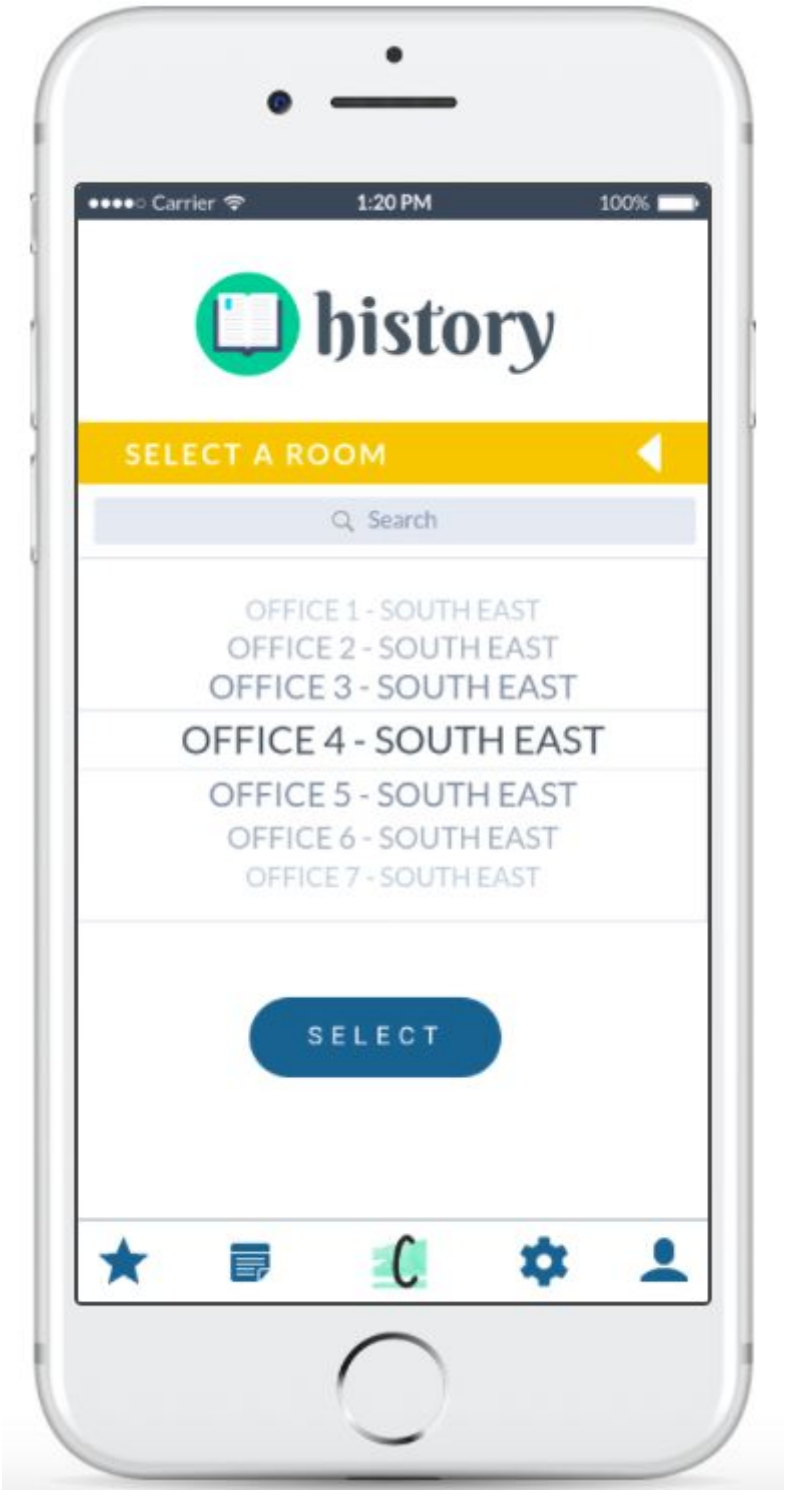
Clicking on these will show the $ dollar amount that was saved for this 1 action. On the top, there is a message that tells the user how many total stars they have earned and what this means. 2 arrows further suggests that this can be interacted with.



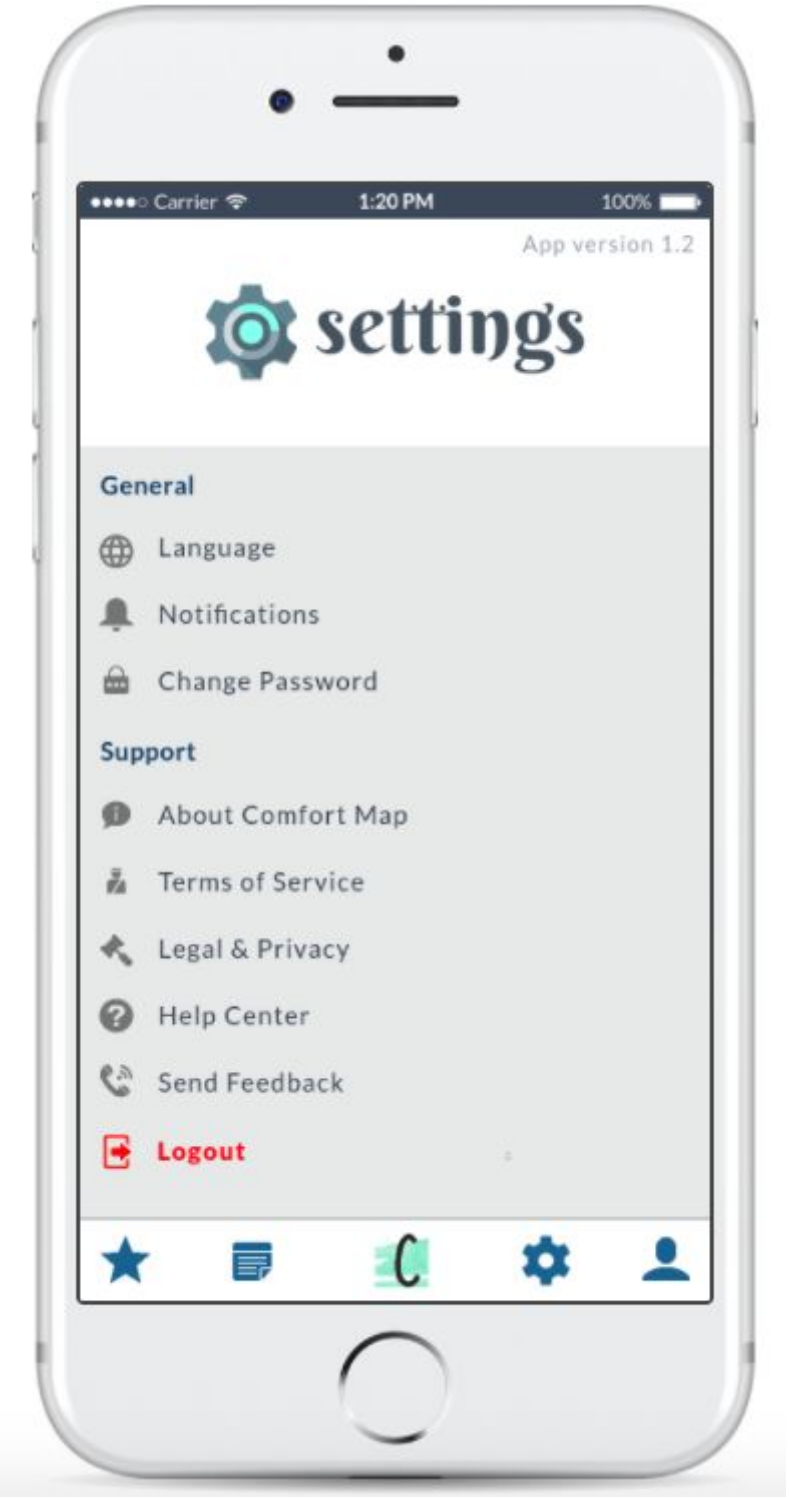
By clicking on the message, the user will be taken to another screen for further, in-depth analysis of their impact on the environment, the building HVAC costs, etc. while using our app.



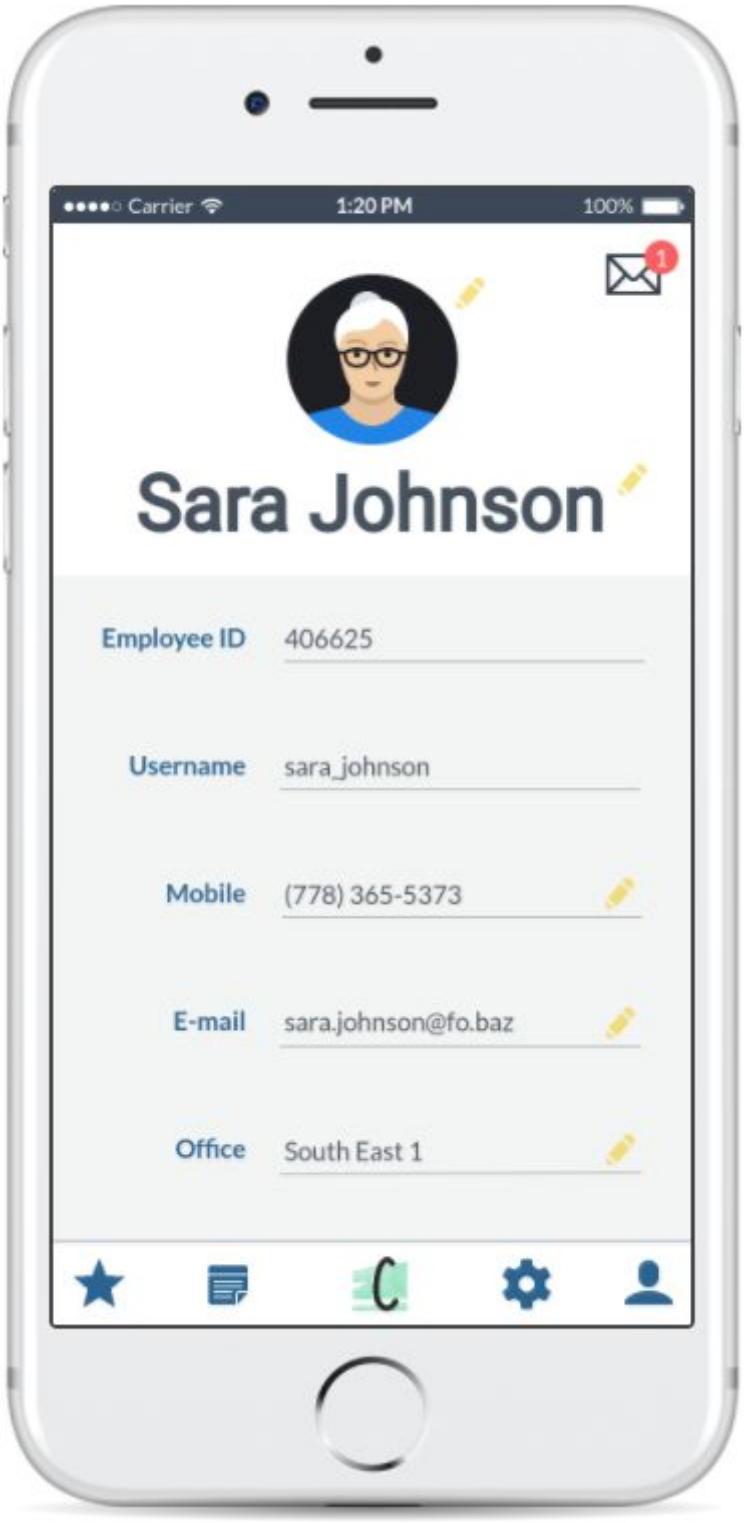
Room history shows the exact changes different users have made to the selected room. This is mainly to keep all users accountable for their actions and management is able to see who exactly forgot to turn off the heater in Office 1 SE over the long weekend.



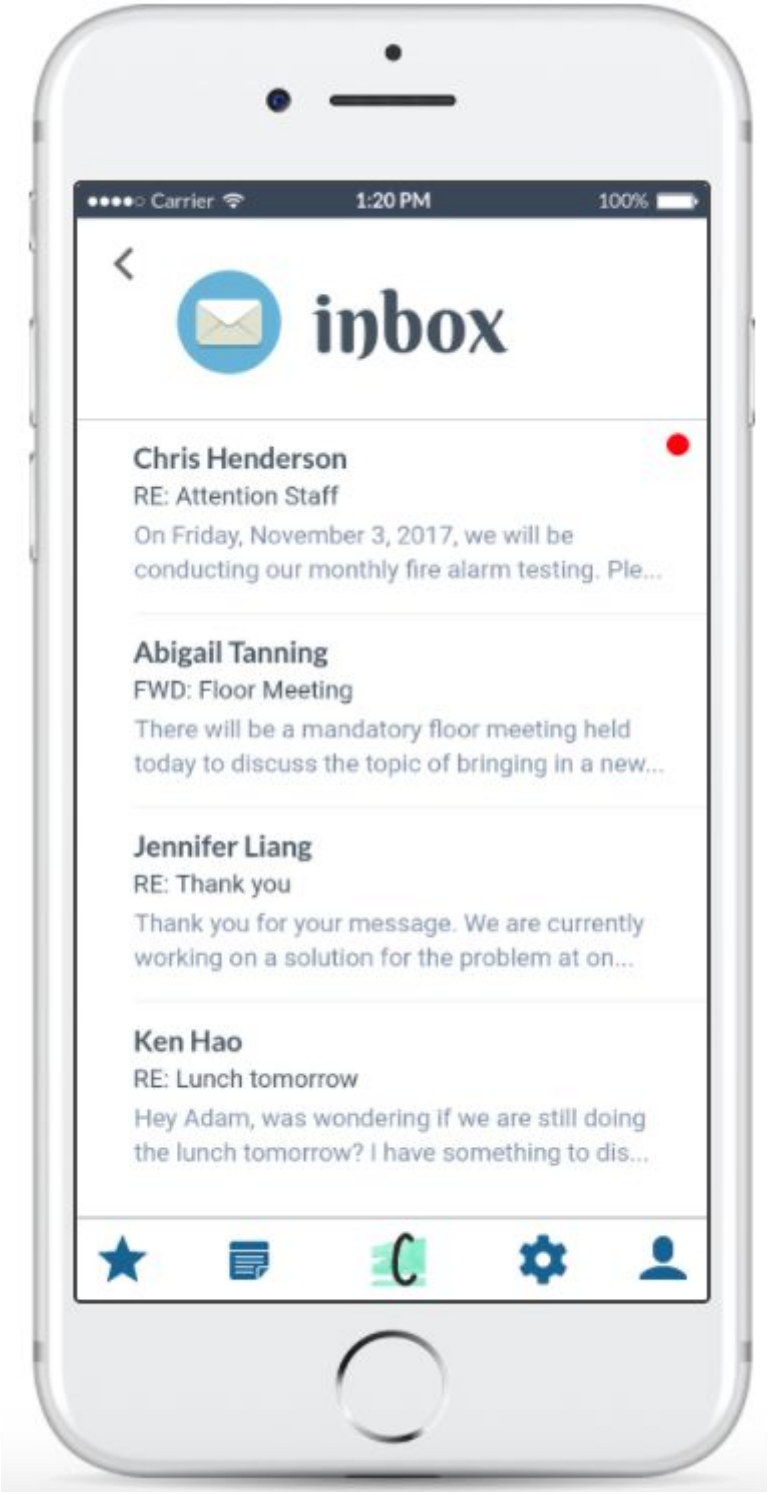
Different room change histories can be shown dependent on what room the user selects. This is the same process as the room selection screen from the Dashboard.



Users are able to do a number of things on the Settings screen, including logging out of their app, sending app feedback to our team, or to contact us or management through the Help Center. Users who are more comfortable using another language can change the app language settings. The process of making the Settings screen presented some challenges. Through comparison of other app settings screens on Facebook and Instagram, we felt that the link list and screen layout made sense.



Users are able to edit any information besides their employee ID and username, including changing their profile photo and name (e.g. in case Adam Smith gets married and takes his partner's last name or changes his name altogether). A mail notification icon on the top right indicates that Adam has a new message to read, and tapping it will lead him to his Inbox.



The inbox is an additional place where employees and management can communicate with each other for work-related issues and discussions. This is useful if the user would like contact management directly over a specific topic for new updates or to ask a minor question. The layout of their Inbox is formatted like an iPhone messages area, to give the user more familiarity over its usage.