Heart Home Assistant

HCI 594 Capstone Project Design Document

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Home Assistant

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Overview

Motivation · Background · Objective · UX Goals

Motivation

- Selecting long-term care for a loved one can be a daunting and overwhelming task

- Most of the information available can leave caregivers feeling overwhelmed and confused

Background

- 2.7 million people will be in nursing homes by 2040 [5]

- Decision may arrive suddenly following hospitalization or gradually over time [4]

- Individuals may be given a list of facilities recommended by a hospital or care provider for a starting point

- Both state and federal agencies offer ratings and data about facilities

- While many sites offer a wealth of information, often, caregivers rely on multiple resources to find answers to their questions

- Cost is a major consideration but varies widely and is difficult to determine [4]

- Long-term care can cost an average of $70,000 per year [4]

Objective

How can we improve the process of finding the best care for our loved ones?

User Experience Goals

- Put the caregiver at ease with the research process

- Give the caregiver confidence in their decision

- Present complex information in a manner that is easy to understand and digest

- Provide the caregiver options to refine their search to better support their individual needs and preferences

- Create a community where users can provide feedback and ratings for homes and see other reviews

- As this process will likely evolve over many sessions, give the caregiver a way to save their work and retrieve previously viewed information
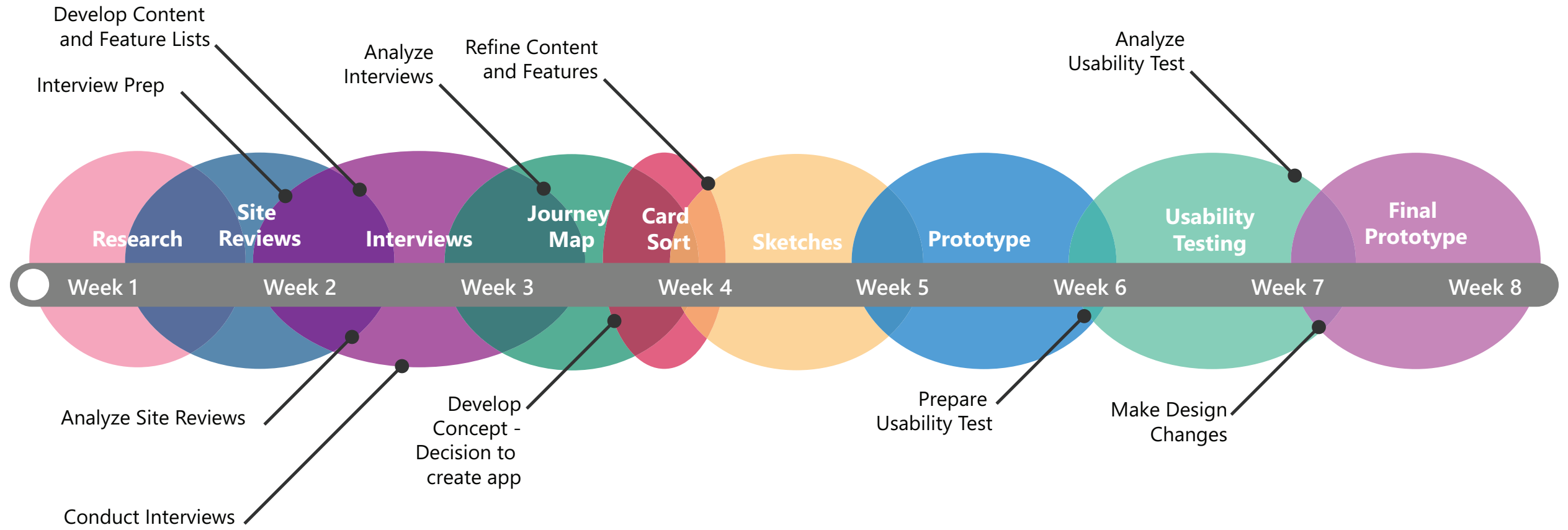
Design Process

Overview • Participants • Learn about the Process of Selecting Long-Term Care

Review Competitor Sites • Interviews with Caregivers and an Expert

The Caregiver's Journey Through the Process • Organize Site Visit Checklist Items

Ideate the Interface Design: Sketches, Mock-Ups & Prototype • Testing the Prototype with Users

Overview of Design Process

Develop Content and Feature Lists

Interview Prep

Analyze Interviews

Refine Content and Features

Analyze Usability Test

Research

Site Reviews

Interviews

Journey Map

Card Sort

Sketches

Prototype

Usability Testing

Final Prototype

Week 1   Week 2   Week 3   Week 4   Week 5   Week 6   Week 7   Week 8

Analyze Site Reviews

Develop Concept - Decision to create app

Prepare Usability Test

Make Design Changes

Conduct Interviews

Participants in Design Process

Participant	Age	Search		Interview	Card Sort	Usability
P1	50s	2006	Assisted care and nursing home for both parents	♥		
P2	50s	2015	Nursing home for father	♥	♥	♥
P3	40s	2013/2015	Assisted care for mother	♥	♥	♥
P4	60s	2015	Rehab for spouse		♥	♥
P5	30s	2013	Hospice facility for mother			♥
P6	20s	2005/2009	Nursing home for grandparents	♥	♥	
P7	50s	2016	Rehab for father	♥		♥
P8	30s	Currently	Nursing home for mother	♥	♥	♥
P9	50s	2013	Nursing home for mother	♥		
P10	50s	2016	Rehab for father		♥	
P11	70s	2016	Rehab for spouse			♥
P12	30s	Currently	Nursing home for mother			♥
E1	40s		Aging case worker for the state family caregiver program	♥		

We recruited participants through friends, family and coworkers. Our participants were currently searching for a facility for a loved one or had searched in the past.

Learn about the Process of Selecting Long-Term Care

Performed Google search for articles and resources with information about long-term care.

Impact

Gave us a better understanding of the process and an appreciation for how overwhelming it is.
Helped us to structure the interview questions around the process steps.

Research

Procedure

Performed online searches for articles and information about long-term care. See resources, page 76.

Findings

- Overview of care facility search process

Decision
to go to
a facility

Search
for facilities that
match needs
and wants

Add
facility
to short list

Visit
short-listed
facilities

Select
the best facility
for their
loved one

Research

Findings (cont.)

- Advice on navigating the process and information that is important to consider
  - Reach out to physicians, hospital social workers, long-term care ombudsman, advocacy groups, friends and family for guidance and support
  - Choose a place that is close for friends and family to visit
  - Choose a place the fits with the family member needing care
  - Consider overall quality ratings, health inspections and staffing
  - Review license and complaint information through state department
  - Visit the home, more than once both announced and unannounced, to get a feel for how welcoming it is
  - Investigate thoroughly to determine the true costs
- Resources are in many places
  - Medicare.gov for ratings and reports
  - Other rating and resource sites such as USNews and ProPublica
  - State departments and websites
  - Social workers, ombudsman and advocacy groups

Review Competitor Sites

Selected 4 competitor sites and answered 8 competitive questions.

Impact

Identified opportunities to strategically position our product.

Site Reviews

Procedure

- Reviewed four sites
    - Medicare.gov Nursing Home Compare [9]
    - HealthGrove Compare Nursing Homes [7]
    - US News Best Nursing Homes [10]
    - A Place for Mom [6]

- Questions asked:
    - What features seem interesting or appealing?
    - What options were provided for the initial search for a long-term care facility?
    - Are there any options to refine the search?
    - Does the site facilitate comparing options easily?
    - Does the site provide a way to save facilities in which the person is interested?
    - What information is shown about the facilities in the initial search results?
    - What information is provided for each facility overall?
    - Does the site offer any reviews?

Analysis

- Compared each site based on review questions and identified opportunities
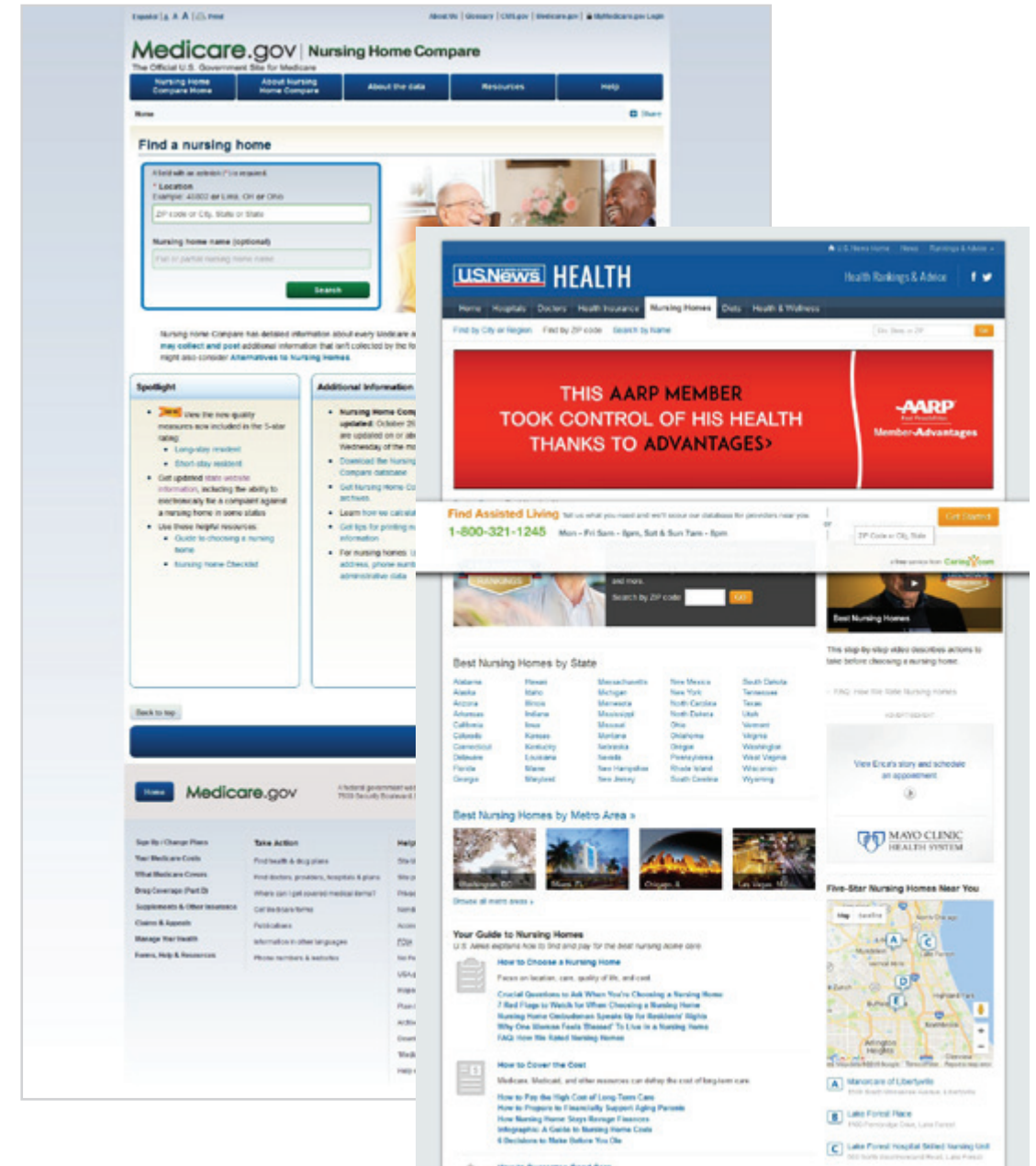
Site Reviews

Findings

- Most all of the online search sites start with location

- Filters to refine choices were lacking

- Information was generally overwhelming and typically presented as data and statistics (exception HealthGrove)

- Some sites had a compare feature to compare ratings and information

- Sites did not offer a way for user to rate how they felt about a facility based on their own preferences

- Couple of sites offered ability to add homes to a list; required a login to do so

- Encountered major usability issues when trying to save homes to list on Medicare.gov

- Few sites offered user reviews

Site Reviews

Strategic Opportunities

- Provide robust search filters to narrow options based on needs and preferences

- Provide an easy way to save preferred homes to a list

- Provide a way for individuals to keep track of information during their research that is important to them

- Provide a way for individuals to rank their choices on their list

- Present government ratings and information in a way that is more consumable

- Provide user reviews

Interviews with Caregivers and an Expert

One-on-one guided discussions with real people to learn about their experiences.

Impact
Journey map showing caregiver's path through process.
Concept to build a connected website and app to support the caregiver throughout the search process.

Interviews

Participants

8 1 expert; Have or currently searching for care facility

Procedure

- Created a script with 20 questions to lead discussion about entire process, beginning to end
- For each step in process, asked about experiences and feelings
    - What was most important to you?
    - Where did you turn to for help?
    - What resources were most helpful?
    - How did you feel?
- Interviewed 5 one-on-one and 3 by phone
- Took notes by hand
- Interviews generally lasted 1 hour

Interviews

Analysis

- Compiled notes for each question
- Organized responses and feelings around stages of the search process
- Identified common themes and combined results from each interview

Key Finding

- Site visit was the most critical factor in making a final decision

Additional Findings

- People found the information available to be overwhelming
- People relied on feedback from family and friends about homes to consider
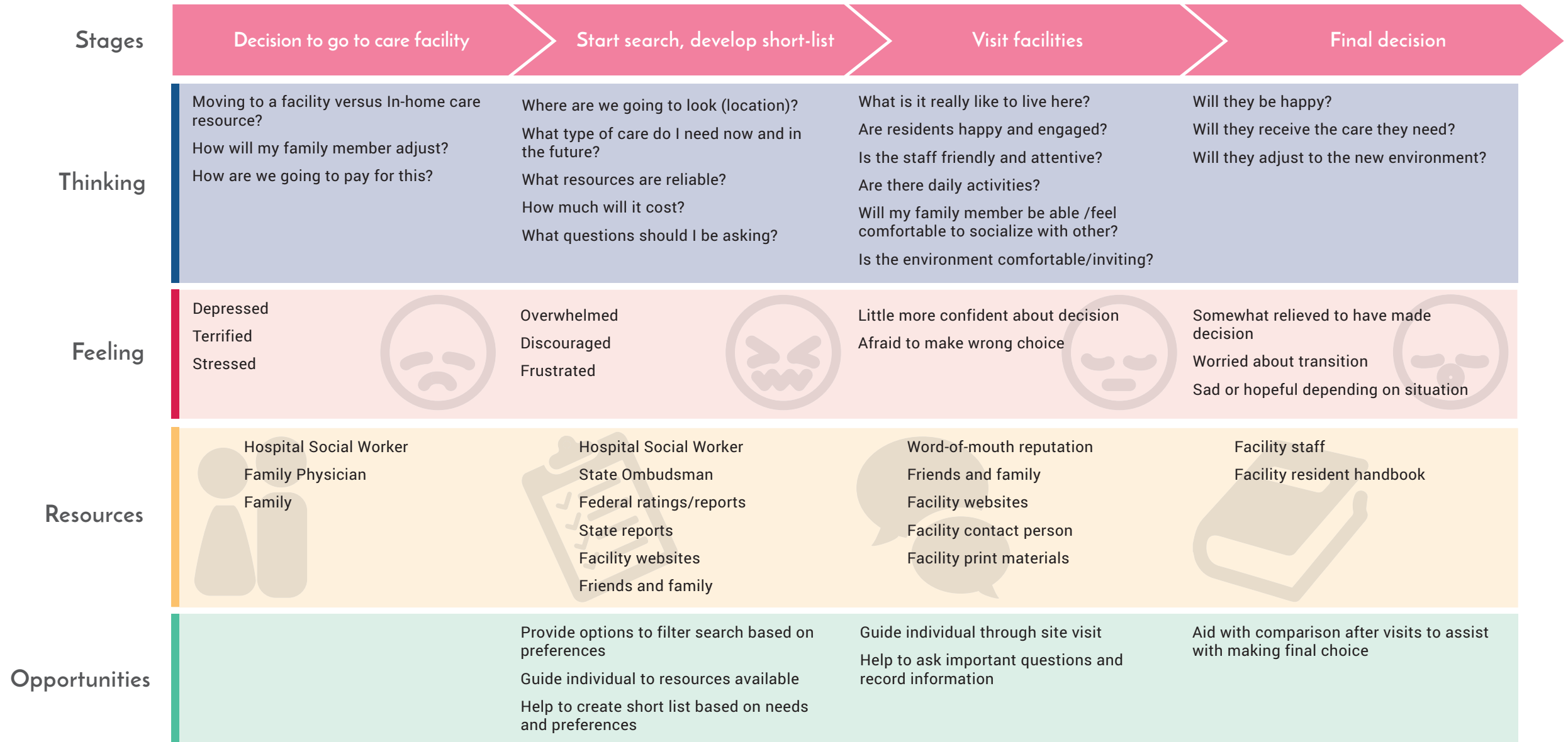- Process is overwhelming and stressful, very emotional

Caregiver's Journey Through the Process

Created a journey map to visualize the process of selecting a long-term care facility.

Impact

Identified opportunities to support the process.

Journey Map

Stages	Decision to go to care facility	Start search, develop short-list	Visit facilities	Final decision
Thinking	Moving to a facility versus In-home care resource? How will my family member adjust? How are we going to pay for this?	Where are we going to look (location)? What type of care do I need now and in the future? What resources are reliable? How much will it cost? What questions should I be asking?	What is it really like to live here? Are residents happy and engaged? Is the staff friendly and attentive? Are there daily activities? Will my family member be able /feel comfortable to socialize with other? Is the environment comfortable/inviting?	Will they be happy? Will they receive the care they need? Will they adjust to the new environment?
Feeling	Depressed Terrified Stressed	Overwhelmed Discouraged Frustrated	Little more confident about decision Afraid to make wrong choice	Somewhat relieved to have made decision Worried about transition Sad or hopeful depending on situation
Resources	Hospital Social Worker Family Physician Family	Hospital Social Worker State Ombudsman Federal ratings/reports State reports Facility websites Friends and family	Word-of-mouth reputation Friends and family Facility websites Facility contact person Facility print materials	Facility staff Facility resident handbook
Opportunities		Provide options to filter search based on preferences Guide individual to resources available Help to create short list based on needs and preferences	Guide individual through site visit Help to ask important questions and record information	Aid with comparison after visits to assist with making final choice

Organize Checklist Items

Used a hybrid card sort activity to organize site visit checklist items into categories that are meaningful to users.

Impact

Developed 8 categories for site visit checklist items.
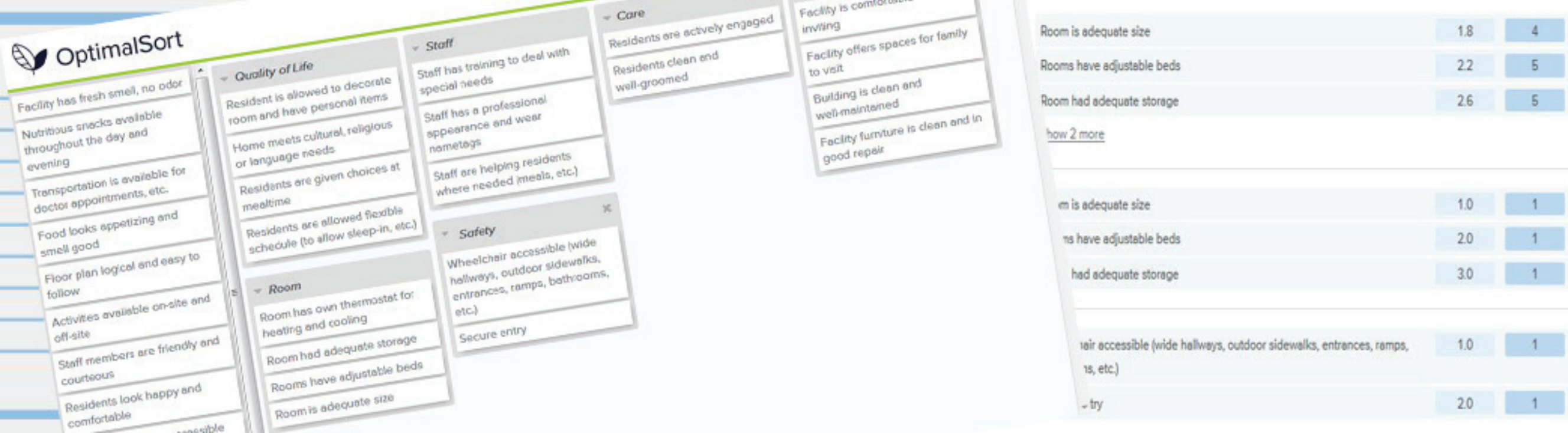
Hybrid Card Sort

Participants

6

4 interviewees   plus 2 more

Have or currently searching for care facility

Procedure

- Hybrid Card Sort using OptimalSort (free version)
- Chose 30 representative items from our research to create cards (free version limited to 30)
- Provided some initial categories (Facility/Amenities, Room, Staff, Care and Quality of Life)
- Allowed participants to also create their own categories
- Included post-task survey
    - Did you feel anything was missing?
    - Did the predetermined categories make sense to you?

Hybrid Card Sort
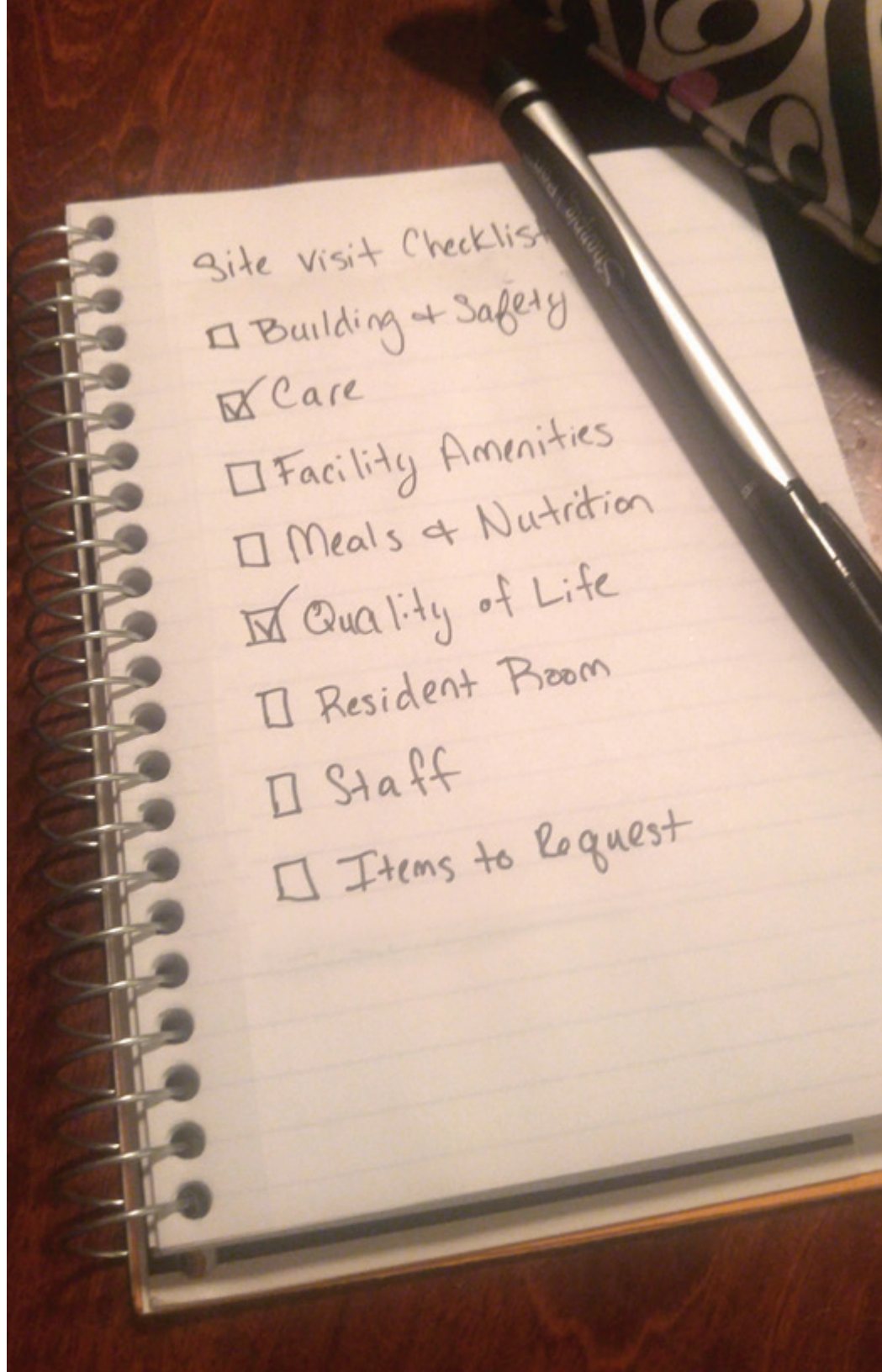
Analysis
- Optimal sort showed the categories into which the participants sorted the cards
- Reworked the predetermined categories to represent the categories the participants provided

Findings
- Safety was an important consideration to include
- Facility appearance was considered separate from amenities

Results
- 8 categories for checklist items
    - Building/Safety
    - Care
    - Facility Amenities
    - Meals and Nutrition
    - Quality of Life
    - Resident Room
    - Staff
    - Items to Request

Ideate the Interface Design: Sketch, Mock-Up and Prototype

Sketch some designs to ideate solutions. Develop mock-ups with more detail. Build the prototype.

Impact

Creation of prototype for Heart Home Assistant app that demonstrates flow and functionality.
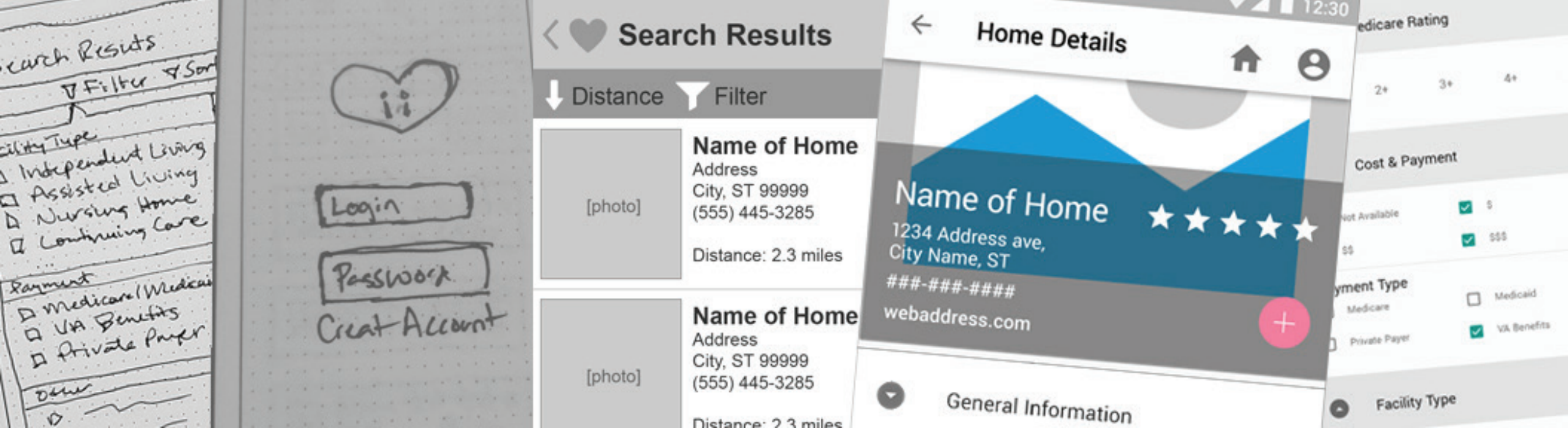
Sketch, Mock-Up & Prototype

Procedure

- Wrote task scenarios
- Identified screens needed to support the scenarios, content and features
- Created initial sketches by hand
- Created conceptual mock-ups to include more detail
- Merged ideas from team members
- Created an interactive prototype using Marvelapp

Testing the Prototype with Users

Performed usability testing to determine if the app is easy to use and get user feedback.

Impact

Identified any issues and made design changes to improve app.

Usability Testing

Participants

Moderated

8 4 interviewees plus 4 more
Have or currently searching for care facility

Unmoderated

5 Peers
Human-Computer Interaction Graduate Students

Procedure

- Usability test included 5 task scenarios each with post-task questions
- Test was followed by a 6-question wrap-up survey
- Moderated Tests
  - 5 completed in-person using mobile prototype on moderator's phone
  - 3 completed online using screen-sharing software and web-based prototype
  - Moderator took notes by hand using script template
- Unmoderated peer tests
  - Completed independently online
  - Individual followed instructions and entered responses into a Google form

Usability Testing

Analysis

- Each individual test was reviewed to compile a list of issues that were encountered and suggestions that were provided from the participants during the testing

- Results from the moderated sessions were entered into the Google survey in order to aggregate the questions with rating and satisfaction responses

- Compiled a list of general feedback and comments from the wrap-up survey

Usability Testing – Task Scenario #1

Find a home in a pretend zip code that accepts VA benefits and has a private room.
View the details for a top-rated home. View the general information for this home.

Objectives

- Perform basic search
- Identification and use search filters to narrow results
- Identification and use of sort feature
- Recognition of top-rated homes
- Evaluation of Search Results screen and Search options
- Evaluation of Home Details screen

92% found the search results to be organized

100% said the search results were usefull

91% found the search filters usefull

82% said the home details was organized

92% found the home details to be usefull

Usability Testing – Task Scenario #1

Observations and Feedback

- All participants found the search icon and completed a search

  - Some were confused by the lengthy intro text on the My Homes screen

  - 2 participants were confused by the 'Search Near Me' button on the Search page; tried to use as submit button

  - Most users were confused by the submit button being on the keyboard and not on the form

- Most participants found and used the search filters

  - A few participants in the moderated study had trouble finding the filter icon

  - 2 participants didn't find the filter options in the unmoderated study

- None of the participants used the sort feature on the search page to sort the homes by rating

  - In moderated test, we asked follow-up about the sort feature, majority had issues identifying this option

"I really like the clean and simple visual design of this app, especially the filter page."

"Overall nicely done, I think the search page could use more content such as a map or something to show proximity."

"Enough information to gage what's important."
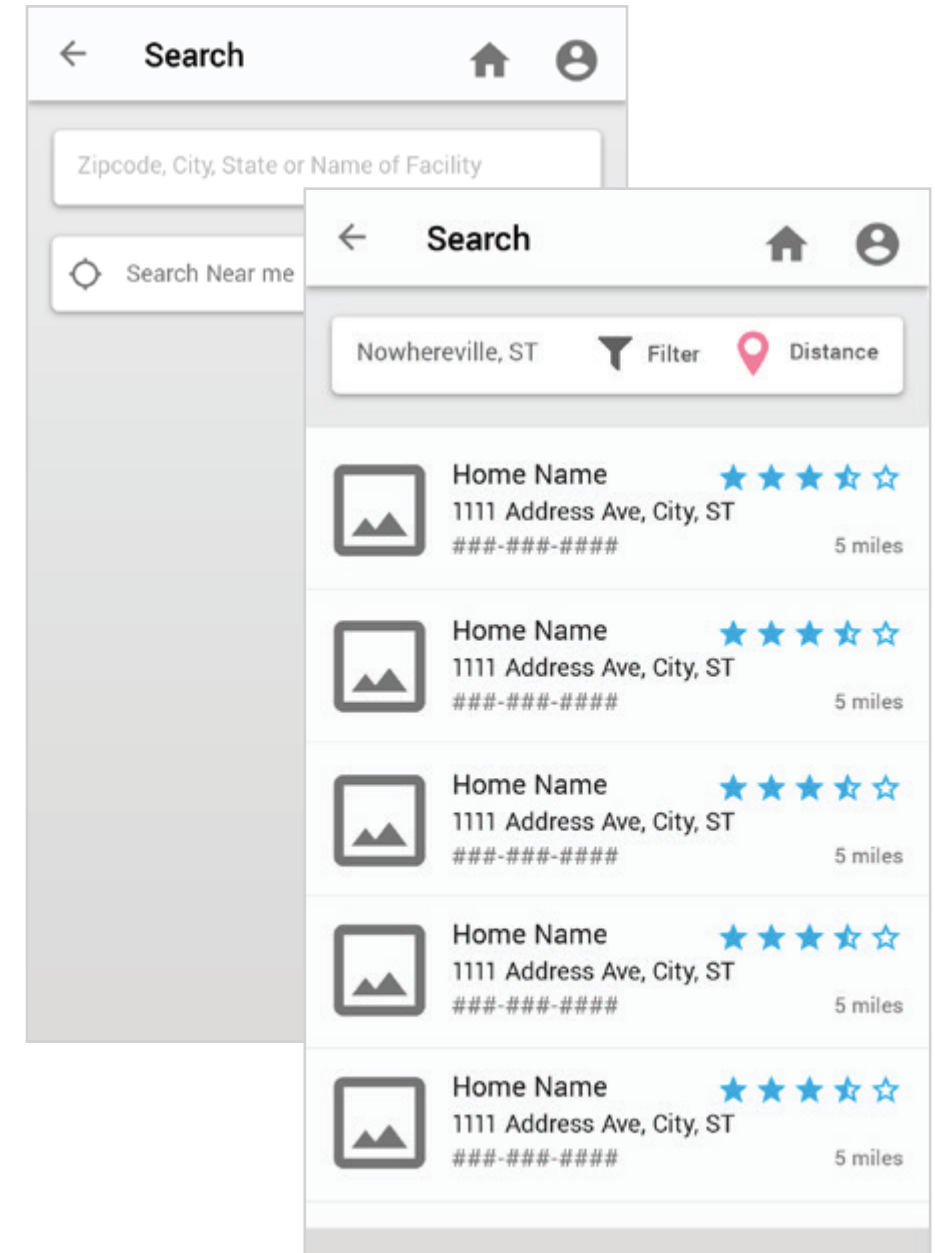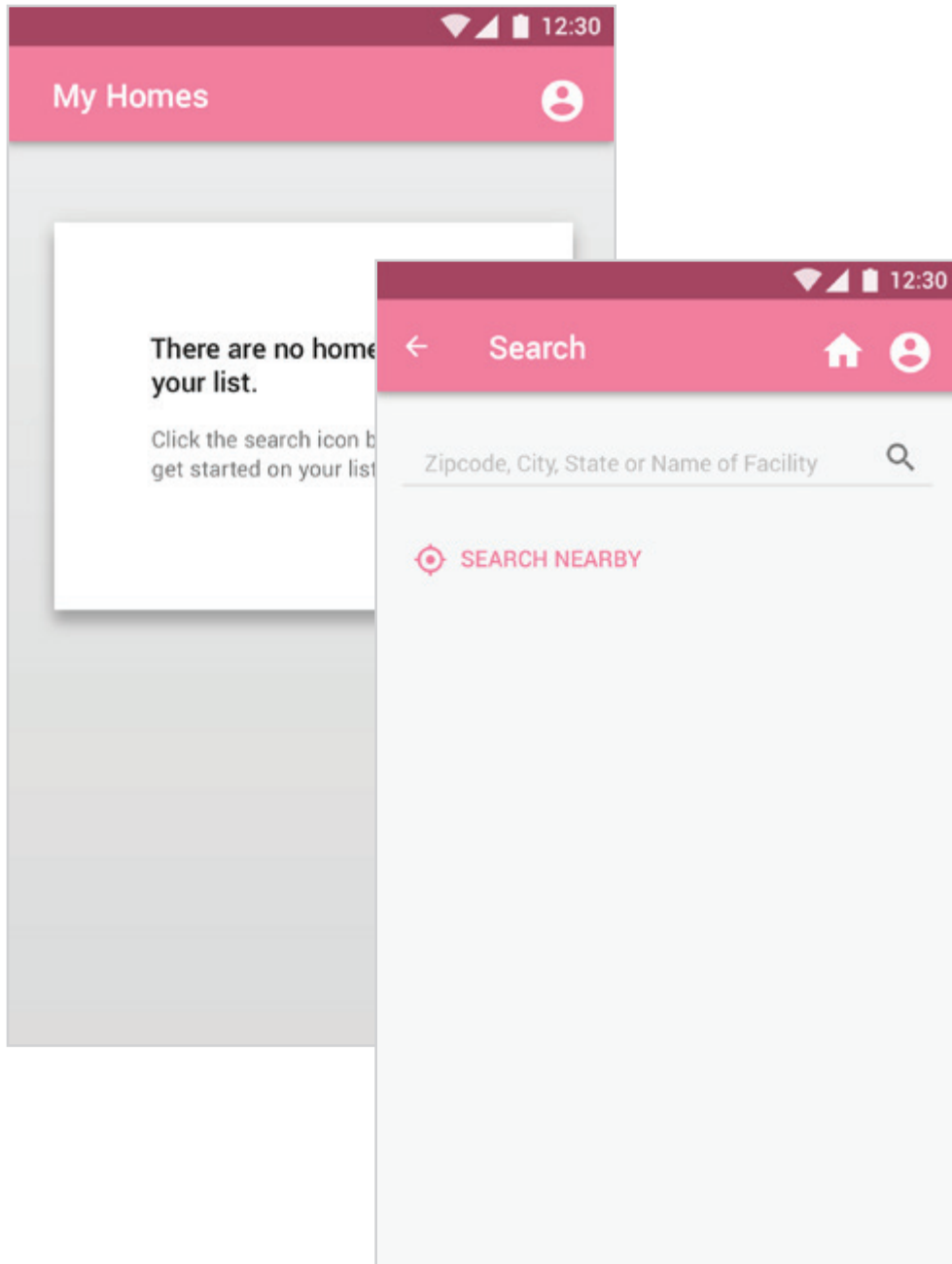
Usability Testing – Task Scenario #1

Design Changes

My Homes screen with "no homes"

- Shorten intro message

- Remove back arrow at top

Search screen
- Modify to make submit option to make more clear

- Make distinct from 'Search Nearby' option
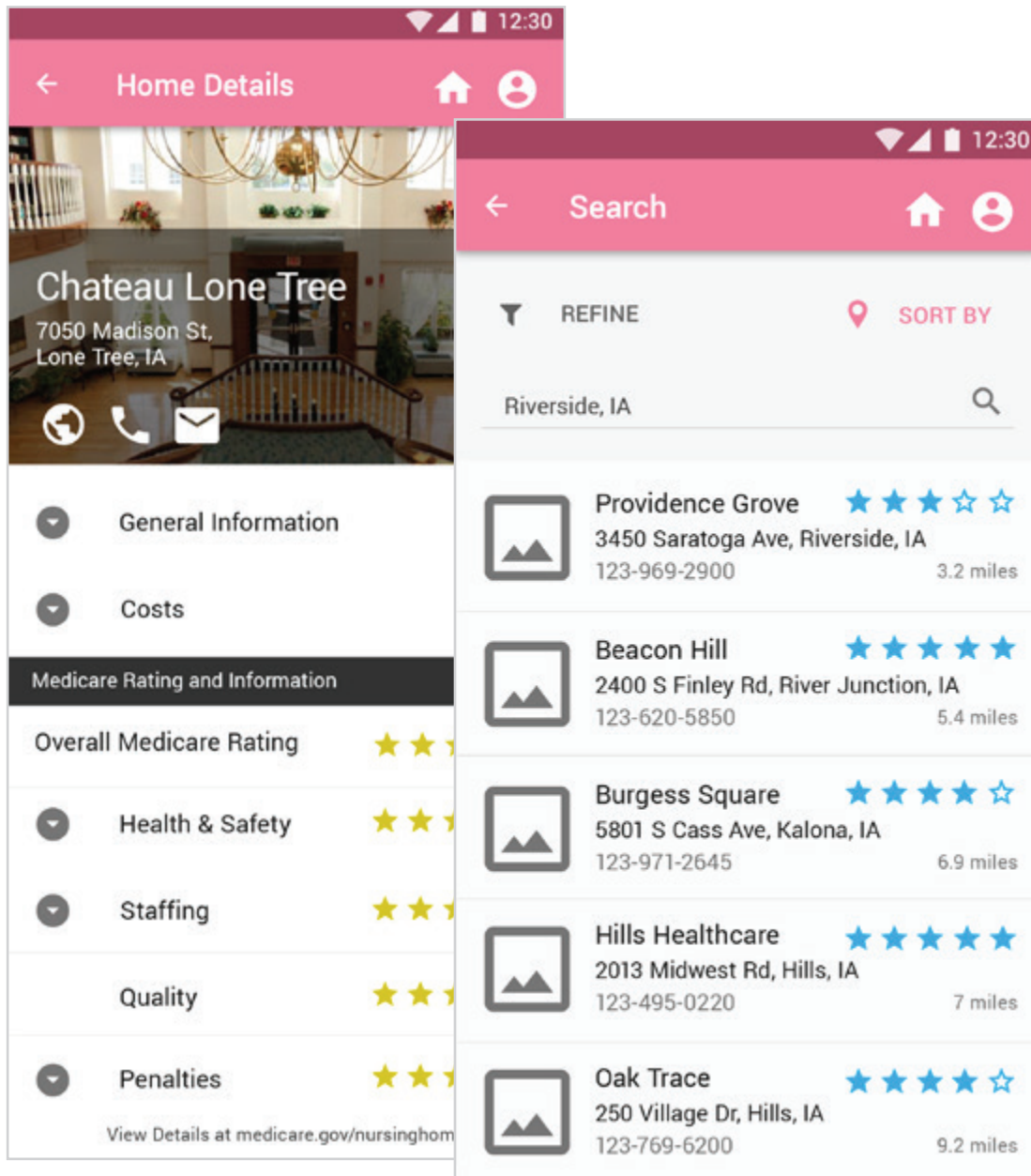
Usability Testing – Task Scenario #1

Design Changes (cont.)

Search Results screen

- Change "Filter" to "Refine"

- Modify sort to make function more clear

Home Details screen

- Identify star ratings as Medicare ratings

- Consider ways to make the Medicare information source more apparent; possibly use subheading, "Medicare Review/Ratings" grouping or footnote in each section

Usability Testing – Task Scenario #2

Add the top-rated home to your list. Return to the My Homes screen.

Objectives

- Identification of option to add/save home
- Recognition of feedback that home was added
- Use of Home icon to navigate to My Homes screen
- Evaluation of My Homes screen

100%
of participants successfully added a home

100%
found My Homes was organized

100%
said My Homes was usefull

Usability Testing – Task Scenario #2

Observations and Feedback

- Most participants easily completed the task of adding a home
  - Some participants commented on the icon changing to a checkmark
- Most participants identified the Home icon to navigate to the My Homes screen
  - Some were confused by the Home icon; not sure where it would go

"Now I have a to-do list."

"Gives you a place to start."
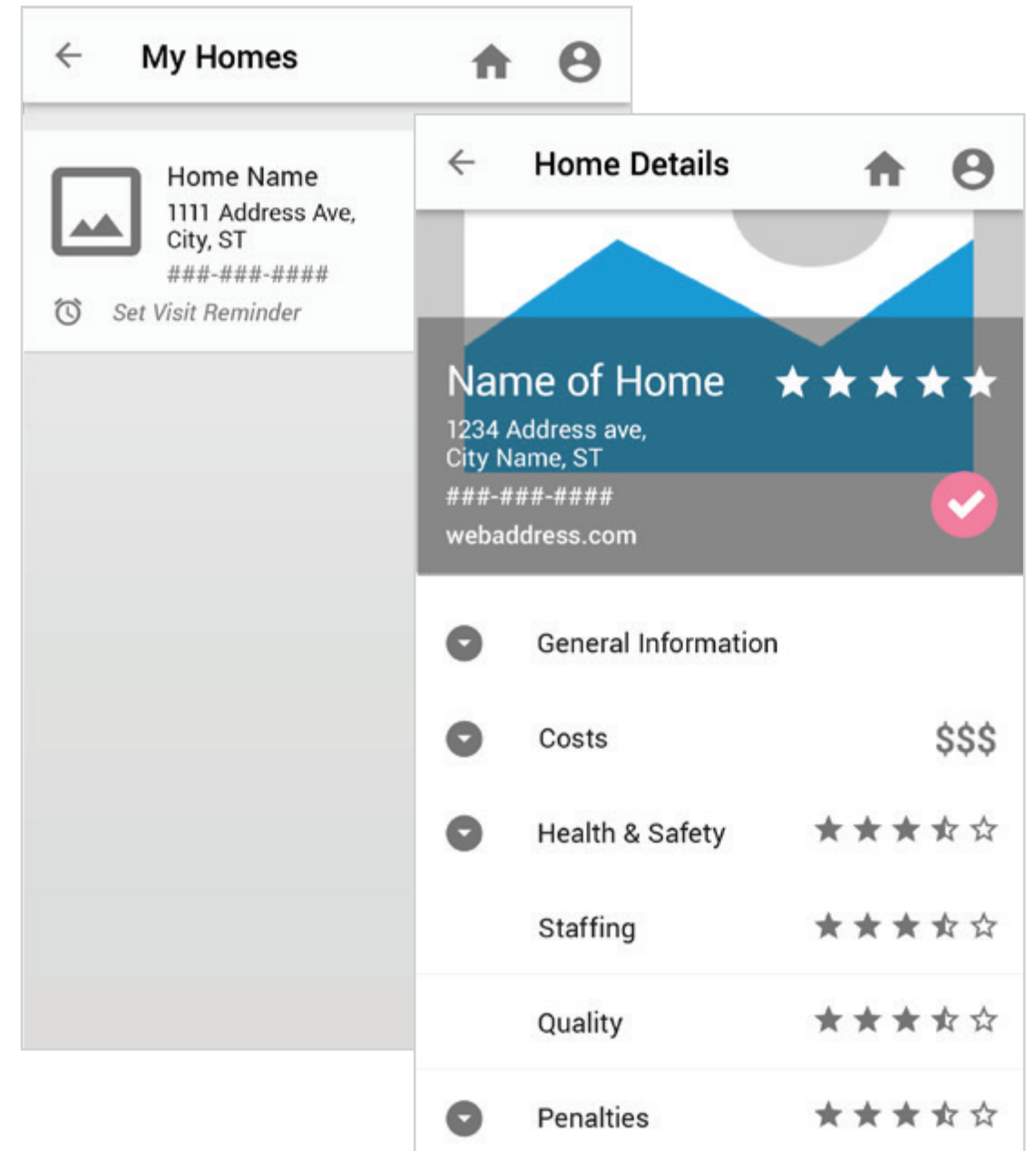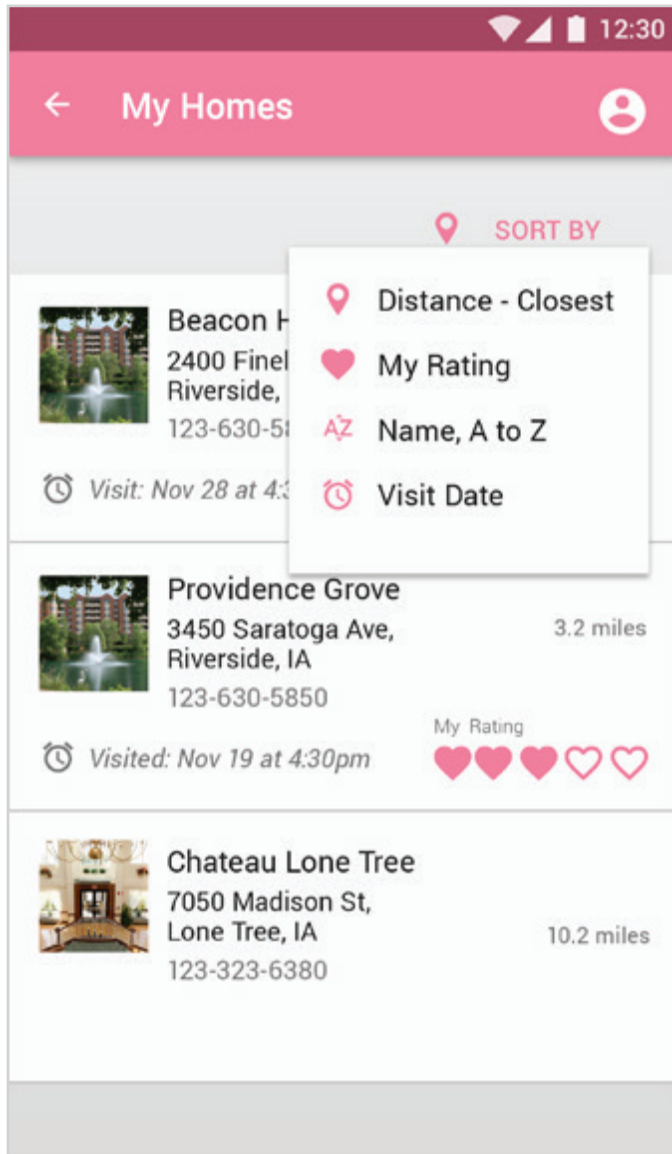
Usability Testing – Task Scenario #2

Design Changes

My Homes screen
- Add distance

- Add option to sort by distance, my rating, name or date visited

Usability Testing – Task Scenario #3

Heart Home Assistant allows you to set a reminder for your visit. You have scheduled a site visit for the home on your list for November 17. Set a reminder for your site visit, then return to My Homes.

Objectives

- Identification of option to set Site Visit Reminder

- Successful navigation to this option

- Successful completion of task to set reminder

- Recognition of feedback that reminder was set

100% successfully completed this task
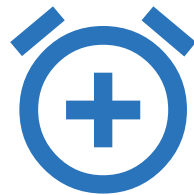
100% found the site visit reminder to be useful

Usability Testing – Task Scenario #3

Observations and Feedback

- Most participants completed this task easily

  - Most participants clicked/tapped on the 'Set Site Visit Reminder' text on the My Homes screen

  - Not all participants noticed the Reminder Date on the Home Evaluation screen after set

  - All participants noticed the Site Visit Reminder on the My Homes screen

"Gives you accountability. She says she's slacking on going to visits, so it's a nice feature to have."

"Add also to my calendar on my phone so I can seeing upcoming visits in calendar format."

"Oh my gosh you guys, this would be great."
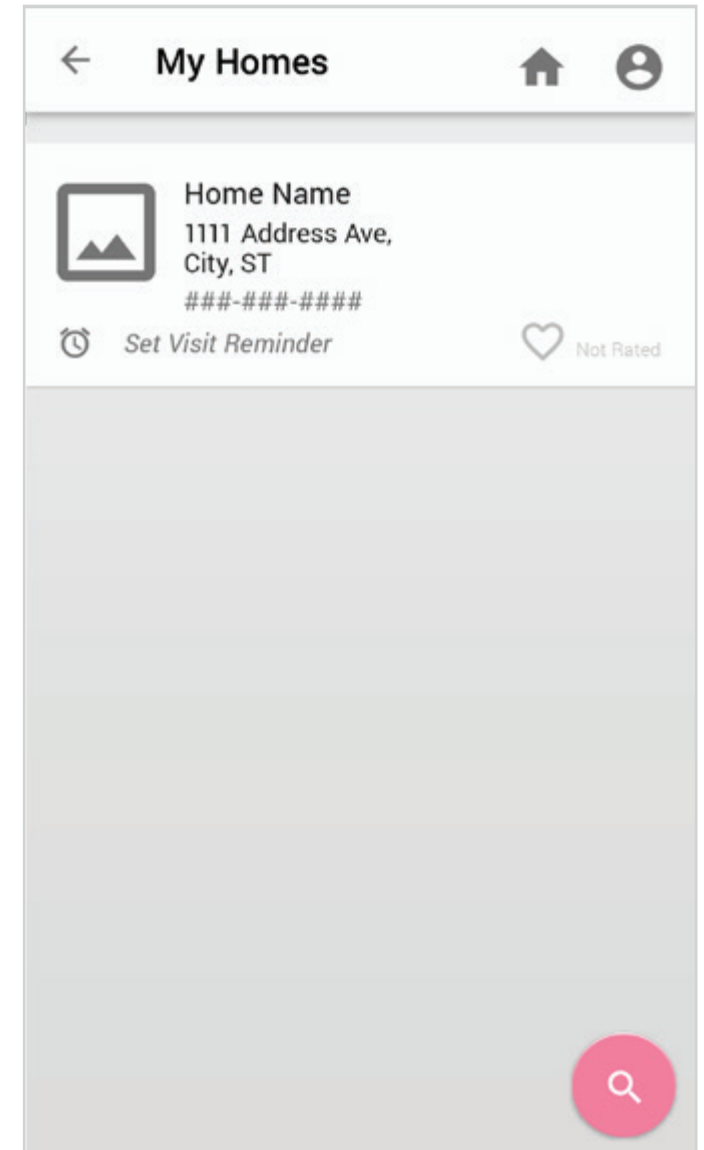
Usability Testing – Task Scenario #3
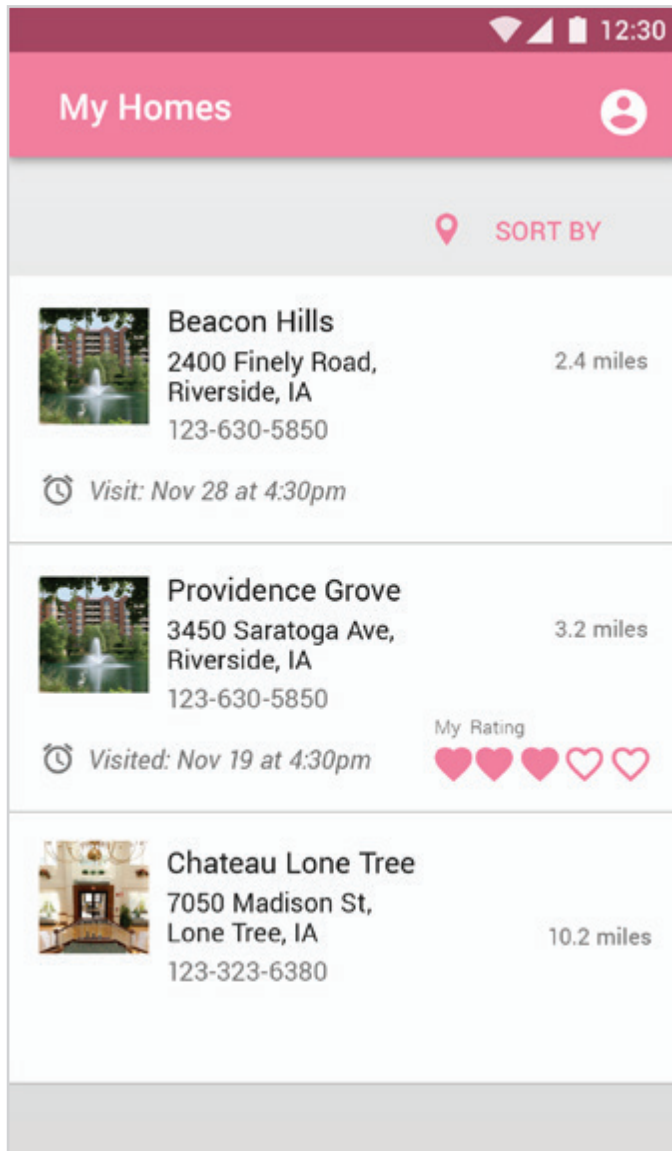
Design Changes

My Homes screen
- Remove icon for 'Set Site Visit Reminder' on card
  - Participants expected this to go directly to the "Set Site Visit Reminder" screen
  - Fat-finger problem would cause issues with trying to link this area directly to the screen

Usability Testing – Task Scenario #4

Before going on your site visit, it is recommended that you familiarize yourself with the site visit checklists. Review the checklist items for the home on your list. Return to the Home Evaluation screen for that home.

Objectives

- Navigation to Home Evaluation screen
- Identification of checklists
- Feedback on checklists
- Evaluation of Home Evaluation screen
- Recognition of feature to rate home

100% found the Home Evaluation to be organized

100% said the checklists were organized

73% didn't think the checklists were too long

91% identified where to rate home

Usability Testing – Task Scenario #4

Observations and Feedback

- Most participants easily completed this task
  - A couple of participants tried to tap/click on the "Site Visit Checklist" subheading
  - A few participants did not realize there were 8 checklists at first
- Most participants immediately suggested the hearts for where they would rate the home
  - A couple said they weren't sure, but they think it's the hearts
  - One required guidance from the moderator
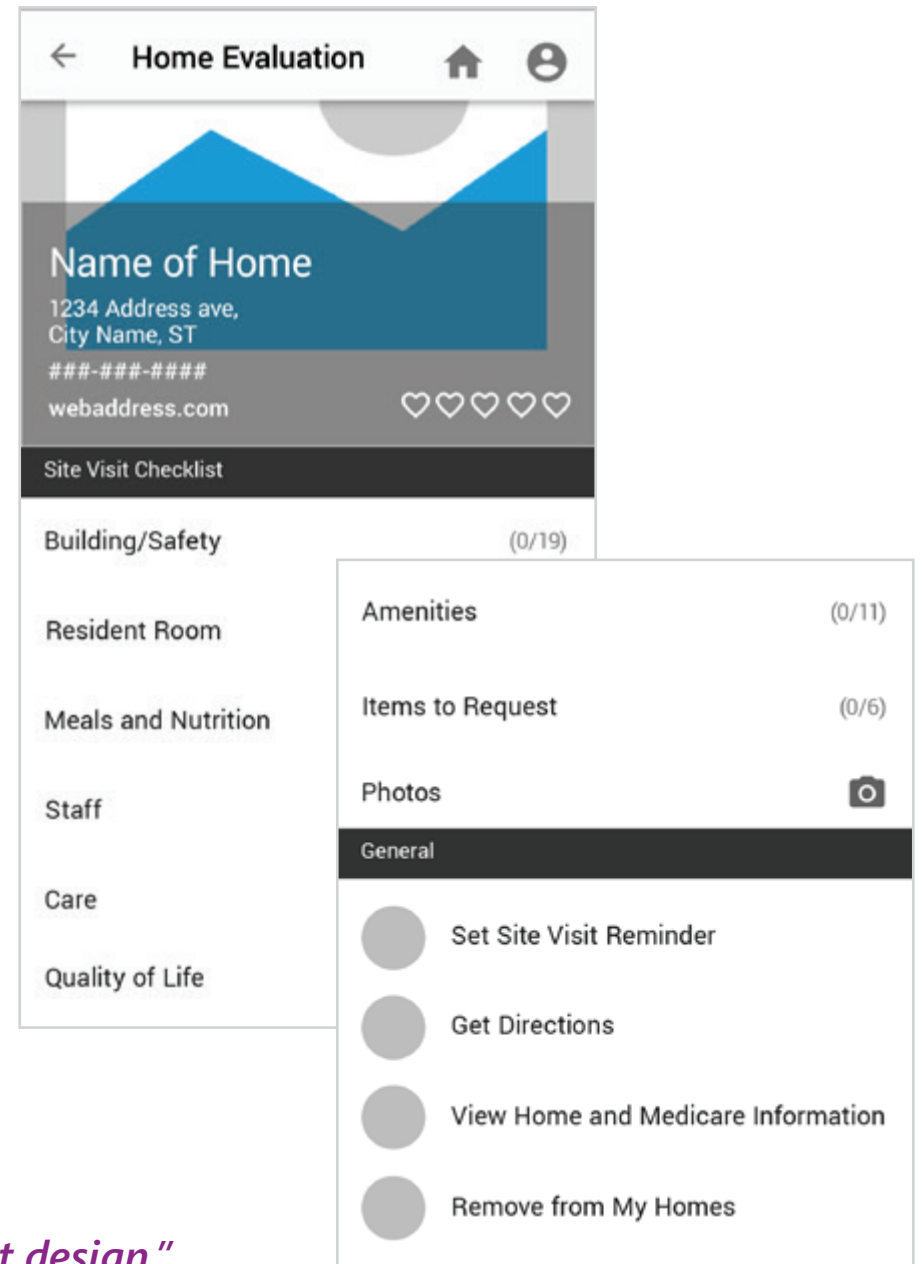
"Feels like when you go to an onsite visit you can rate things quickly, compared to my 5-page document."

"I wouldn't even know to ask some of these questions."

"I thought this feature was very well done! Loved the organization of it and the checklist seems very useful and informative, but also easy to use with a minimalist design."
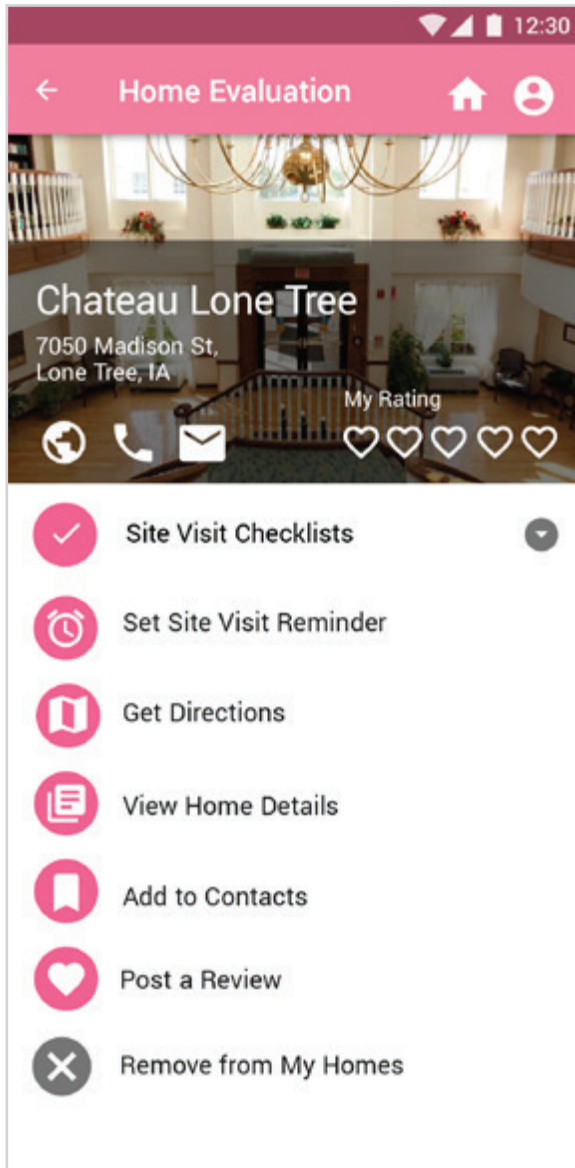
Usability Testing – Task Scenario #4

Design Changes

Home Evaluation screen

- Label hearts for my rating

- Collapse checklists under expandable "Site Visit Checklists"

- Remove number of questions answered from the side of the checklist (no one knew what it was)

- Change 'View Home and Medicare Information' to 'View Home Details'

- Add to contact list button (will need to prompt for permission to access and edit contact list)

Usability Testing – Task Scenario #5

To simulate a site visit, we have chosen a overview video for a home on Youtube. Since the video is not at the pace of a real tour, you may pause it at any time. Watch this video and use the app to find checklist items identified from the video. [17]

Objectives

- Ability to find items identified from video in the checklists
- How efficiently participants navigated checklists to find items

"The more you used the app, the more you'd remember where things are."

"Might be difficult to learn at first, but once you get used to the app it will be faster."

"Nice to have something to refer to."

"[I] felt like I accomplished something and it would help [me] to move to next steps."

Usability Testing – Task Scenario #5

Observations and Feedback

- Participants were able to recall and identify several of the checklist items from more than one category

- Participants found the checklist categories and items to be useful and helpful

- Participants commented that using the checklists made them feel efficient, focused and thorough

- Several participants commented that they felt using the checklists on the app would be easier than carrying around a notebook and trying to take notes on paper

- A couple of participants noted that it may be difficult, and perceived as disrespectful, to use the app on a guided tour and, as such, may be more useful during self-guided tour or for reflection after visit

Usability Testing – Task Scenario #5

Revisions

Modify Checklists
- Building & Safety
  - Add question(s) about parking
    - Ample parking
    - How far away is the parking / Parking close to entrance
  - Add question about main entrance having a canopy

- Quality of Life checklist
  - Reword question - have open visitation hours
  - Distinguish if visitors are allowed to bring pets versus resident pets

- Amenities
  - Add Library and TV Room and Spa
  - Change duplicate music room to theater room
  - Add a space to type in the room
  - Add Therapy Room

- Items to Request
  - Add Contract / Admissions Agreement
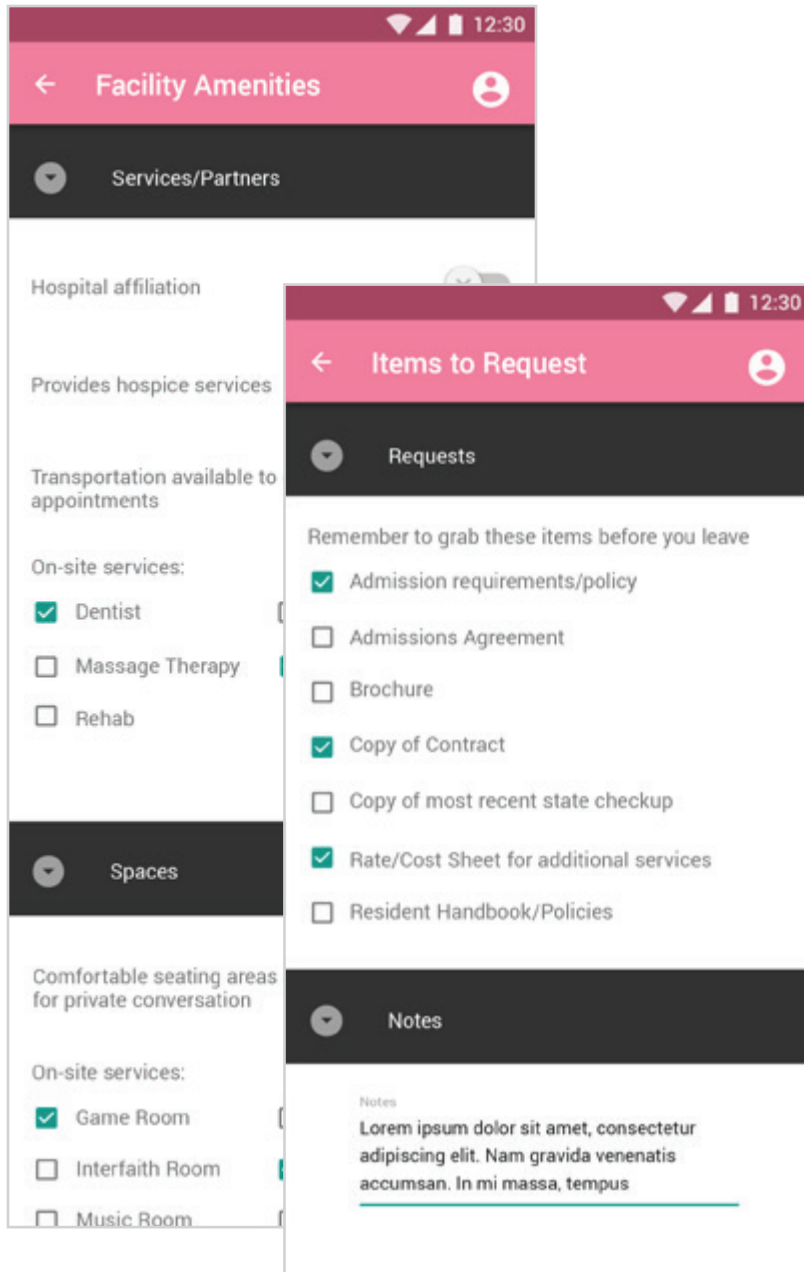
Usability Testing Post-Test Survey

Objectives

- Evaluate participant's overall satisfaction with the app
- Evaluate participant's confidence in using the app
- Rank importance of current and proposed features for Heart Home Assistant

69% were highly satisfied with the app

100% found the app to be usefull

77% felt the app features/content were organized

Usability Testing Post-Test Survey – Results

Participant Ranking of Current and Proposed Features

Current and Proposed Features	Participant Responses			
	Not Important			Very Important
Partner Website	1	3	5	5
My Home List			2	11
Ability to search for homes in app		1	4	8
Availability of home info, such as Medicare.gov ratings/data, in app	1	2	5	5
Site Visit reminder		4	5	4
Site Visit checklists		2	3	8
Customize checklists on website		2	4	7
Customize checklists in app		5	4	4
User reviews/ratings on homes		1	5	7

Usability Testing Post-Test Survey – Feedback from Participants

"Overall I like the design, and it's rather easy to use."

"Gave a lot of sense of control over the selection process."

"It's useful, because it requires time to look into the details; it's nice to have it all compact."

"This would make me feel like I was making headway on my task."
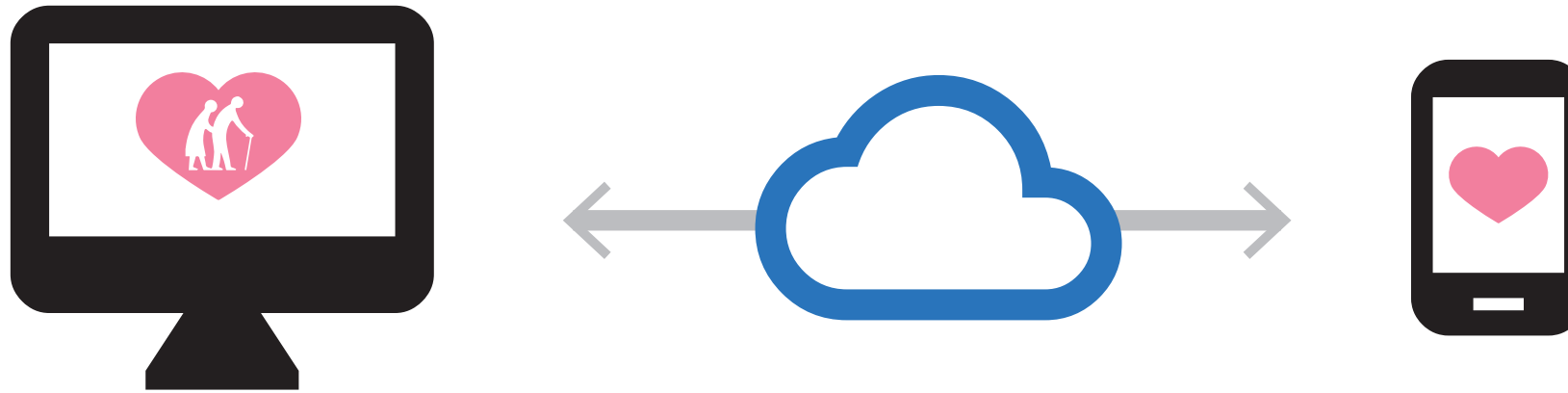
"I like the photos part a lot."

"This is exactly what I needed."

"I like this. I would use this."

Final Design

Design Concept • Heart Home Assistant App Screens

Design Concept

All changes made on the website would be reflected in the app
Data collected in the app, would be available and viewable when logged in on the website

Using the website:

- Fuller and more robust search features
- View Medicare ratings and data in a condensed, easy-to-read format
- Access to a library of 3rd-party resources
- Side-by-side comparison of homes
- Rate home to assist with selecting the best facility
- Save research notes
- Customize site visit checklist items to match their needs and preferences
- Participate in a community and share personal experiences about homes

Using the app:

- Evaluate homes during a site visit using the checklists
- Rate home to assist with selecting the best facility
- Search for homes and modify their short-list
- Search for homes using GPS-enabled 'Search Nearby' option
- View home details in a condensed, easy-to-read format designed for mobile
- Set a reminder for a site visit to a home
- Contact a home or get directions
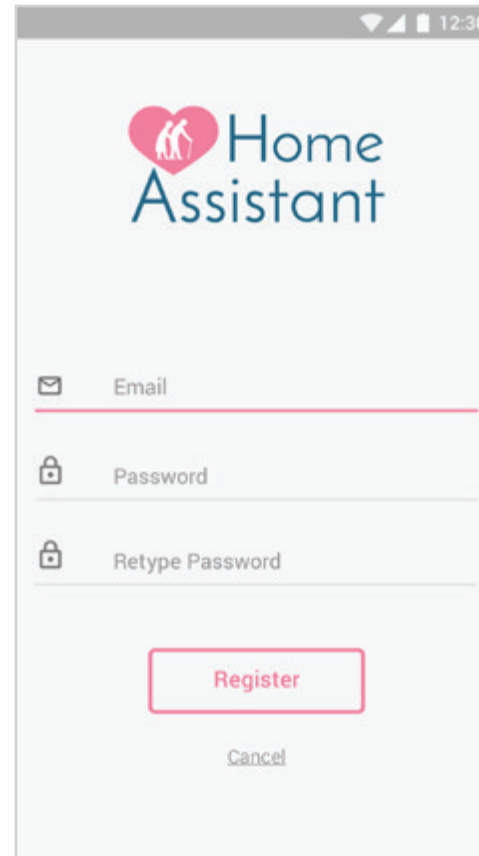- Take photos during a home visit

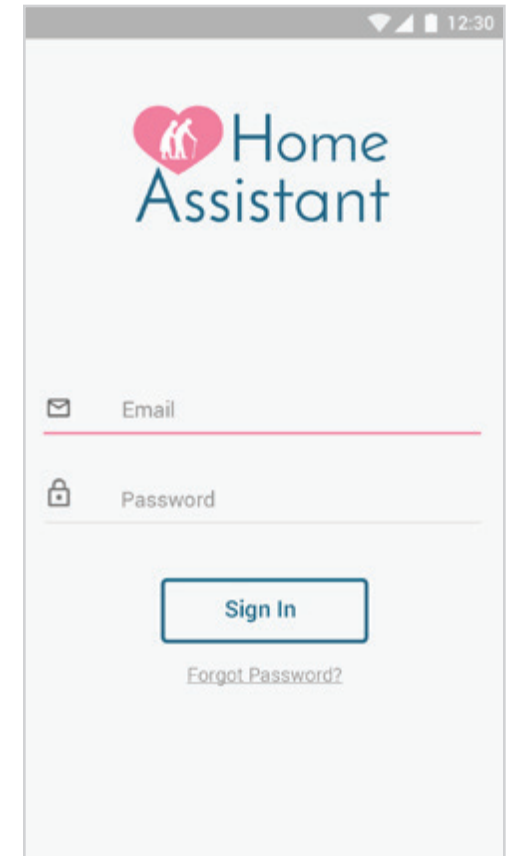# Heart Home Assistant App for Android

Initial, Sign in, Register
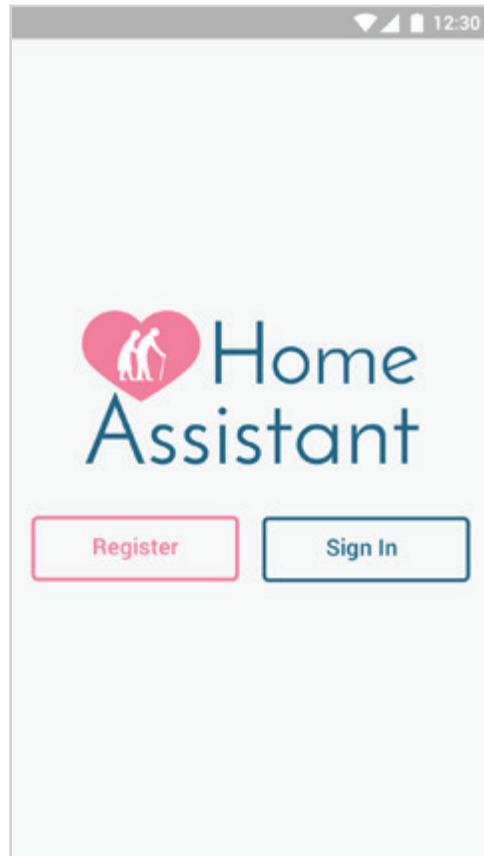
Initial screen:
Caregiver can register or sign in with an existing account.

Register screen:
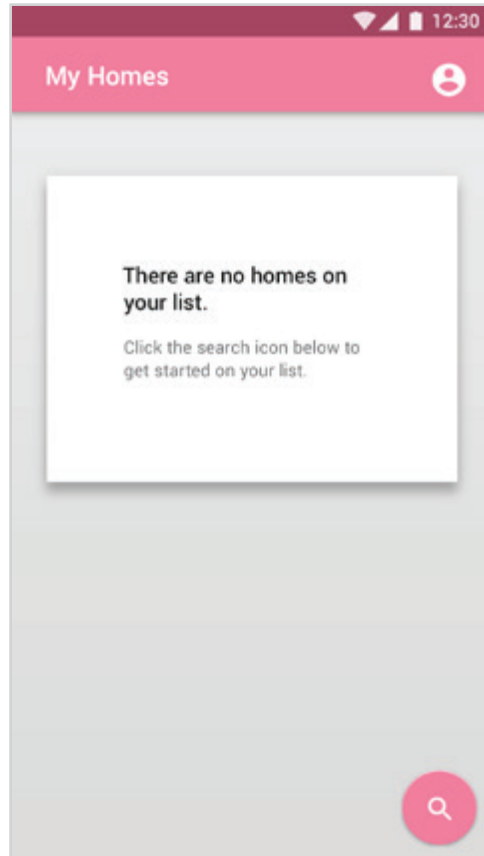Registration only requires an email and a password.

Sign In screen:
Caregivers who have already created account can sign in to access their home information.
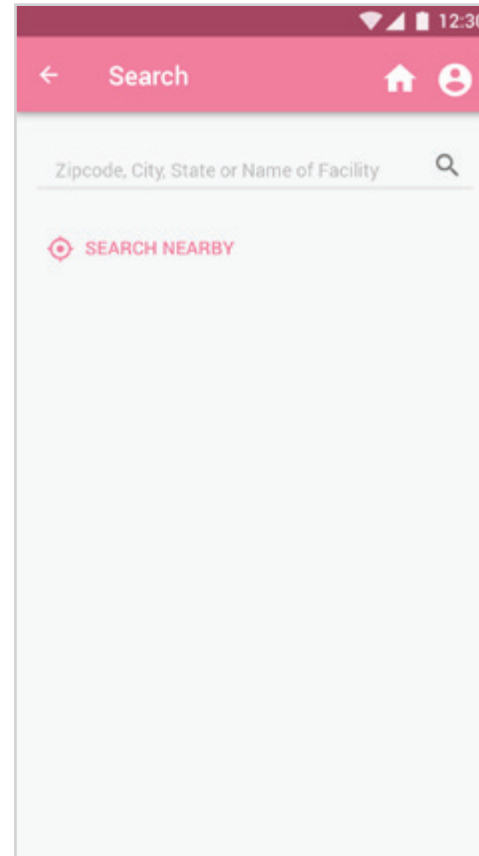
Heart Home Assistant App for Android

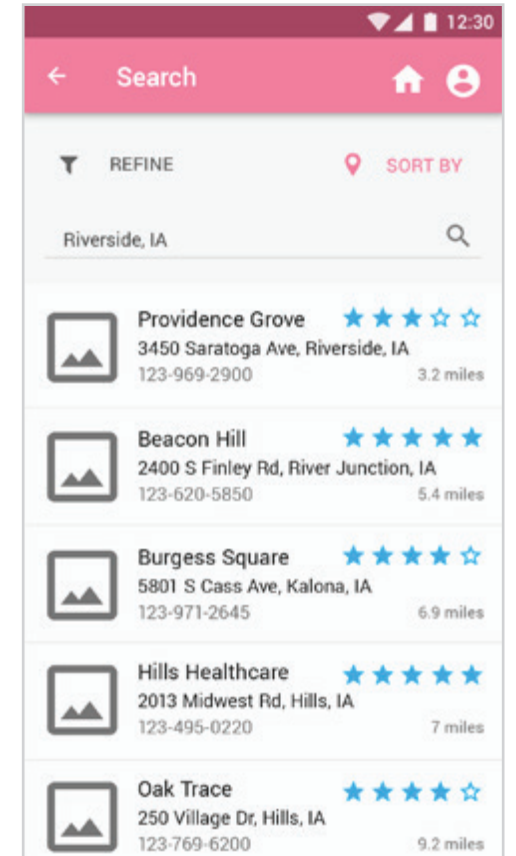Initial Screen, Home Search screen, Search results

My Homes screen:
A first-time user, that registered upon opening the app, will not have yet saved any homes to the My Homes list.

Search screen:
Caregivers can search by location or for a facility by name. Or they may choose to use the Search Nearby option which utilizes their device's GPS capabilities.
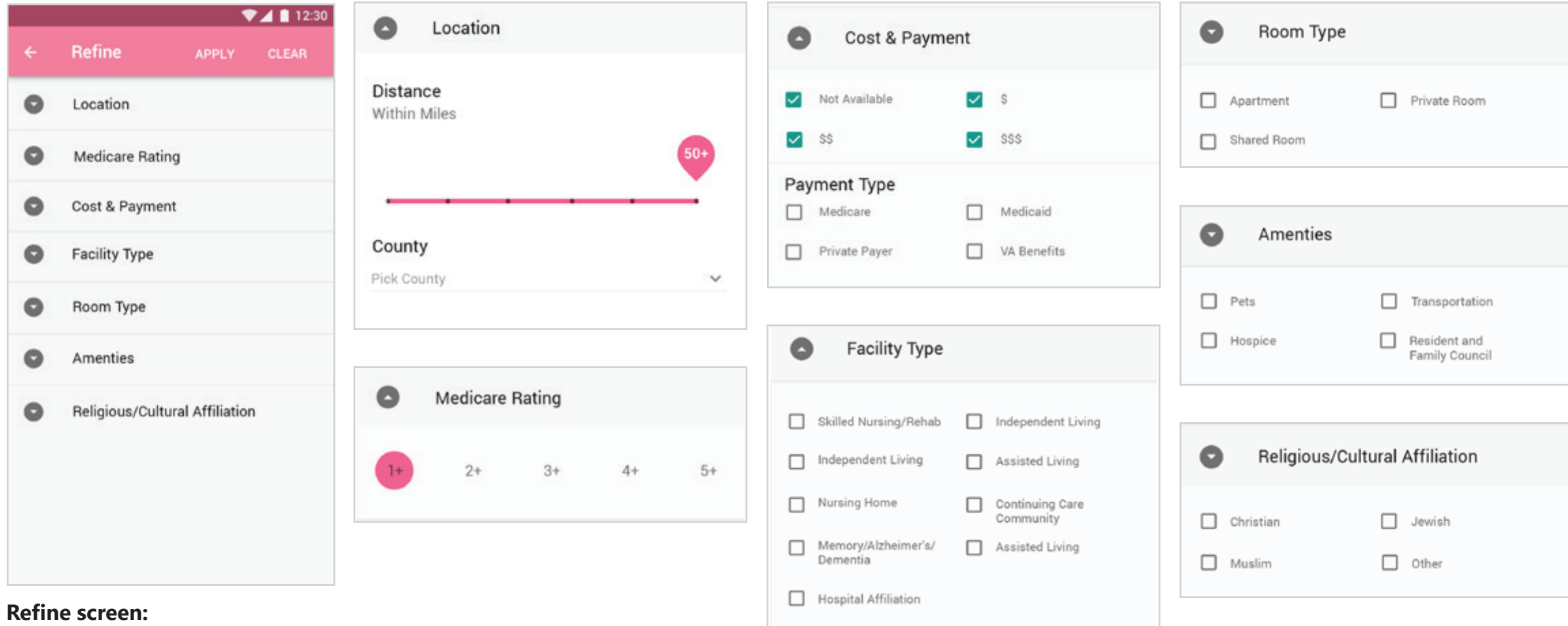

Search Results screen:
The search results show the homes sorted by distance. Caregivers have the option to refine their search or change the sort order.

Heart Home Assistant App for Android

Refine Search
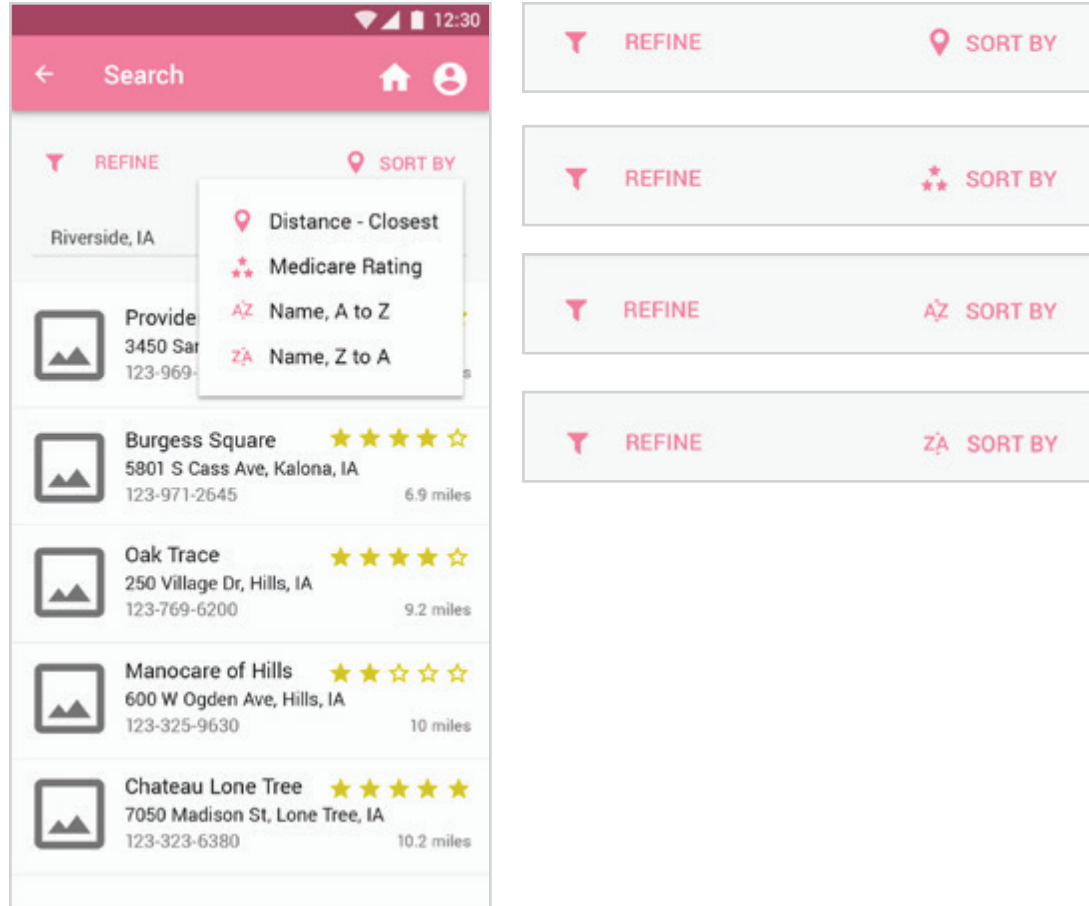

Refine screen:
The search filters allow users to refine their options to meet their needs and preferences. Tapping on a section expands to show the filter options for that section.

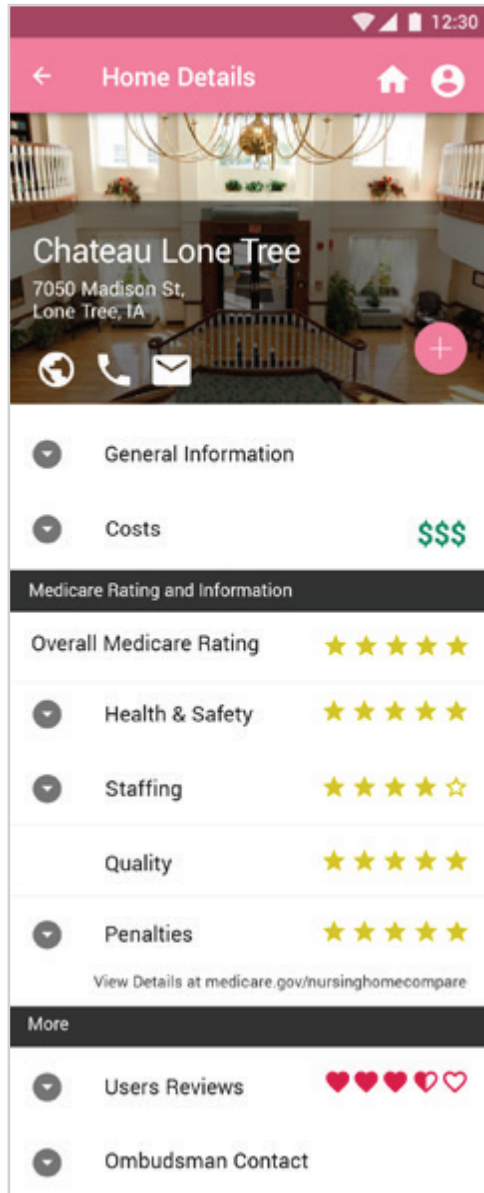# Heart Home Assistant App for Android

Search Results Sort Options

Search Results screen:
The caregiver can select from 4 sort options. The sort icon changes to show the option currently selected.

Heart Home Assistant App for Android

Home Details

Home Details screen:
Includes general information about the home in addition to the Medicare ratings and data, user reviews and ombudsman contact. Sections expand to show more detail.

Users can add this home to their My Homes list by tapping the + icon. Icon changes to checkmark to confirm addition.

The screen also shows a photo of the home along with the home name and address, in addition to options to visit their website, call the facility or send them an email.

Heart Home Assistant App for Android

My Homes (with homes) and Sort Feature
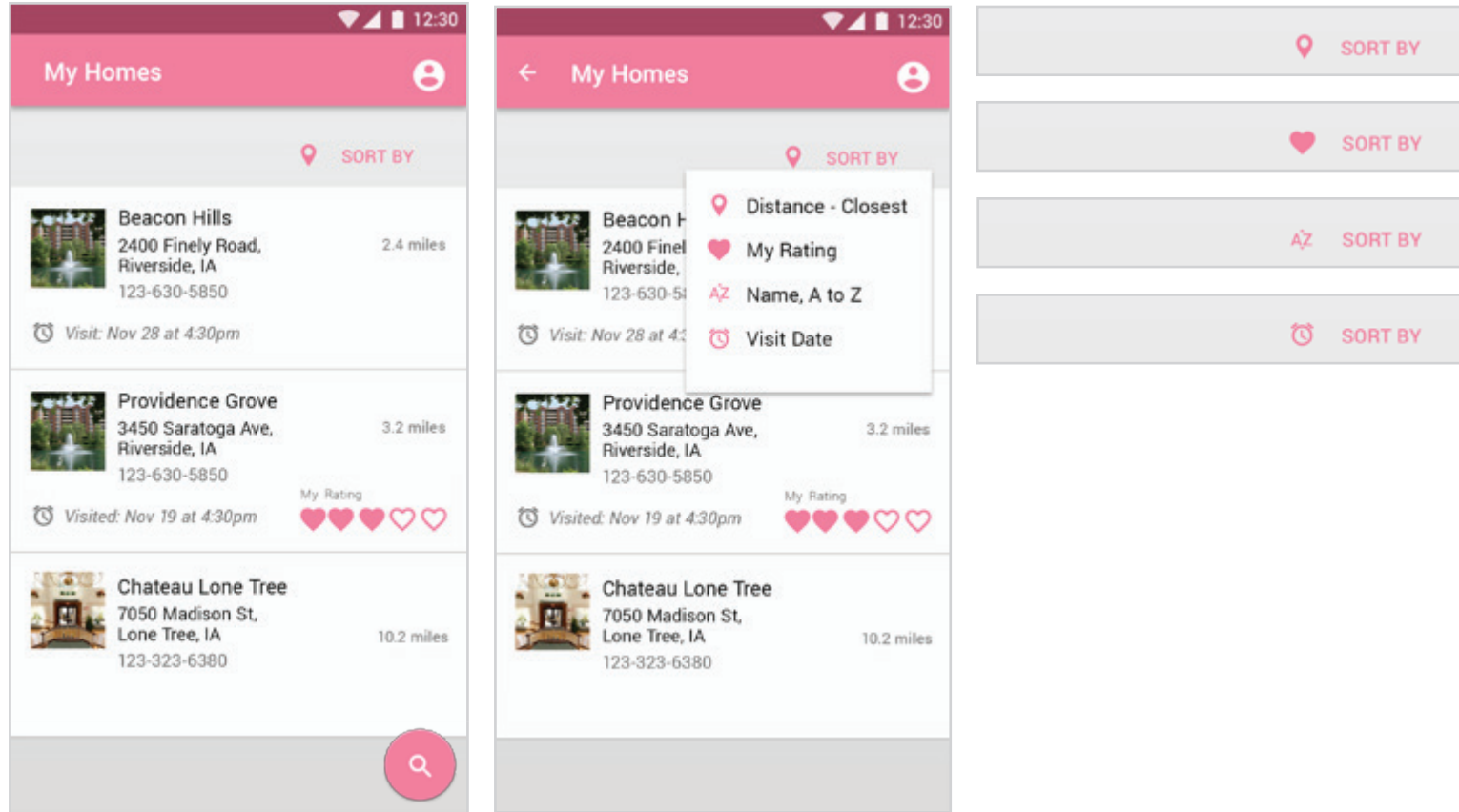
My Homes screen:
After the caregiver has added homes to their list, they will be able sort and evaluate the homes. Features such as ratings and site visit reminder will not be shown for the home until they have accessed the "Home Evaluation" screen and updated that information.

Heart Home Assistant App for Android

Home Evaluation - rating, site visit reminder
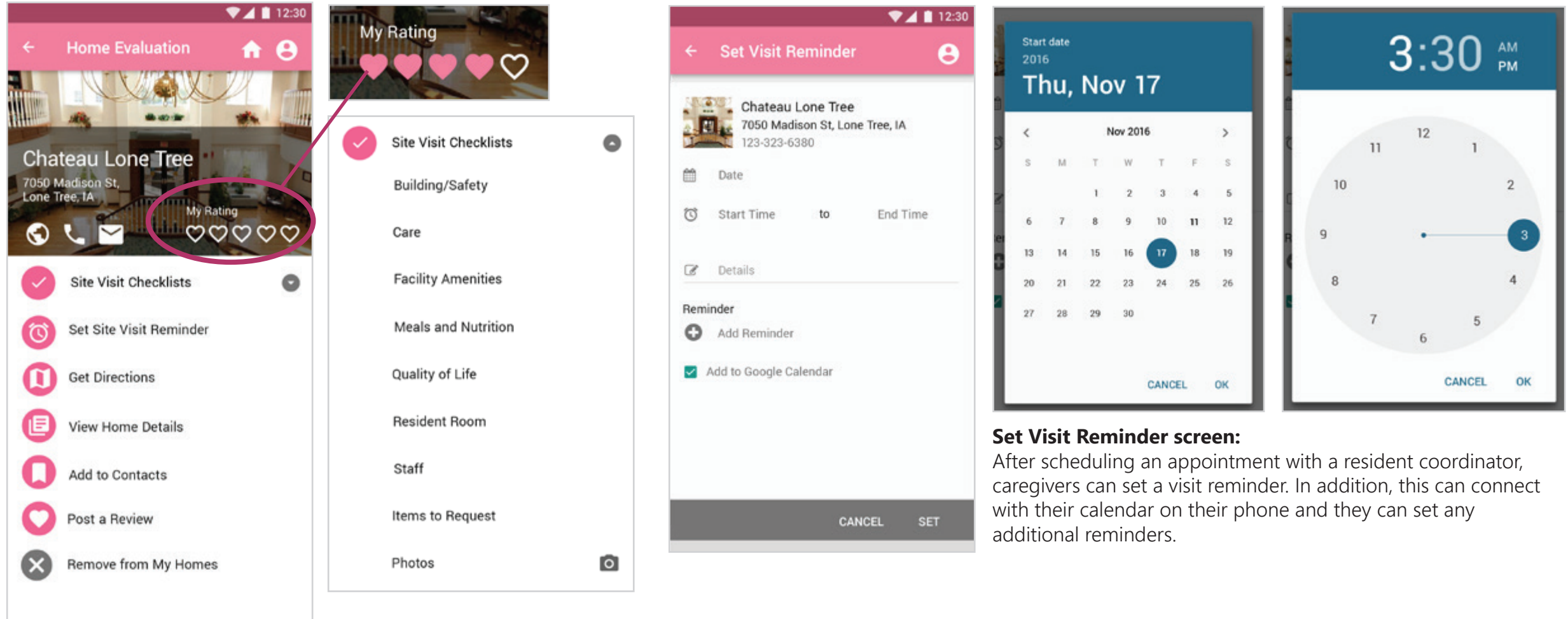
Home Evaluation screen:
This screen provides caregivers with all the tools they need to evaluate and visit a home, specifically the "Site Visit Checklists." They can give the home a personal rating to help them rank the homes on their list.

Set Visit Reminder screen:
After scheduling an appointment with a resident coordinator, caregivers can set a visit reminder. In addition, this can connect with their calendar on their phone and they can set any additional reminders.

Heart Home Assistant App for Android

Checklist Screens:

Each checklist is broken into subcategories to assist with scanning through the options. Each of the subcategories expands to show the items in that group. The checklists are designed for the caregivers to be able to rate an option with a one-touch interaction. Caregivers may also use the Photo feature to take a photo during their visit.

Checklists - Building Safety

Heart Home Assistant App for Android

Checklists - Care

Heart Home Assistant App for Android

Checklists - Facility Amenities

Facility Amenities

- Services/Partners
- Spaces
- Access
- Notes

Services/Partners

Hospital affiliation

Provides hospice services

Transportation available to go to doctor appointments

On-site services:
- ☑ Dentist
- ☐ Hair Salon
- ☐ Massage Therapy
- ☑ Optometrist
- ☐ Rehab

Spaces

Comfortable seating areas are available for private conversation

On-site services:
- ☑ Game Room
- ☐ Gym/Fitness
- ☐ Interfaith Room
- ☑ Library
- ☐ Music Room
- ☐ Theater room
- ☐ TV Room
- ☐ Spa
- ☐ Other

Space is available for family gatherings

Access

Access to telephone

Internet/wifi access

Notes

Notes
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nam gravida venenatis accumsan. In mi massa, tempus

Heart Home Assistant App for Android

Checklists - Meals and Nutrition

Heart Home Assistant App for Android

Checklists - Quality of Life

Quality of Life screen (menu):
- Freedom/Schedule
- Activities
- Other
- Notes

Freedom/Schedule
- Set schedule/routine is provided for Alzheimer's/dementia patients?
- Residents are allowed to make choices about daily routine (for example, when to go to bed, when to get up, when to bathe or when to eat)?
- Residents choose what time to get up
- Residents choose what time they change into morning/night clothes
- Are there open visiting hours?

Activities
- Activity calendar is visible/available list for day's activities?
- Do most of the residents at an activity seem to join in? [5]
- Family participation in activities is allowed/encouraged
- Is there an activity plan for each resident based on the person's interests and remaining cognitive strengths?
- Does facility offer alternative activities such as music or art therapy
- Are residents escorted outside on a daily basis?
- Are regular outings planned for residents?

Other
- Does the home meet cultural, religious or language needs?
- Is there a chapel with multi-denominational services
- Is there a resident pet on premise?
- Are family pets allowed to visit?

Notes
Notes
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nam gravida venenatis accumsan. In mi massa, tempus

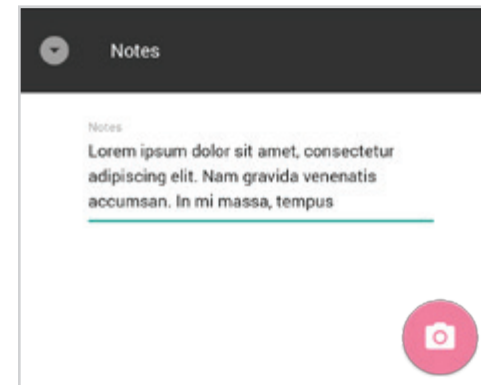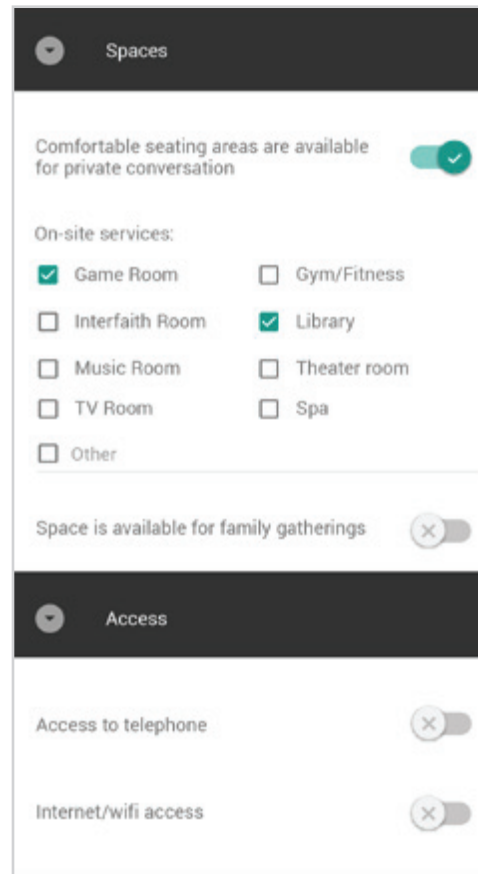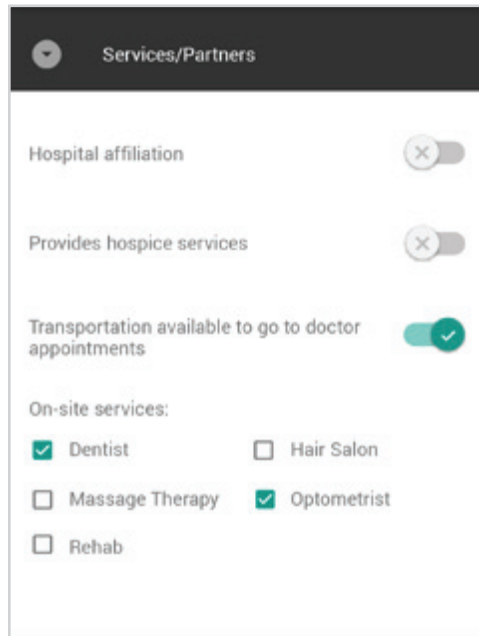# Heart Home Assistant App for Android

Checklists - Resident Room

Heart Home Assistant App for Android

Checklists - Staff

Screen 1 (Staff menu):
12:30

← Staff

- Attitude/Appearance
- Training
- Other
- Notes

Screen 2 (Attitude/Appearance):

Attitude/Appearance

First contact provided welcoming feeling; prompt response — 4

Staff smiling, environment feels positive — 3

Are staff friendly, considerate and helpful? — 4

(toggle on ✓)

Staff wear name tags and have professional appearance (toggle off ✕)

Training

Are staff trained to care for Alzheimer's/dementia patients (toggle on ✓)

Physical therapy staff are available? (toggle off ✕)

Screen 3 (Other):

Other

Is the ratio of residents to staff appropriate? — 3

Do staff turnover frequently? (Ask: How long do staff generally work here?) — 3

Notes

Notes
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nam gravida venenatis accumsan. In mi massa, tempus
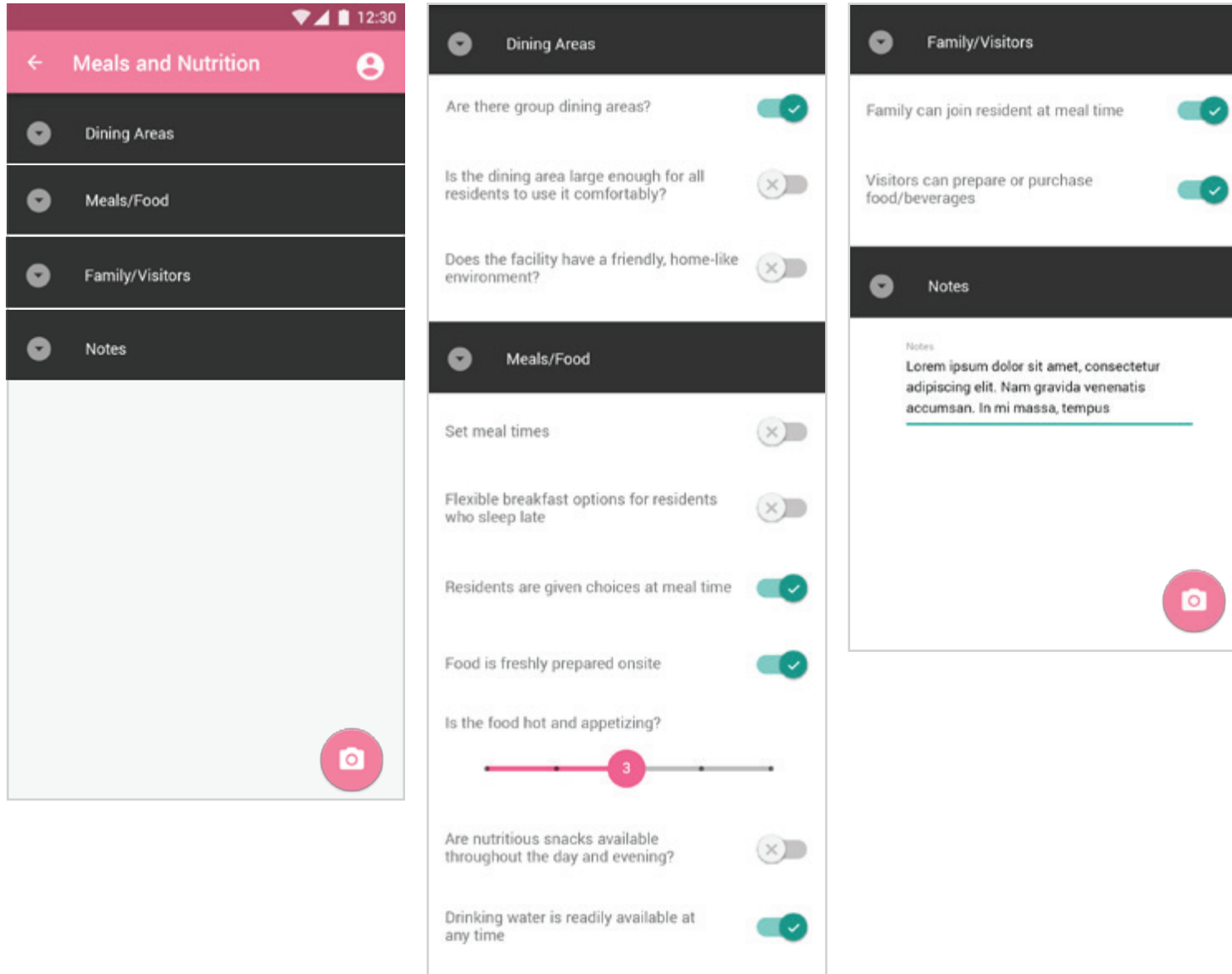
Heart Home Assistant App for Android

Checklist - Items to Request and Photo Gallery

Items to Request screen:
The Items to Request checklist helps caregivers remember to request and collect important documentation on their visit.
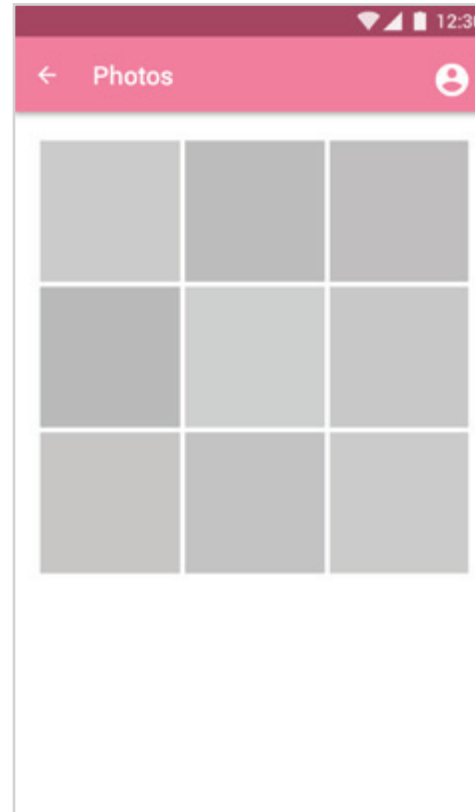
Photos screen:
Caregivers can take photos during their visit using their mobile device.

When the caregiver accesses their camera function through the app for the first time, they will receive an notification reminding them of HIPAA practices before they can take a photo.

Conclusion

Project Goals • Limitations • Future Work

Project Goals – Goal #1: Improve user's confidence in their decision making process

Very Dissatisfied

Very Satisfied
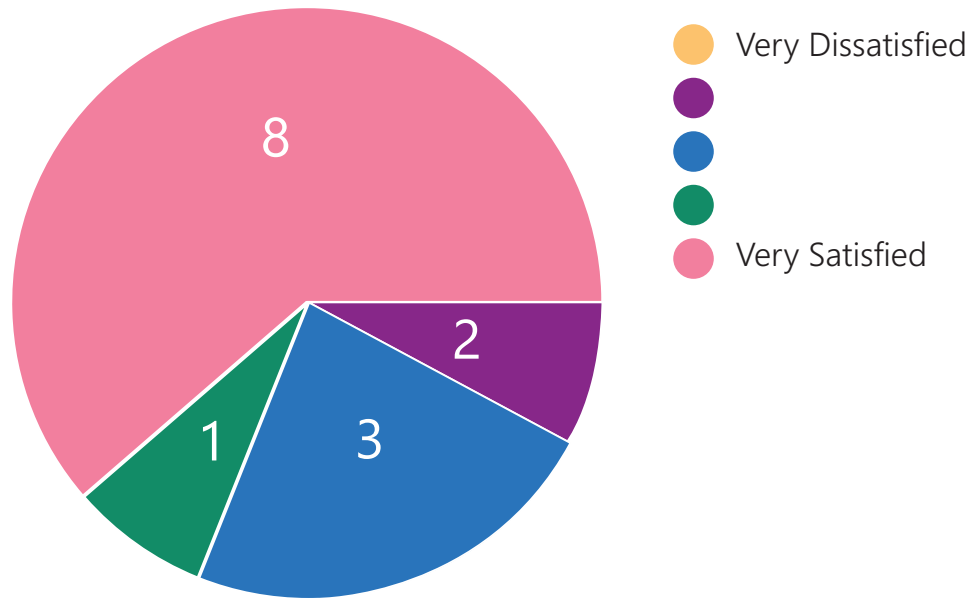
Measure: 60% percent of users will respond 4 or 5 overall satisfaction rating

Did we meet our goal? Yes.
- 69% (9 of 13) responded with a 4 or 5 overall level of satisfaction

"When you don't know where to start, it provides some direction with options to guide you."

"If you were a little timid about experience, this would give you confidence."

Project Goals - Goal #2: Improve ease of mind when starting the search for long-term care

- Very Dissatisfied
-
-
-
- Very Satisfied
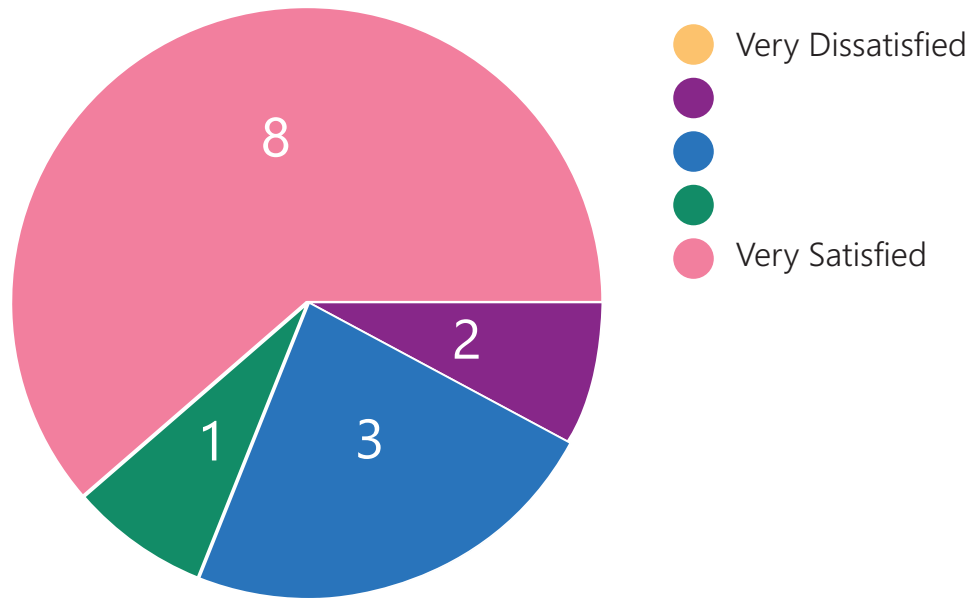
Measure: 60% of users will respond 4 or 5 overall satisfaction rating

Did we meet our goal? Yes.
- 69% (9 of 13) responded with a 4 or 5 overall level of satisfaction.

"It's hard to stay organized and take the notes you need to take, this would keep it simple."

"This app helps you to think of things you wouldn't have otherwise."

"[The app] didn't require a lot of typing, just clicking."

"Great tool for someone who really needs help. This is exactly what I needed."

Project Goals - Goal #3: Provide filter system that supports the individual's needs

- Did not find filter options
- Not Useful
- (purple)
- (blue)
- (green)
- Very Useful
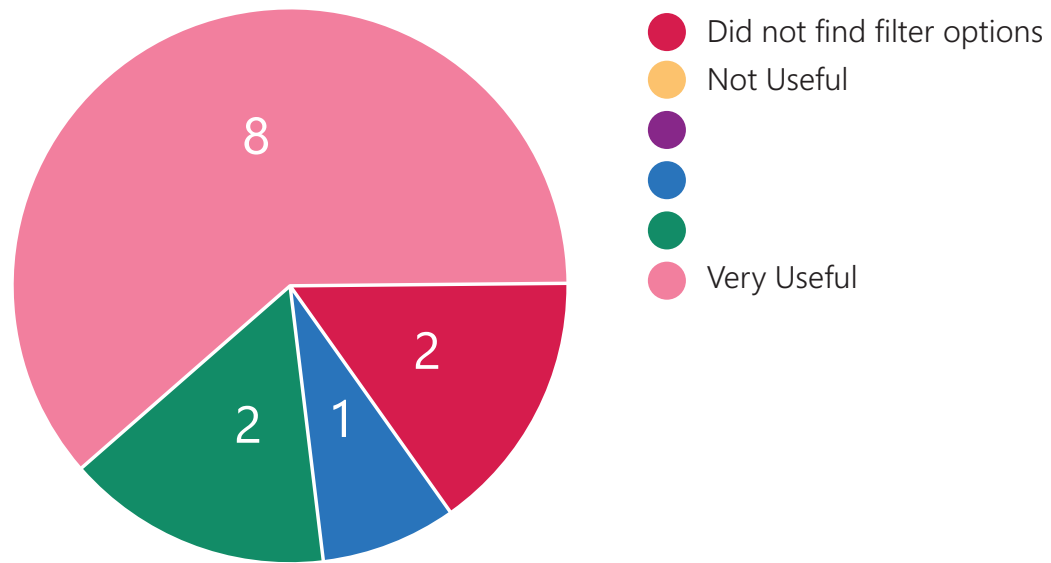
Measure: 40% of users notice and use this feature, 4 or 5 satisfaction rating

Did we meet our goal? Yes.
- 76% (11 of 13) of participants noticed and used the filters
- 91% (10 of 11) of users rated the search filters as useful

"Nice, [the] filters give you options to consider."

Project Goals - Goal #4: Provide complex information in an easily understandable format

- 8 (Very Organized - pink)
- 3 (blue)
- 2 (green)

Legend:
- 🟡 Very Disorganized
- 🟣
- 🔵
- 🟢 Very Organized

Measure: User comments, high rating (4-5) on organization of information presented, 4 or 5 overall satisfaction rating.

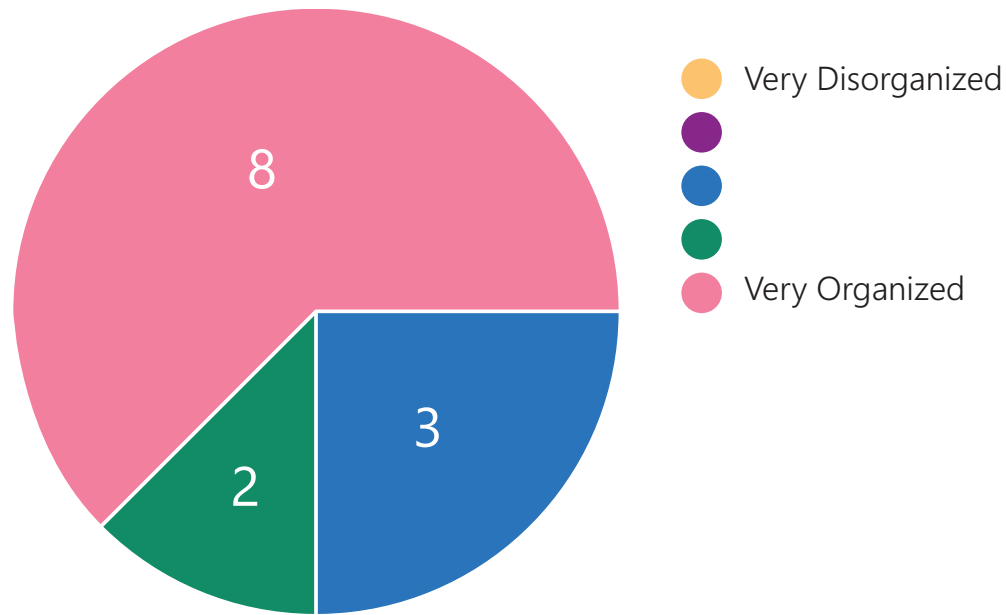**Did we meet our goal? Yes.**
- 92% (12 of 13) rated the Search Results as organized
- 82% (9 of 11*) rated the Home Detail as organized
- 100% (11 of 11) rated My Homes as organized
- 100% (11 of 11) rated Home Evaluation as organized
- 100% (11 of 11) rated Site Visit Checklists as organized
- 77% (10 of 13) rated overall Features and Content as organized
- 69% (9 of 13) responded with a 4 or 5 overall level of satisfaction

*2 participants were unable to complete task scenario #1

"[The app provides] enough information to gage what's important."

"I thought this feature was very well done! Loved the organization of it and the checklist seems very useful and informative."

"The more you used the app, the more you'd remember where things are."

Project Goals - Goal #5: Provide an interface that supports user-provided feedback and ratings

Measure: 80% users notice and use this feature, positive feedback on inclusion of user reviews, 4 or 5 satisfaction rating

Did we meet this goal? Yes.

- 91% (10 of 11) participants correctly identified how to rate a home

- 12 participants rated user reviews as important/very important to have

- 69% (9 of 13) responded with a 4 or 5 level of satisfaction
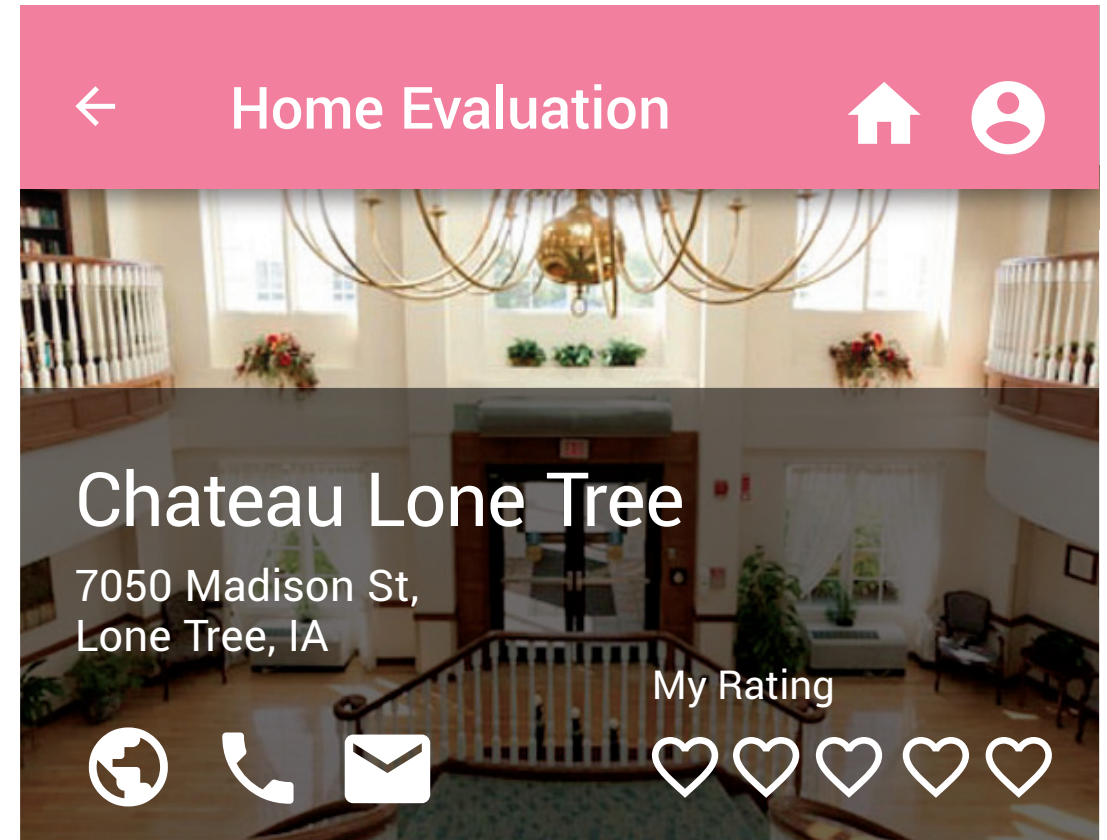
"Tap the hearts."

Limitations

Time

- Limited time to consume and understand all the information gathered

- Tight timeline to synthesize all the information at each step during the design process

- No extra time to expand research to include observation of a facility tour with a family or on our own

Expert Interviews

- Was only able to connect with one expert

- Did not receive good response from experts (social workers or state ombudsman) to do interviews

- Expert would provide valuable feedback on how to guide people through this process

Participants

- Relied on contacts through friends, family and coworkers to recruit participants

- Would be ideal to have participants with more varied backgrounds providing potential to focus on specific needs and preferences influenced by finances, care type needed, etc.

Card Sort

- Free version of OptimalSort - limited to 30 cards for checklist

Prototype

- MarvelApp Prototyping tool did not support complex interactions

- Prototyping tool could not maintain state – screens were created for each individual interaction

- These limitations inhibited the ability for participants to click around and explore the app

- Looked to expand to other prototyping tools, but due to time and similar restrictions we continued with MarvelApp.

Usability Study

- Missed connecting the search results to the home details in the first task which led to abandonment of the test completed by peers
  - Peers could not complete the task without applying filters first

- Experimented using a simulated tour with a YouTube video – participants were told to pause the video if needed
  - Worked well for some participants
  - Others found it confusing and frustrating due to it not reflecting the pace or flow of a guided tour

Future Work

- Real-time observation of facility site visit with hi-fidelity, fully-functional prototype

- Expanding research to focus on specific needs and resources (e.g. financial limitations, specific care type, etc.)

- For Mobile app

  - Ability to add Homes if a home is not on the Medicare database

  - When searching for facility by name think of human error with typos; maybe create a "Did you mean...?" like Google does

  - Evaluate the scoring based off the checklist and determine if it is something needed or is something that should be skipped

  - Create an introductory tutorial for first time app opening

  - Look into map to be added into the home details or part of the search screen

- Expand app for iPhone users

- Develop partner website for more robust interactions/abilities for users, as well as more guided information we found useful during our research and learned from interviews

- Explore interest in using tablet when doing search or on site visit; how might this impact design and features

Additional Documentation

References • Site Reviews • Consent Form • Interview Script
Usability Test Script – Moderated • Usability Test Script – Unmoderated

References and Resources

Background and Process

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Site Reviews

Review Questions:

What features of your competitors seeming interesting or appealing?

What options were provided for the initial search?

Are there any options to refine the search?

Does the site facilitate comparing options easily?

Does the site provide a way to save facilities in which the person is interested?

What information is shown about the facilities in the initial search results?

What information is provided for each facility overall (list of topics)?

Does the site offer any reviews?

Medicare.gov Nursing Home Compare

Medicare.gov Nursing Home Compare Review

https://www.medicare.gov/NursingHomeCompare/search.html

What features of your competitors seeming interesting or appealing?

- Ability to toggle between list and map view on search results
- Add to favorites (even though it doesn't work)
- Compare feature
- Search filters (although options limited)

What options were provided for the initial search?
The initial search page provides the options to search by Location (zip or city, state or state) or by Name of nursing home.

Landing page also offers additional information:

- Link to state sites for more information not collected by federal govt
- Link to nursing home alternatives
- Spotlight area with news about updated information and links to resources
- Section with links to access the govt data and submit updates
- Tools and Tips link to resources to help guide caregivers in their search and find other resources that may be needed

Are there any options to refine the search?
You can sort by any of the items (flexibility) and each item has an icon that shows a tooltip when you mouseover with an explanation/description of that metric. The up/down arrows may not be intuitive to use for sorting? Why not just click column name; would people know to do that?

Modify your search form on right shows current search (system status) and allows additional options to update search results: distance radius (with x miles), state with county option, full or partial home name option. Note: This takes up a lot of space and pushes the filters further down. Do people see the filters and use them?

Ability to filter by overall rating or nursing home characteristics (limited options here)

- Within a continuing care community
- Within a hospital
- Accepts medicare
- Accepts Medicaid

Does the site facilitate comparing options easily?

Yes, ability to select and compare up to 3 homes

· The option to select a home for comparison is very obvious and show status (visibility of system status). Selected homes also show as list with the Compare Now button found above and below the list.

Does the site provide a way to save facilities in which the person is interested?

Yes, but it didn't work well. Very bad usability. Also requires that the person has an account which requires having a Medicare ID.

Ok, so I clicked Add to Favorites and logged in with my Mom's account, was prompted that password had to be changed every 90 days, did that and got in and it didn't save the favorite that I had selected. :\

The login did open in a new window, so went back to original window and tried Add to Favorites again. Which sent me to the login page again (in a new window), but it said I was already logged in. Still not added to favorites.

Went back to other tab from where I had logged in before and clicked 'Select to add favorite providers' link. Opens page that I have to search again, so I did that, then I had to enable popups, which opened a new window which was on the Nursing Homes Search homepage again with home zip code in search box by default. I search and choose the facility to add to my favorites. Finally, it added my selection to favorites, but only option is to go back to previous page.

So it went back to the previous page with the list from the zip code search and takes forever to not load. I'm looking for a way to view my favorites list, but see none. So I go back to the Nursing Homes Compare page and there's no option to navigate to favorites from there.

I recall seeing favorites on my account page after signing in, which is still open in another tab, I think, so I look for that. Found page that says I have no providers, so I navigate to My Health Summary in the breadcrumb. I see Providers section here and my selection is there, so I click to view all providers and I'm finally to the page that I saw before that shows the provider types. Finally, I see my fav and there is link to view info or remove from favorites. Wow, pain in the ass.

Opportunity: Once home is on favorite it showed 'remove from favorite' when viewing details, but when viewing list, it still shows 'add to favorites'. And there's no way to see just my favorites from the Nursing Home Compare list page or go to view them.

I try adding another and it's the same rat-maze again! ☺

What information is shown about the facilities in the initial search results?

Default view is a list sorted by distance. There is also a map view available.

Default information includes:

· Nursing home name, address and phone
· Overall rating
· Health Inspection rating
· Staffing rating
· Quality measures rating
· Distance

Ratings are shown using familiar 5-star icons in addition to words (much below, below, average, above, much above)
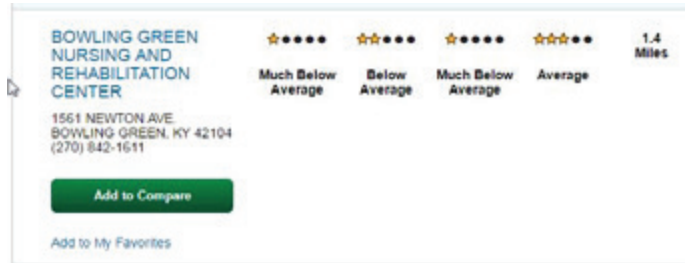
What information is provided for each facility overall (list of topics)?

· General Information
  o Name of facility
  o Overall rating
  o Address
  o Option to add to Favorites
  o Link to map and directions
  o Map showing general location
  o Nursing Home Information
    § Number beds
    § Participates in Medicare/Medicaid
    § Ownership (profit/nonprofit)
    § Automatic Sprinkler systems
    § Within a continuing care community (yes/no)
    § Within a hospital (yes/no)
    § Resident and Family Counsel (yes/no)
  o Health Inspection Overall Rating
  o Staffing Rating
  o Quality Measures Rating
  o Ownership Information
· Health & Fire Safety Inspections
  o Some general info repeated
  o Health Inspection Summary (with link to view full report)
    § Number deficiencies by category
  o Fire Safety Summary
  o Complaints reported last 3 years
· Staffing
  o Some general info repeated

  o Staffing (hours)
  o RN Staffing
    § Total Number Residents
    § Total Number licensed nurse staff hours per resident per day
      · RN
      · LPN/LVN
    § CAN hours
    § Physical therapy hours
· Quality Measures
  o Some general info repeated
  o Short-stay measures (option to view table or bar graph)
  o Long-stay residents
  *both measures show for facility, state and US average
· Penalties
  o Some general info repeated
  o Federal fines in last 3 years (date, amount)
  o Federal payment denials last 3 years (date)

Does the site offer any reviews?

No

Other

· Option to print all results provide on search results page
· Button to start new search is at bottom below filters – best placement?

US News Best Nursing Homes

USNews Best Nursing Homes Review

http://health.usnews.com/best-nursing-homes

What features of your competitors seeming interesting or appealing?

On the main landing page, there are several links to guides below categorized by: How to Choose a Nursing Home, How to Cover the Cost, How to Guarantee Good Care.

These guides persisted on the right hand side of the Search Results page.

Interestingly, there is a map with homes near me and it's using geolocation to show homes actually near me on a map view.
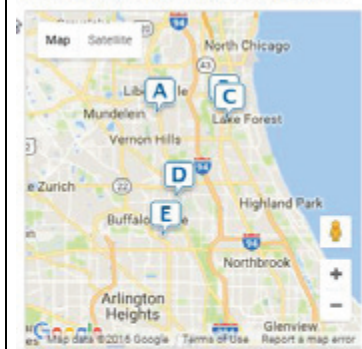
What options were provided for the initial search?

Landing page offers search by zip code and there's also a list of links for each state.
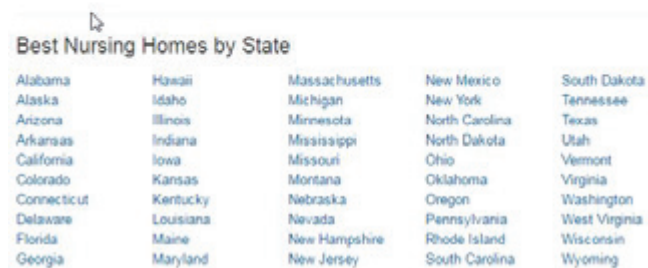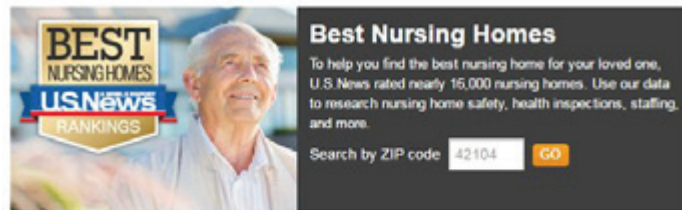
Are there any options to refine the search?

I'm looking for my Dad, so I choose the Kentucky link. The page loads with an extensive list, but there is an option on the left to filter the list by location, so I do that. (there is no button to submit, so I hit enter to apply filter).

You can refine results by

- Name
- Features: accepts medicare, accepts Medicaid, or part of continuing care community
- Location: with x miles and city, state or zip
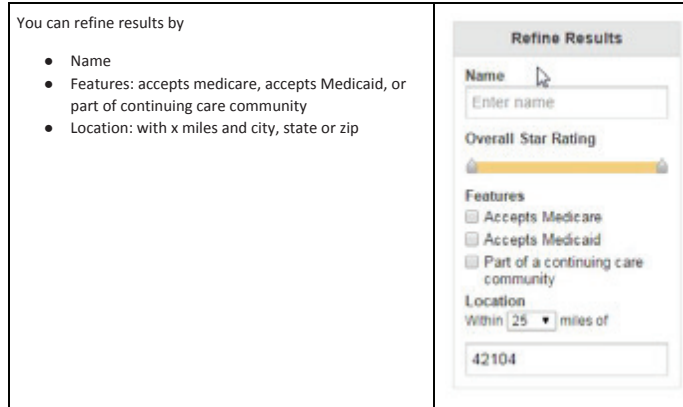
Does the site facilitate comparing options easily?

No, not really. There is a sort option.

Sort by is very clearly shown at top with options of Name, Rating or Distance and Distance is clearly the default selection.

Does the site provide a way to save facilities in which the person is interested?

No.

What information is shown about the facilities in the initial search results?

Default information includes:

- Name of facility with address
- Medicare/Medicaid info
- Number of beds
- Designation for Continuing Care Retirement Community
- Link to Full Report (center name also links to full report)
- 5-star ratings for Overall, Health Inspections, Staffing and Quality

What information is provided for each facility overall (list of topics)?

Note: Facility detail page has references to Nursing Home Care site and link to NHC for up-to-date health inspections.

Note: Facebook Like in upper right hand corner.

Information Provided

- Overview
  - General
    - Name, Address
    - Medicare/Medicaid
    - Ownership (Profit/Nonprofit)
    - Continuing Care community (yes/no)
    - Overall Rating
  - Health Inspection Rating
  - Nurse Staffing Rating
  - Quality Measures Rating
  - Fire Safety Rating
  - Penalties
- Health Inspections
  - Health Inspection Rating
  - Health Deficiencies Overview (this nursing home along with state and US avg)
  - Most recent inspection failures with option to show previous inspections
- Nurse Staffing
  - Overall Rating
      - Average time resident gets with … along with state and US average
        - Nurses (total)
        - RN
        - LPN, Licensed Vocational Nurses
        - CNA
        - Physical Therapy staff
- Quality Measures
  - Overall Rating
  - Long-stay deficiencies
  - Short-stay deficiencies
- Fire Safety
  - Stats comparing this nursing home to state and US average
  - Dated fire inspection reports with deficiencies

Does the site offer any reviews?

No.

Other Comments

Likes

- The sort mechanism seems more clear and shows status, but there is no sort reverse order.
- The guides on the right seem to be handy and helpful.
- There's not a lot of expand/collapse sections on the details page.
- Appearance seems more polished than medicare.gov
- Association with facility's Facebook on facility page (provides referral connection?)

Dislikes

- Not easy to compare
- Site is more-or-less like a directory to look up information

HealthGrove Compare Nursing Homes

What features of your competitors seeming interesting or appealing?
The smart rating is amazing - but the percentages implemented seem off putting and hard to understand at first look.
Graphically - the site is very very appealing. They provide occupied percentage, Location (and distance from the location the user provides), graphic view of beds and overall a very clean simple looking webpage.

What options were provided for the initial search?
On the homepage Health Grove seems to provide information for a variety of topics. In regards the nursing home, the user starts directly in the search feature, there is an option for guide that does provide more details in regards to comparing and searching for nursing homes.

Are there any options to refine the search?
The search options are: Nursing homes names, location, distance, sort by (smart rating, nursing home, beds, percentage occupied, overall medicare rating, daily cost and High to low or low to high) and viewing style (list, expanded, map) [Researcher note: Expanded view is the most informative and similar to an idea we had.)

Does the site facilitate comparing options easily?
Yes, it's not the easiest to get to this, the button to compare is all the way at the bottom of the list.
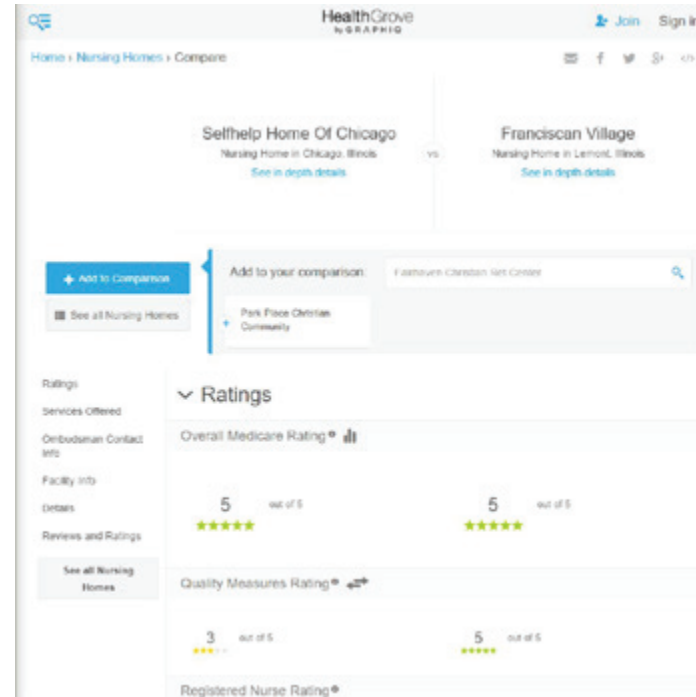
Does the site provide a way to save facilities in which the person is interested?
It doesn't look there is a way to save nursing homes, but in the account there is a listing for my list, I don't think that works for the nursing home facilities though.

What information is shown about the facilities in the initial search results?
Initial search results show - Nursing home name/location, smart rating, beds, percent occupied.

Expanded view - Nursing home name/location, smart rating, beds, percent occupied, overall medicare rating and daily cost (if applicable)

What information is provided for each facility overall (list of topics)?
Overview:
- Key Facts
    - Nursing home
    - Medicare/medicaid accepted?
    - Daily costs?
- Nearby
    - Home Health care
    - Nursing Homes
    - Hospitals
- Occupancy
    - Beds
    - Percentage occupied
    - Number of residence
    - Private 2 bedroom available
- Best rated Nearby Nursing Homes

Ratings:
- Smart rating
- Medicare Ratings

Staffing & Services
- Skilled Nursing Staff
    - Licensed Staff hours per Resident per Day
    - RN Hours per Resident per day
    - LPN or LVN Hours per Resident per Day
    - CNA Hours per Resident per Day
- Services offered
    - Care Types
    - Medical Services
    - Amenities

Deficiency & Penalty Report
- Deficiencies
- Ombudsman Contact Info

Care Outcomes
- Long-stay residents
- Short-Stay Residents

Employment
- Nurses
- Nursing Assistants
- LPNs

Administration

HealthGrove Compare Nursing Homes (cont.)

- Management Information
- Facility Info

Contact Info:
- Map
- Street view
- Details

Ratings
- Expert Say
  - Health Inspections Rating
  - Quality Measures Rating
  - Staffing Rating
  - Registered Nurse Rating
- Review

References
- Sources
  - Note: Users can edit the page?

Was this Page helpful

Does the site offer any reviews?
Yes Users can review the homes, but not many have reviews.

A Place for Mom

A Place for Mom

What features of your competitors seeming interesting or appealing?
The way the facilities are displayed look pleasing. There is an image, large CTAs, Stars rating for reviews and facility description.
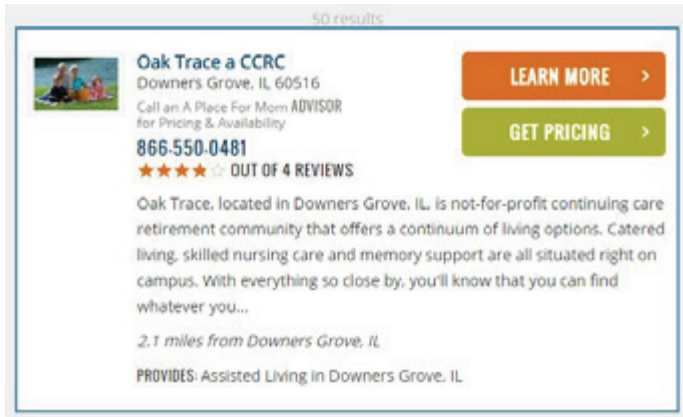
What options were provided for the initial search?
When users first enter the site they are prompted to enter a zipcode only for search (as well as prompted to give information to have a consultant to reach out to them.)

Are there any options to refine the search?
No

Does the site facilitate comparing options easily?
No

Does the site provide a way to save facilities in which the person is interested?
No

What information is shown about the facilities in the initial search results?
Facility name, general location, contact number, review rating, description, distance, Provides, CTA to Learn more or Get Pricing

What information is provided for each facility overall (list of topics)?
Name, address, phone number, pictures, care types, published pricing, description, average rating, community details, show map and Community reviews

Does the site offer any reviews?
It does offer reviews, but takes your to a 3rd party site.

A Place for Mom (Initial Contact Email)

a Place for Mom
Local Experts. Trusted Advisors.℠

1 Connect with Advisor   2 Understand Your Situation   3 Visit Communities   4 Finalize Your Options   5 Select Community

Hello

I wanted to share some thoughts and resources that other families have found helpful in their senior living search. Let's talk once you've had a chance to read them.

In my work, one approach that's successful for a lot of families is the idea of holding a family meeting. At first, that might seem awkward or difficult to plan (or even bring up), but you might be surprised at how receptive other family members are to the idea.

Typically, families are already going through a fair amount of stress in this process, and a family meeting can provide a productive outlet for airing concerns and sharing ideas—even if you're not trying to solve a specific problem.

Here's an article with advice on how to hold a family meeting and some good things to discuss:

Guide to Elder Care Planning & Family Meetings

Here's one more good link, which might give your family a better sense of what modern senior living communities are really like—including fitness activities and even karaoke:

Beyond Bingo: Activities at Today's Senior Communities

I hope these help. We've got a lot of family support resources like these, so if you're dealing with some other problem, just let me know and I'll try to connect you with helpful materials.

I AM YOUR PERSONAL ADVISOR

If you need any help or have any questions, at any step of the way, please reach out to me.

Mary Candler
Senior Living Advisor
866-535-7423
maryc@aplaceformom.com

Saving Item...
Fw: How can I help?

Let's talk soon about visiting a community, so you can see one firsthand. I can help with that, or you can plan a visit on your "**MySearch**" page.

Thanks

Mary

Advisor Tip:
The Easy Way to Schedule Tours

Your personalized MySearch page has all your options mapped out, plus more photos and info.

Go to **MySearch** to schedule a visit to a community automatically.

Senior Living Blog | Essential Caregiver Toolkit | Join Our Q&A Community

Consent Form

ADULT CONSENT TO PARTICIPATE IN RESEARCH

Searching for a nursing home/assisted care facility: Experiences and challenges

Principal Investigator: Graduate Students, Carmen Lowry and Katherine Halbig

Institution: DePaul University, Chicago, Illinois, USA

Department (School, College): Human Computer Interaction

Faculty Advisor: Sheena Erete, College of Computing and Digital Media

What is the purpose of this research?
We are asking you to be in a capstone research study because we are trying to understand experiences and challenges in researching nursing homes/assisted-care facilities. This study is being conducted by Carmen Lowry and Katherine Halbig, graduate students at DePaul University as a requirement to obtain a Master's degree. This research is being supervised by their faculty advisor, Sheena Erete.

We hope to include about 6-8 people in the research.

Why are you being asked to be in the research?
You are invited to participate in this study because you are identified as an individual who has or is currently researching nursing homes/assisted-care facilities for a loved one. You must be age 18 or older to be in this study. This study is not approved for the enrollment of people under the age of 18.

What is involved in being in the research study?
If you agree to be in this study, you are agreeing to participate in a 45 - 60 minute long interview asking about your overall experiences in your research process. And/Or, an observation and brief survey of the usability of a rough prototype which will be developed later in the study.

How much time will this take?
The interview should take about 45-60 minutes. The observation/usability study should take about 30 minutes and a debriefing an additional 10 minutes.

Are there any risks involved in participating in this study?
Being in this study does not involve any risks other than what you would encounter in daily life. You do not have to answer any question you do not want to and you can stop the observation at any time. The data we collect will be used for our team project in HCI 594. Your information will stay anonymous and confidential. Only the team members and the instructor will see the data we gather.

Are there any benefits to participating in this study?
There are no benefits to participate in this study, except for the proud fact you are helping two students obtain their master's degree and accomplish their dream of assisting other users in the future.

Can you decide not to participate?
Your participation is voluntary, which means you can choose not to participate. There will be no negative consequences, penalties, or loss of benefits if you decide not to participate or change your mind later and withdraw from the research after you begin participating.

Who will see my study information and how will the confidentiality of the information collected for the research be protected?
The research records will be kept and stored securely. Your information will be combined with information from other people taking part in the study. When we write about the study or publish a paper to share the research with other researchers, we will write about the combined information we have gathered. We will not include your name or any information that will directly identify you. We will make every effort to prevent anyone who is not on the research team from knowing that you gave us information, or what that information is. However, some people might review or copy our records that may identify you in order to make sure we are following the required rules, laws, and regulations. For example, the DePaul University Institutional Review Board may review your information. If they look at our records, they will keep your information confidential.

You should know that there are some circumstances in which we may have to show your information to other people. For example, the law may require us to show your information to a court or to tell authorities if you report information about a child being abused or neglected or if you pose a danger to yourself or someone else.

Who should be contacted for more information about the research?
Before you decide whether to accept this invitation to take part in the study, please ask any questions that might come to mind now. Later, if you have questions, suggestions, concerns, or complaints about the study or you want to get additional information or provide input about

thisresearch, you can contact the researcher, Carmen Lowry at 847-918-0499 or carmenlowry@yahoo.com, Katherine Halbig at 219-510-2018 or KatherineElyse88@gmail.com or email our professor Sheena Erete at serete@cdm.depaul.edu.

As a class project, this research is not required to be reviewed and approved by the DePaul Institutional Review Board (IRB). If you have questions about your rights as a research subject you may contact Susan Loess-Perez, DePaul University's Director of Research Compliance, in the Office of Research Services at 312-362-7593 or by email at sloesspe@depaul.edu.

You may also contact DePaul's Office of Research Services if:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.

You will be given a copy of this information to keep for your records.

Statement of Consent from the Subject:

I have read the above information. I have had all my questions and concerns answered. By signing below, I indicate my consent to be in the research.

Signature:_____

Printed name: _____

Date: _____

Interview Script

[Introduction]

Thank you for taking the time to talk with us today. My name is _____ and I am a graduate student at DePaul University. We're performing an research project for a capstone course. Our goal is to learn more about your experiences and challenges in researching nursing homes/assisted-care facilities.

Approximate length of interview is between 45 to 60 minutes.

This interview will be semi-structured and may contain some follow-up questions to gain insight. If you have any questions, you may ask now, or at any time during the interview. These questions are not intended to be sensitive or too personal in nature. You are free to decline answering, or you may withdraw from this interview at any time.

I would like your permission to video-record (or voice record) this conversation, is that okay? The recording is for my note-taking purposes only. *(wait for response)*

(if yes) Great, I appreciate that. If at any time, you feel uncomfortable and need me to stop, just let me know.

(if no) Not a problem. Would it be alright if I took some notes during our discussion?

Before we get started, may I please have your signed consent form?

Great, thank you. Let's start.

[Questions]

1) Are you currently searching or how long ago did you search for a nursing home/assisted-care facility?

2) Were you in your 30's, 40's, 50's etc. when you started your search?

3) For whom do/did you have to search for a nursing home/assisted-care?

4) Where did you start your research for a nursing home/assisted-care facility?

5) What resources did you use in your search? (e.g. medicare.gov, ombudsman, etc.)

6) Which did you find most helpful?

7) Did you feel anything was missing? If so, what?

8) During your research, how did you keep track of information you collected?

9) What was the easiest part of the process? What was the most difficult?

10) How did you feel throughout the process?

11) What aspect of the search were most important to you? (e.g. Distance, care type, facility type, etc.)

12) What other features were important to you?
(e.g. care type, VA, pets, medicare/medicaid, profit/nonprofit, religious affiliation, continuing care community, size/number beds, staffing ratio, private rooms, etc.)

13) Would you want to research nursing home/assisted-care facilities via your mobile device?

14) What aspects might be important to you to have access to via a mobile device?

15) How many nursing homes/assisted-care facilities did you consider in your search?

16) Did you do any site visits? If so, please describe your experience. How important was the site visit in your decision-making process? If you can recall, how many facilities did you visit?

17) During your site visit, how did you keep track of information you collected?

18) How long did you take to identify potential facilities / select the final facility?

19) Did you contact or visit the facility's website to answer any questions you had?

20) Did you consult any references/referrals for the facilities you visited? Was feedback from others important to you?

Expert Interview Questions

What resources would you recommend for someone who is researching assisted living for a family member?

What's the most common question those searching for assisted care ask you?

What criteria do you feel is most important to consider when some is starting the search for assisted care?

Once they've created their shortlist, what criteria do people typically use to narrow down their options? (trying to get at those secondary factors like private room, pets, etc.)

What are the best methods for getting referrals?

Are there any other items you feel are important to mention?

Usability Test Script – Moderated

Pre-test Arrangements (3 minutes)

Hello, my name is _____ and I am a student in the Human-Computer Interaction graduate program at DePaul University in Chicago, IL. First, it may be awkward but I actually need to read the following instructions to you, rather than telling them to you, so everyone in the study gets the same information.

I am enrolled in the capstone course required for our degree this quarter. For this class, we work as part of a group to complete a design project. For our project, we looked at how people select a long-term care facility for a family member. In our interviews, we found that the site visit was the most important factor in the decision process. For our project, we decided to develop a mobile app to help an individual keep track of important criteria during a site visit. In addition, our app allows the individual to search for homes and add homes in which they're interested to a list. In our process today, we wish to evaluate a prototype of our app to evaluate the level of satisfaction and determine potential usability obstacles.
.
Today's entire session will take approximately 30 minutes.

-- IF the individual was not interviewed --

    ** Present the Consent form and wait for the participant to read it **

    Ok, great, thank you.

    ** Demographic questions **

    Ask for their age range and ask how long ago they did a search.

    Great, thank you.

To continue the session, we need to have your consent to participate in this usability study. Please, read this form and let me know if you agree with what it says.

May I record our session? The recording will capture the computer screen and anything we say. It will be used by myself to clarify my notes following our session. It may be shared with my project partner, but no one else.

Introduction to the Session (3 minutes)

During the test, I will be sitting near you to observe and record your actions. After each task I will ask you a few questions regarding the task you have just completed.

At the end of the session we will have a few minutes to talk about your overall experience using the app.

Let me remind you that our research team is only concerned with evaluating our prototype and not with the performance of each participant. There is no such thing as a wrong answer.

Also, as stated in the Consent Form, your identity will be safeguarded and any collected data will be reported anonymously.

Lastly, research shows that a great deal of information can be revealed from these observations if we ask participants to think aloud while they work. In practice, all you have to do is speak your thoughts as you complete the following tasks. It may be awkward at first but it gets easier after a handful of tries. If you forget to think aloud, I will remind you to keep talking.

Ok, great.

Before we begin with the first task, do you have any questions about the process and/or the expectations?

Great.

Tasks (20 minutes)

Open app prototype.

https://marvelapp.com/2fja15e

To get started, click Register. The prototype won't allow you to enter information, that's ok, just click Register.

Task 1: Find a home in a pretend zip code that accepts VA benefits and have a private room. View the details for a top-rated home. View the general information for this home.

Pathway(s)	Success (Circle 1)	Notes/Observations/User Feedback
Use search icon to navigate	0 Not completed	*(Note why was the user successful or not successful, e.g., wrong pathways, confusing page layout, navigation issues, terminology)*
Enter search criteria > Search Results	1 Completed with difficulty or help	
Select Filters > Expand Filters > Apply	2 Easily completed	
Sort by Rating OR Scrolls	**Ease of Task (Circle 1)**	
Click on 5-star home to view details	*Ask user how they would rate task?*	
Click on general info to expand sections	Very Easy	
	Easy	
	Neither easy nor difficult	
	Somewhat Difficult	
	Difficult	

Post Task Questions

How would you rate the organization of the home information provided in the search results?
Disorganized 1   2   3   4   5   Very Organized

How would you rate the usefulness of the information provided in the Search Results? (Anything missing?)
Not useful 1   2   3   4   5   Very Useful

How would you rate the usefulness of the search filters and sort options?
Not useful 1   2   3   4   5   Very Useful

How would you rate the organization of the home information provided in the Home Detail?
Disorganized 1   2   3   4   5   Very Organized

How would you rate the usefulness of the information provided on the Home Detail? (Anything missing?)
Not useful 1   2   3   4   5   Very Useful

Task 2: Add the top-rated home to your list. Return to the My Homes screen.

Pathway(s)	Success (Circle 1)	Notes/Observations/User Feedback
Cick + icon to add home to list Click Home icon	0 Not completed 1 Completed with difficulty or help 2 Easily completed	*(Note why was the user successful or not successful, e.g., wrong pathways, confusing page layout, navigation issues, terminology)*
	Ease of Task (Circle 1)	
	Ask user how they would rate task? Very Easy Easy Neither easy nor difficult Somewhat Difficult Difficult	

Post Task Questions

How would you rate the organization of the information provided on the My Homes screen?
Disorganized 1   2   3   4   5   Very Organized

How would you rate the usefulness of the information provided on the My Homes screen? (Anything missing?)
Not useful 1   2   3   4   5   Very Useful

Task 3: HEART Home Assistant allows you to set a reminder for your visit. You have scheduled a site visit for the home on your list for November 17. Set a reminder for your site visit, then return to My Homes.

Pathway(s)	Success (Circle 1)	Notes/Observations/User Feedback
Selects home on list Selects set reminder option Pretends to set date and time Uses home icon to return to home list	0 Not completed 1 Completed with difficulty or help 2 Easily completed	*(Note why was the user successful or not successful, e.g., wrong pathways, confusing page layout, navigation issues, terminology)*
	Ease of Task (Circle 1)	
	Ask user how they would rate task? Very Easy Easy Neither easy nor difficult Somewhat Difficult Difficult	

Post Task Questions

How would you rate the usefulness of this feature?
Not useful 1   2   3   4   5   Very Useful

Task 4: Before going on your site visit, it is recommended that you familiarize yourself with the site visit checklists. Review the checklist items for the home on your list. Return to the Home Evaluation screen for that home.

Pathway(s)	Success (Circle 1)	Notes/Observations/User Feedback
Explores checklist pages	0 Not completed 1 Completed with difficulty or help 2 Easily completed	*(Note why was the user successful or not successful, e.g., wrong pathways, confusing page layout, navigation issues, terminology)*
	Ease of Task (Circle 1)	
	Ask user how they would rate task? Very Easy Easy Neither easy nor difficult Somewhat Difficult Difficult	

Post Task Questions

How would you rate the organization of the checklist items?
Disorganized 1   2   3   4   5   Very Organized

Do you feel that there too few / too many?

How would you rate the organization of the options provided on the Home Evaluation screen?
Disorganized 1   2   3   4   5   Very Organized

Where on the Home Evaluation screen would you tap/click to rate the home?

Task 5: To simulate a site visit, we have chosen a overview video for a home on Youtube. Since the video is not at the pace of a real tour, you may pause it at any time. Watch this video and use the app to find checklist items identified from the video. -- https://www.youtube.com/watch?v=j2HZGUfeNIM

Pathway(s)	Success (Circle 1)	Notes/Observations/User Feedback
Explores checklist pages	0 Not completed 1 Completed with difficulty or help 2 Easily completed	*(Note why was the user successful or not successful, e.g., wrong pathways, confusing page layout, navigation issues, terminology)*
	Ease of Task (Circle 1)	
	Ask user how they would rate task? Very Easy Easy Neither easy nor difficult Somewhat Difficult Difficult	
Post Task Questions		
How did you feel when looking for checklist items for the simulated tour? Ask for feedback on the navigation and organization. Explain the accordion menus and get feedback.		

Wrap-Up Questions (10 minutes)
----

1. What is your level of satisfaction with this app?

Dissatisfied   1   2   3   4   5   Satisfied

2. How did you feel when using this app?

(don't prompt, but looking for responses like overwhelmed or excited…)

3. How would you rate the organization of the content and features in the app?

Disorganized   1   2   3   4   5   Very Organized

4. Given your past experience in selecting a care facility, do you feel this app would be useful?

Not Useful   1   2   3   4   5   Useful

---

5. As part of our design, we have planned for the app to have a partner website. While we have provided some search capabilities in the app, we recognize that selecting a long-term facility may require more sophisticated research. The partner website would provide more detail on the information provided from Medicare.gov, link to important resources for additional information and allow you to compare homes.

You will be able to add homes to your My Homes list on the website and those that you add will be on your list when you open the app.
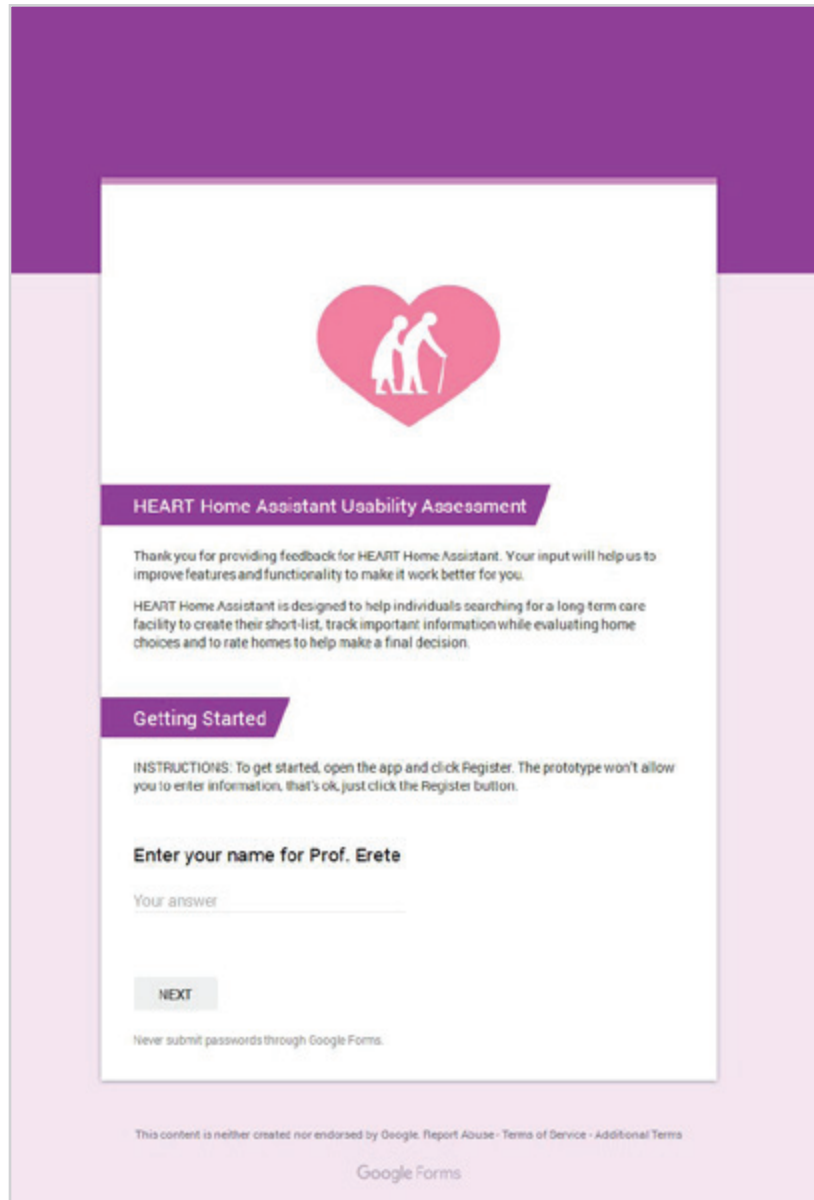
In addition, the partner website would offer tools for you to customize your site visit checklists to meet your needs and preferences. Changes made on the website would be reflected in the app.

How would you rate the following features of HEART Home Assistant?

Partner website	Not important	1	2	3	4	5 Very important
My Homes list	Not important	1	2	3	4	5 Very important
Ability to search for homes in app	Not important	1	2	3	4	5 Very important
Availability of home info, such as Medicare.gov ratings/data, in app	Not important	1	2	3	4	5 Very important
Site Visit reminder	Not important	1	2	3	4	5 Very important
Site Visit checklists	Not important	1	2	3	4	5 Very important
Customize checklists on website	Not important	1	2	3	4	5 Very important
Customize checklists in app	Not important	1	2	3	4	5 Very important
User reviews/ratings on homes	Not important	1	2	3	4	5 Very important

6. Do you have any additional feedback or recommendations for HEART Home Assistant?

Usability Test Script – Unmoderated

HEART Home Assistant Usability Assessment

Thank you for providing feedback for HEART Home Assistant. Your input will help us to improve features and functionality to make it work better for you.

HEART Home Assistant is designed to help individuals searching for a long term care facility to create their short-list, track important information while evaluating home choices and to rate homes to help make a final decision.

Getting Started

INSTRUCTIONS: To get started, open the app and click Register. The prototype won't allow you to enter information, that's ok, just click the Register button.

Enter your name for Prof. Erete

Your answer

NEXT

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Google Forms

Task 1: Find a Home

INSTRUCTIONS: Find a home in a pretend zip code (prototype won't let you type it in, just pretend) that accepts VA benefits and has private rooms. View the details for a top-rated home. View the general information for this home.

Describe the steps you took for this task (i.e. navigation path).

Your answer

Were you able to complete this task?

○ Did not complete
○ Completed with difficulty
○ Completed easily

How would you rate the organization of the information provided in the search results?

○ 1 - Very Disorganized
○ 2
○ 3
○ 4
○ 5 - Very Organized

How would you rate the usefulness of the information provided in the search results?

○ 1 - Not Useful
○ 2
○ 3
○ 4
○ 5 - Very Useful

How would you rate the usefulness of the search filters?

○ Did not find filter option
○ 1 - Not Useful
○ 2
○ 3
○ 4
○ 5 - Very Useful

Although we were not able to implement the accordion menus for the filters accurately in the prototype (they all expand when clicked), do you feel the accordion menu feature on the filter options is helpful?

○ Yes
○ No

How would you rate the usefulness of the sort options?

○ Did not find sort options
○ Did not use sort options
○ 1 - Not useful
○ 2
○ 3
○ 4
○ 5 - Very Useful

How would you rate the organization of the information provided on the Home Detail screen?

○ 1 - Very Disorganized
○ 2
○ 3
○ 4
○ 5 - Very Organized

Although we were not able to implement the accordion menus for the Home Detail screen accurately in the prototype (they all expand when clicked), do you feel the accordion menu feature is helpful?

○ Yes
○ No

How would you rate the usefulness of the information provided in the Home Detail screen?

○ 1 - Not Useful
○ 2
○ 3
○ 4
○ 5 - Very Useful

Comments

Your answer

BACK   NEXT

Task 2: Add Home to My Homes List

INSTRUCTIONS: Add a top-rated home to your list. Return to the My Homes screen.

Describe the steps you took for this task (i.e. navigation path).

Your answer

Were you able to complete this task?

○ Did not complete

○ Completed with difficulty

○ Completed easily

How would you rate the organization of the information provided on the My Homes screen?

○ 1 - Very Disorganized

○ 2

○ 3

○ 4

○ 5 - Very Organized

How would you rate the usefulness of the information provided on the My Homes screen?

○ 1 - Not useful

○ 2

○ 3

○ 4

○ 5 - Very Useful

Comments

Your answer

BACK   NEXT

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Task 3: Set a Visit Reminder

INSTRUCTIONS: HEART Home Assistant allows you to set a reminder for your visit. You have scheduled a site visit for the home on your list on November 17. Set a reminder for your site visit. (You will not be able to actually set the date and time, just pretend.) Return to My Homes.

Describe the steps you took for this task (i.e. navigation path).

Your answer

Were you able to complete this task?

○ Did not complete

○ Completed with difficulty

○ Completed easily

Rate the usefulness of this feature.

○ 1 - Not useful

○ 2

○ 3

○ 4

○ 5 - Very Useful

Comments

Your answer

BACK   NEXT

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Google Forms

Task 4: Site Visit Checklists

INSTRUCTIONS: Before going on your site visit, it is recommended that you familiarize yourself with the site visit checklists. Review the checklist items for the home on your list. Return to the Home Evaluation screen for that home.

Describe the steps you took for this task (i.e. navigation path).

Your answer

Were you able to complete this task?

○ Did not complete

○ Completed with difficulty

○ Completed easily

How would you rate the organization of the checklist items?

○ 1 - Disorganized

○ 2

○ 3

○ 4

○ 5 - Very Organized

Do you feel the checklists are too long?

○ Yes, there are too many items

○ No, seems reasonable

○ No, they could actually be longer if needed

Although we were not able to implement the accordion menus for the Checklist screens in the prototype (subsections are already expanded), do you feel the accordion menu feature is helpful?

○ Yes

○ No

How would you rate the organization of the Home Evaluation screen?

○ 1 - Disorganized

○ 2

○ 3

○ 4

○ 5 - Very Organized

Did you realize there are 8 checklists on the Home Evaluation screen?

○ Yes

○ No

Where on the Home Evaluation screen would you tap/click to rate the home?

Your answer

Comments

Your answer

BACK   NEXT

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Task 5: Simulated Site Visit

INSTRUCTIONS: To simulate a site visit, we have chosen a overview video on Youtube for a home. Since the video is not at the pace of a real tour, you may pause it at any time. Watch this video and use the app to identify checklist items on your simulated tour. Note: You will not actually be able to select any of the rating options in the prototype; just pretend. – https://www.youtube.com/watch?v=j2HZGUfeNlM

Describe the steps you took for this task (i.e. navigation path).

Your answer

Were you able to complete this task?

○ Did not complete

○ Completed with difficulty

○ Completed easily

Which checklist items did you identify?

Your answer

How did you feel when looking for checklist items for the simulated tour?

Your answer

Comments

Your answer

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Wrap-up Questions

What is your level of satisfaction with this app?

○ 1 - Very Dissatisfied

○ 2

○ 3

○ 4

○ 5 - Very Satisfied

How did you feel when using this app?

Your answer

How would you rate the organization of the content and features in the app?

○ 1 - Very Disorganized

○ 2

○ 3

○ 4

○ 5 - Very Organized

Do you feel this app is useful?

○ 1 - Not Useful

○ 2

○ 3

○ 4

○ 5 - Very Useful

Our Proposed Design

As part of our design, we have planned for the app to have a partner website. While we have provided some search capabilities in the app, we recognize that selecting a long-term facility may require more sophisticated research. The partner website would provide more detail on the information provided from Medicare.gov link to important resources for additional information and allow you to compare homes.

You will be able to add homes to your My Homes list on the website and those that you add will be on your list when you open the app.

In addition, the partner website would offer tools for you to customize your site visit checklists to meet your needs and preferences. Changes made on the website would be reflected in the app.

How would you rate the features of HEART Home Assistant?

	Not important	Somewhat Important	Important	Very Important
Partner Website	○	○	○	○
My Homes list	○	○	○	○
Ability to search for homes in app	○	○	○	○
Availability of home info, such as medicare.gov ratings/data, in app	○	○	○	○
Site Visit Reminder	○	○	○	○
Site Visit Checklists	○	○	○	○
Customize checklists on website	○	○	○	○
Customize checklists in app	○	○	○	○
User reviews/ratings on homes	○	○	○	○

Do you have any additional feedback or recommendations for HEART Home Assistant?

Your answer

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