FluffyHome:

Find a pet-sitter for free

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Abstract

More than 50% of American families have at least one pet nowadays, and the number is still rising. Pet caring needs are also growing with it. When people need to leave home for work or vacation, leaving pets home alone might bother some pet owners. There are several ways to solve this problem, including asking friends and family for help or finding a pet sitter online. Unfortunately, these approaches all have limitations from the perspective of time, cost, efficiency, and convenience.

This paper presents a prototype of a web application named FluffyHome to solve these problems. FluffyHome offers a new perspective. By letting people send an order and letting sitters accept the order, FluffyHome can help users save more time on filling multiple forms as in existing sites. By using the credit system, FluffyHome allows people to get a pet sitting system for free. Moreover, if no peer-to-peer sitter takes the order on time, the user can always transfer the peer-to-peer order into paid order, so that they can find the professional paid sitters on the website just like other pet-sitting websites. In short, by blending a credit-based approach with the commercial approach, FluffyHome users can take advantage of each.

This paper compares FluffyHome with the "asking for help" method and the online competition of websites providing similar features, and it prevents a lab study that showed using FluffyHome to find a pet-sitter is cheap and more convenient compared to the competition.

1.   Introduction

Nowadays, more and more people have at least one pet in their home. In 2019, more than 50% of American Households hold at least one pet, which means more than 63 million homes owns at least one pet (The American Pet Products Association). Moreover, 43 percent of non-pet owners intend to own a pet in the future, adding to the demand for pet-related services as the massive number of pets continues to grow (Figure 1).
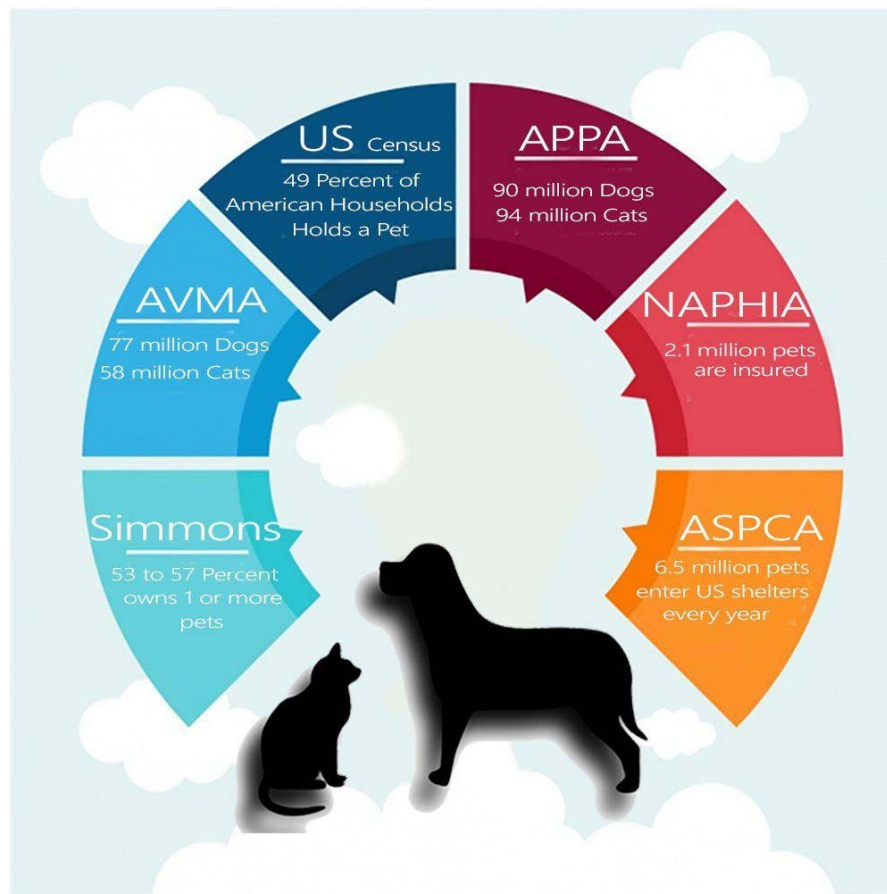

Figure 1: more than 50% American Households holds at least one pet (Baker, Blumberg and

Brick,2019)

Moreover, people tend to spend more and more money on their pets over the past decade (Figure 2). From 2010-2019, the total U.S. pet industry expenditures also have grown very rapidly from 48.4 billion dollars in 2010 to 75.4 billion dollars in 2019.

Total U.S. Pet Industry Expenditures, 2010-2019

$ 2010 - $ 48.4 (Billions)

$ 2011 - $ 51

$ 2012 - $ 53.3

$ 2013 - $ 55.7

$ 2014 - $ 58

$ 2015 - $ 60.3

$ 2016 - $ 66.8

$ 2017 - $ 69.4

$ 2018 - $ 72.6

$ 2019 - $ 75.4

Figure 2: People tend to spend more money on their pets (Brulliard and Clement,2019)

Pet owners spent an average of $1649 on a dog and $988 on a cat every year, including $322 for a dog and $164 for a cat on kennel boarding (Brulliard and Clement). In fact, this means pet owners spent more than 15% of the total on pet kennel boarding.

Considering that such a high percentage of families own a pet, it's not that difficult to imagine many of them have some situations that need someone else to take care of their non-human family members. In 2013, 25% of families with pets tried to avoid taking holidays or tried to have a much shorter holiday because of their pets (Brulliard and Clement). Some of them felt guilty about leaving their pets at home alone and fell concerns about the pets. Factors like these drive an increasing demand for pet-sitting services.

When it comes to pet-sitting, most people could ask a friend or neighbors to take care of their pets first. Yet not all people can find a friend to looking after their pets, especially for those who need to go to other cities frequently or need to leave for a couple of days. And also, sometimes, it's hard to find an available friend who actually knows how to take care of a pet.

Some people try to find help through pet-sitting website such as Rover.com. People can buy or sell pet caring services on these websites, which provide basic features to search for different kinds of pet sitters and review the sitter's portfolio.

But using this kind of "convenience" service is very expensive. Most of these websites take 15%-20% booking fees for each dog sitting/boarding services, and for the Quick Match walking service, the website might take up to 40% booking fees for each order (Johnson).

Also, another concern is that some of the "professional sitters" on the internet might not really like pets. It's difficult for pet owners to know the pet sitter in person, and it's hard to know if the sitter really knows how to take good care of pets.

FluffyHome solves these problems. FluffyHome is a website that allows people to get pet-sitting service by using credits, and the customers can look after for other pets to earn the credits—which means that using the peer-to-peer model of FluffyHome for pet-sitting service is free, unlike the competition. As a result, people could save a lot of money on pet-sitting by using FluffyHome. Moreover, because, all users on FluffyHome are pet owners themselves, at least they know about pets and love animals enough to have a fluffy friend of their own.

The remainder of this document is organized as follows. Section 2 outlines the Related Work and limitations of existing approaches. Section 3 indicates the 3 key claims of the system about why FluffyHome is innovative. Section 4 discusses the evaluation of key claims. Section 5 summarizes conclusions and opportunities for future work.

2.   Related Work

There are several ways for people to find a way to take care of their pets when they are not home. Though each method has different advantages, and they also show some limitation in different ways. The most important is that none of these methods are both cheap and convenient (unlike the peer-to-peer approach of FluffyHome). The review of some of the most-used tools and their limitations is presented below.

2.1　Looking for help from friends or neighbors

Looking for help from friends or neighbors is always a good idea for almost everything. When people try to find someone to take care of their pets, they often seeking help from their friends of neighbors.

The biggest advantage of that is it's usually free, and also, people can trust well-known friends or neighbors to take good care of their pets.

But the disadvantage is very obvious as well:

- Some people feel a lot of pressure when asking other people for help, especially for free help. And things are getting worse when people ask for some kind of help from the same person over and over again.

- People can't always find a friend willing and have time to take care of their pets. And also, not all people know how to take care of a pet.

- Sometimes, there is no enough time to ask a friend before the pet owner travels.

In the end, although having friends and neighbors sit for pets can work well in limited circumstances, eventually it is important to find another supplementary approach for use in the numerous situations when friends and neighbors aren't enough.

2.2 Find a paid sitter online

To fulfill the big market of pet sitting services, there are a lot of pet sitting websites providing services for people to find a paid pet sitter.

2.2.1 Rover.com and similar geography-based commercial services

The biggest and most widely used pet sitting website is Rover.com.

Rover.com provides all kinds of services related to pets, including dog boarding, pet drop-in visiting, pet house sitting, etc. (Figure 3). It allows users to search for sitters and then book and pay on Rover (Figure 4).

Dog Boarding
Perfect if you need overnight pet care.

House Sitting
Great if you need overnight pet or house–sitting services.

Dog Walking
Whenever your dog needs a walk.

Doggy Day Care
Daytime pet care in your sitter's dog–friendly home.

Drop–In Visits
For check–ins and play dates.

Figure 3: Rover.com provides many kinds of services related to pet sitting

We're the treat-your-dog-like-family dog people

1

Search

Read verified reviews and pick the perfect sitter.

2

Book & pay on Rover

Book and pay securely through the website or app.

3

Relax

Get the Rover Guarantee, 24/7 support, and reservation protection.
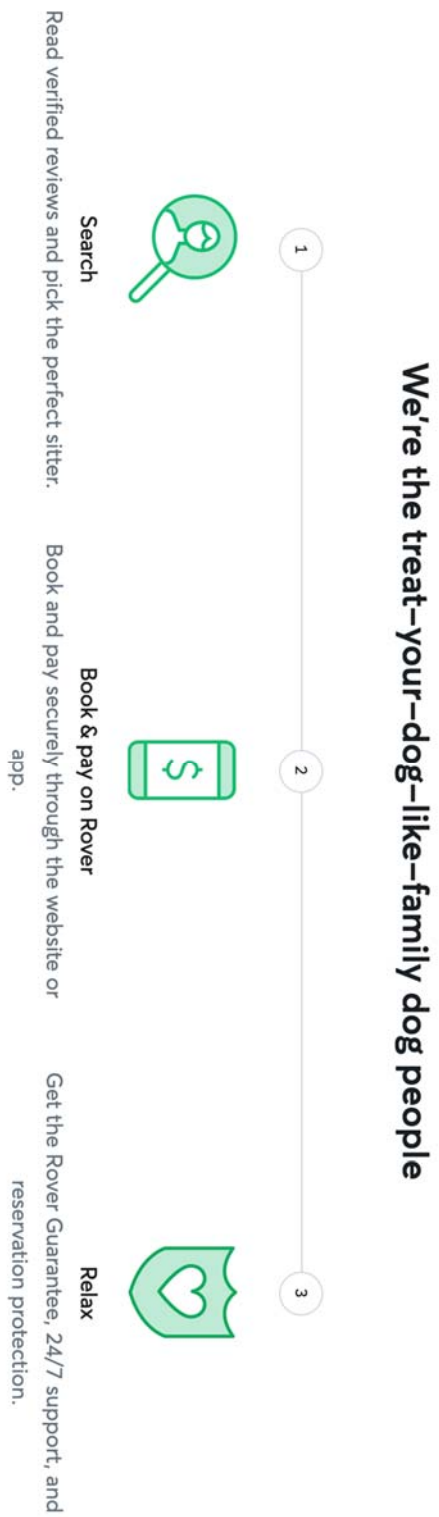
Figure 4: how to use Rover

After selecting and filling a different kind of selected conditions, the rover shows a list of

pet sitters near to the zip code the user enters. (Figure 5) The web page contains different

filters, the basic information of the sitters and maps showing the location of the sitters.
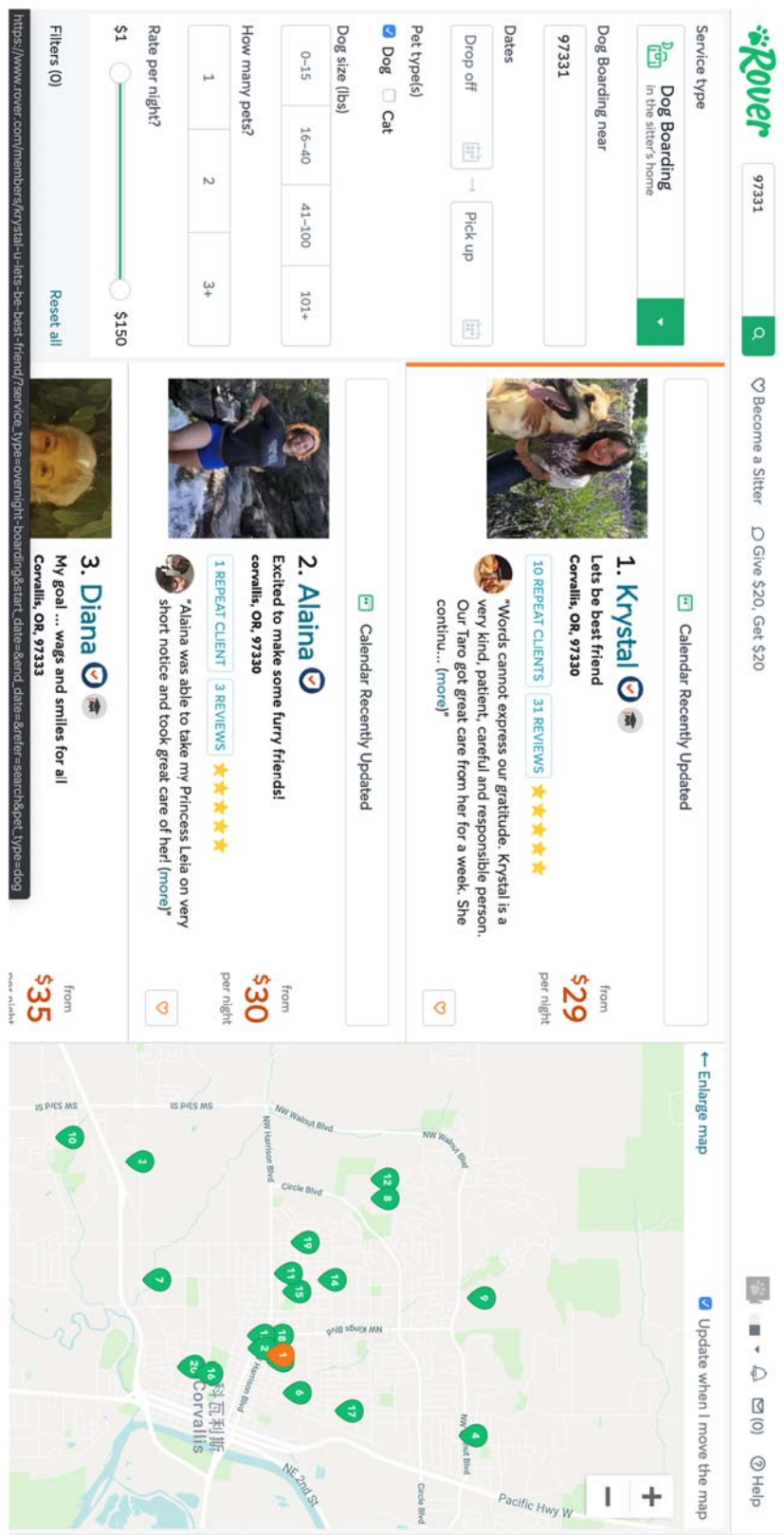
Figure 5: the pet sitter lists

Figure 6: public profile for a sitter

For each sitter, Rover also provides a public profile for the user to review, including the schedule, cost, and comments for this specific sitter (Figure 6). Users can see the preference, available time and the rating for the sitter.

The biggest advantage of Rover.com is that it's very convenient for the user to select a sitter based on geography and reviews. But there is also a very big problem. The average price of one night for pet-sitting is around $30. And even worse, for each booking in Rover.com, the company took at least 20% fees. Then, when a user finds a sitter that seems perfect, he has to send the sitter a contact form contains the detail information (Figure 7), and then wait until the sitter replies. That means if the sitter didn't approve the service, the user has to fill another form when trying to contact other sitters. Other websites such as DogVacay.com, Care.com, and FetchPetCare.com also run services for searching a list of pet sitter services based on geographical region like Rover.com does, but all of them are likewise quite expensive and present a series of forms that users must complete. Having to fill out many forms for the opportunity to pay a big price makes these existing commercial services less usable, less affordable, and overall much less desirable than a pet owner could want.

Figure 7: Contact form

2.2.2 PetFarm.com and similar peer-to-peer paid communities

There are also some online pet sitting websites that offer a yearly fee to join a community

of pet sitters. PetFam.com is an example that promises to provide the pet sitting service for "free"

for a year after the user joins the "community" like PetFam. (Figure 8)

How Does PetFam Work?

Browse Nearby
Exchangers

Add Your Pet and
Member Profile

Swap Unlimited
Pet Care

Subscribe to connect — the rest is free

Figure 8: Subscribe to PetFam and get free pet care service

The annual fee is $75, which although not free is at least not as unaffordable as the commercial services mentioned earlier in this report. PetFam claims that it will refund 100% if no "exchange" services were made in a year.

According to the safe exchange guide on the PetFam website, after a user has paid for the annual fee, he should fill a very detailed personal information form and submit it. The user then, in separate steps, needs to schedule several phone interviews with different members in PetFam Community and discuss pet-sitting frequency, schedules and other pet swapping details. If the user finds a good match, he can add the user into his "PetFam circle." When the user needs subsequent pet sitting service, he can just send information into the PetFam circle and wait to see if any other others within that group choose to pick up his request.

But there are two main limitations to such a system. The first one is the user needs to spend a lot of time to find a good match. Before he builds a good PetFam Circle, the user cannot even request to use the "free pet-sitting service" advertised by the site. Second, even when 3 or 4 users build a PetFam Circle, it's hard to tell that each member from the circle are equally

enjoying the pet-sitting service or actually giving others free service (versus only taking service

from others). PetFam doesn't have a standard or reward system for people who sitting others'

pets. Some people might take advantage of that, they might ask others to take care of their pets

very often but seldom look after for others' pets. In a short word, PetFam don't have a system to

balance the user's right to get the pet sitting service against the users' responsibility of looking

after other members pets.

The frustration is over. Here's how easy it is to find free, loving, in-home pet sitting, today!

Create a Profile
- Photos
- Sitting experience
- Care you're seeking
- Care you're offering
- References

Send/Receive Inquiries
- Browse sitters
- Send inquiries
- Discuss needs
- View references
- Meet

Start Exchanging
- Swap loving, reliable care
- Send photos & updates
- Provide testimonials
- Add others to your PetFam

❤️ All pet types, special needs and breeds welcome ❤️

Why Pets Love PetFam
- Kennel free, non disruptive in-home care
- One on one attention, baby talk & belly rubs
- Increased activity & socialization
- Minimized neglect
- Many members are experts in special needs

Why Pet Owners Love PetFam
- Work long hours & enjoy holidays, guilt-free
- No more imposition or last minute panic
- Rest easy knowing pets are well loved & cared for
- Effortless set up, communication & support
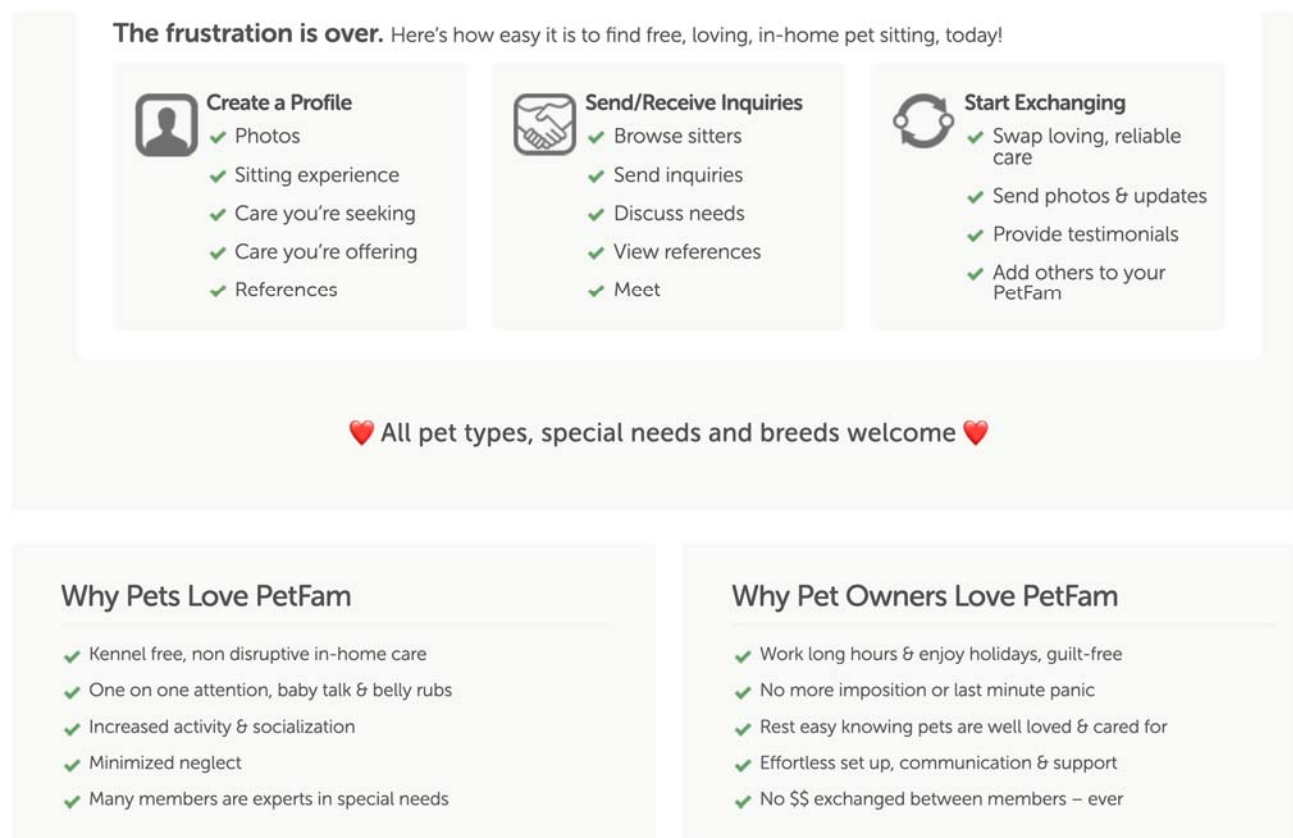- No $$ exchanged between members – ever

Figure 9: How PetFam works

The idea of having a group of people to take care of each other's pets is good. However,

the limitations of petFam are very obvious. PetFam only provide a place for people to know other

people who have pet-sitting needs, for one single pet-sitting service, the user has to ask other

members by message and schedule the service manually. Using PetFam might not expensive, but definitely not efficient nor convenient.

There are also some other similar online pet sitting communities, but they all have similar limitations.

For example, dogma.me is also a peer-to-peer pet sitting communities' website that allows users to post a request about their pets and all other users have the same zip code with the user who send the request can see the post. But it doesn't have a proper system to motivate people to take care of other pets. It only says that "Once you have requested for pet sitting within your neighborhood, please make sure you accept pet sitting requests from other members." Although it provides a so called "point system", When a user accepts an order, he can get points, and when he uses the pet-sitting service from others, he got deducted points. The thought of using points to represent the users behavior of using and provide service in the community is good, however, Dogma doesn't limit users who have negative points to send requests, the websites require users to review the information of the people who send the request before accept the request. That's definitely not a good way to encourage people to provide pet-sitting service to the community, since the people who want to accept an order should not only check the schedule and other important information for the request, but also need to check whether the person who post the request is a "good community contributor".

There are also some websites provide paid community pet-sitting service, such as purrsandgrrs.com and purrificpetsitting.com. Those websites are more like companies provide pet-sitting service and get paid for it. The cost is very, for example, purrs & dgrrs provide pet sitting service for about 30 dollars per hour (Figure 10). Although using this kind of service is very

convenient, the customer only needs to call them or book on the website. But the price is very expensive.

Figure 10: pet sitting cost in Purrs & Dgrrs.com

2.3 Conclusion

Although each approach of finding a pet sitter above have different advantages, they all have some issue either with cost or convenience. FluffyHome offers a new perspective. By letting people send the order and let sitters accept the order, FluffyHome makes users with pet sitting needs to save more time on filling forms. By using the credit system, FluffyHome allows people to get a pet sitting system for free.

3.   Solution

3.1 FluffyHome prototype overview and description

FluffyHome offers features to find a pet sitter online for free when users have to leave home (Figures 11 and 12). People can create an order post about their needs on the website and wait for other users to take the order. They can also send requests to other users. Moreover, if no peer-to-peer sitter takes the order on time, the user can always transfer the peer-to-peer order into paid order, so that they can find the professional paid sitters on the website just like other pet-sitting websites. In short, by blending a credit-based approach with the commercial approach, FluffyHome users can take advantage of each.
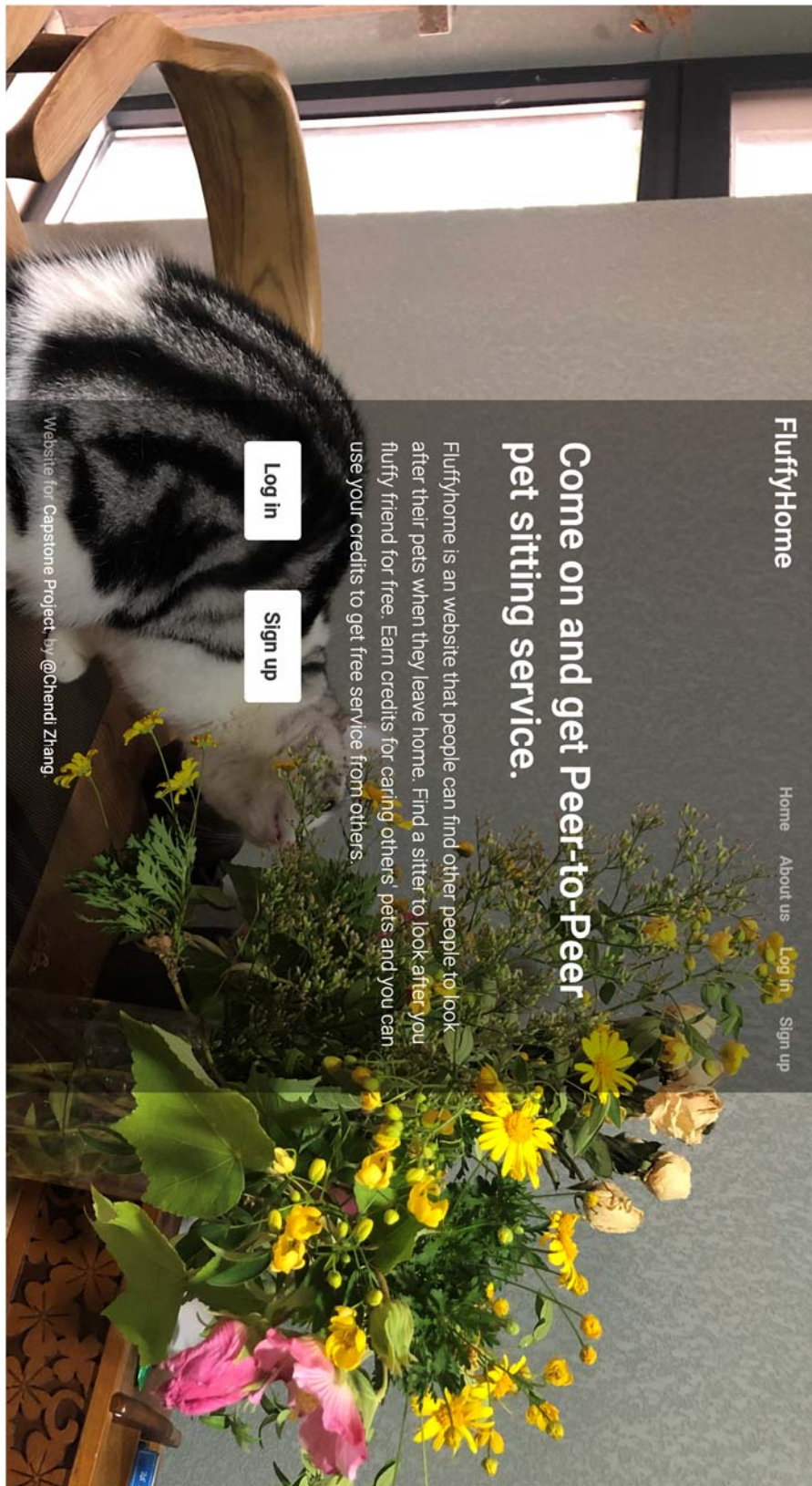
Figure 11: Home Page of FluffyHome

The figure below shows the main architecture of FluffyHome. (Figure 12)
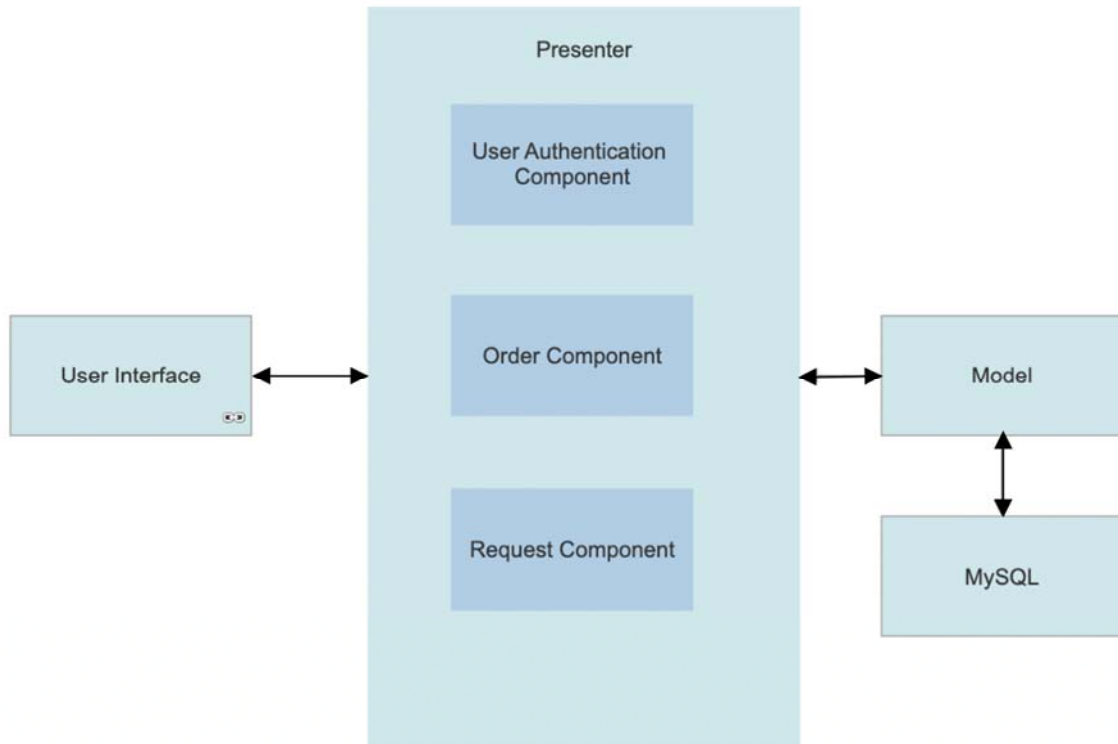
Figure 12: Main architecture of FluffyHome

3.2 User Interface and design

The user interface for FluffyHome is the webpage. It is the main entry point of the application.

FluffyHome has two main roles for users. When the user Sign up, there will be a checkbox for them to choose the role, a peer-to-peer user or a professional paid sitter.

Figure 13: sign up page

For the peer-to-peer users, the user interface allows users to create a profile, including personal information, contact information, and their pet's information. After creating the profile, users can create orders and take orders from other peer-to-peer users.

For the paid sitter module, the user interface also allows professional sitters to create their own account. The sitters can use FluffyHome to accept the paid orders.

The user interface changes based on the different role of the user after the user log in, as explained below.

3.2.1 User Profile Component and Authorization

After Register, users can log in to the system on the login page. The system will automatically recognize their roles and showing different navigation interface.

For the peer-to-peer users, the navigation contains Market, Find a Sitter, My Orders, My Requests Pages. And the username and the available credits are also showing on the navigation bar (Figure 14). For the professional-sitter users, the navigation only contains Market, My Orders, My Requests. (Figure 15).

Figure 14: PEER-TO-PEER user Navigation

Figure 15: professional sitter Navigation

Users are allowed to review their profile on My Profile page and edit some of their personal information in Edit Profile Page (Figures 16-17).

My Profile

User ID: 1

User Name:	testuser1
Email:	li.z@gmail.com
Phone Number:	5419089405
Credits:	10
Zip:	97330
Address:	1400 SW mo.
User Type:	NORMAL
AvaliableWeekday:	Wednesdays , Thursdays , Saturdays ,
Average Rating:	★★★★★ 5 /5.0 (1 ratings)

Back

Edit

Figure 16: My Profile Page

Figure 17: Edit Profile Page

Peer-to-peer users also can add or edit their pet's info in My Pets and Add a Pet page

(Figures 18 and 19).

Figure 18: My Pet Page

Figure 19: Add a Pet

There is a public profile page that allows all the users to see one particular users' information (Figure 20). Note that users may choose to omit information in their profile if they want to control their privacy, although as with other existing systems (like Rover.com), it is expected that users will need and want to share address information because it is necessary to do so for a sitter to find their house.

Figure 20: Public Profile

3.2.2 Order Component and Credit System

The credit system is one of the core designs in FluffyHome. The basic logic is very simple.

When a user created a peer-to-peer order, the credit will automatically deduct from the user's

account. If an order was canceled, the credit will automatically return to the creator's account.

When an order is complete, the acceptor of the order will get the credit.

Market Overview

The Market is a place that users can see the orders that is available for pick up, users can choose to accept others order here. Users can also see their own orders showing up in the Market page, without an Accept button (Figure 21).

Market

Accept orders to get credits!

Order Number : 91

Credits : 10

Zip : 97330

Start Date : Apr 29, 2020

End Date : May 1, 2020

Order Description : could someone please looking after my dog bob?

See Detail   Accept

Order Number : 92

Credits : 5

Zip : 97330

Start Date : Apr 29, 2020

End Date : Apr 30, 2020

Order Description : I'm out town for 1 days, pleas take good care of my cat

See Detail

Order Number : 90

Credits : 5

Zip : 97330

Start Date : Apr 17, 2020

End Date : Apr 18, 2020

Order Description : I want someone looking after my little kitten

See Detail   Accept

Figure 21: Market Page

The orders showing in the market are ordered by the start date of the order.

In My orders Page, the user can create, review or delete orders they already created. Based on the order status, the user can have different operations on different orders. For example, if an order hasn't accepted by other users before the start date, the order will be expired and can't be accepted by other users anymore, so there is only a delete button on the expired order card (Figures 22-24).

Choose **Created** to view all created order, **Accepted** to view all accepted order

Created   **Accepted**

Create Order

Order Number : 91
Waiting for accept

Credits : 10

Zip : 97330

Start Date : Apr 29, 2020

End Date : May 1, 2020

Order Description : could someone please looking after my dog bob?

See Detail

Change to Charged Order   Delete

Order Number : 90
Waiting for accept

Credits : 5

Zip : 97330

Start Date : Apr 17, 2020

End Date : Apr 18, 2020

Order Description : I want someone looking after my little kitten

See Detail

Change to Charged Order   Delete

Order Number : 36
Complete

Credits : 10

Zip : 97330

Start Date : Feb 17, 2020

End Date : Feb 19, 2020

Order Description : I want someone looking after my little kitten

See Detail   Rate

Figure 22: My Orders_ Created Order 1

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Order Number : 34
Expired

Credits : 10

Zip : 97330

Start Date : Jan 23, 2020

End Date : Jan 25, 2020

Order Description : create a new order

Delete Order

Order Number : 33
Expired

Credits : 5

Zip : 97330

Start Date : Jan 21, 2020

End Date : Jan 22, 2020

Order Description : I want someone looking after my pets, including my dog and cats

Delete Order

Order Number : 21
Complete

Credits : 10

Zip : 97330

Start Date : Jan 18, 2020

End Date : Jan 20, 2020

Order Description : testcredites

See Detail   Rate

Figure 23: My Orders_ Created Order 2

Figure 24: My Orders_Created Order 3

Figure 25: Rate a Completed Order

After an order complete, the creator and the acceptor of the order can rate each other by clicking the "Rate" button on the order card (Figure 25). The rating is updated in the user profile.

When a user accepts an order from Market, they can review and do some operations to the order on My Orders page as well (Figure 26).

Choose **Created** to view all created order, **Accepted** to view all accepted order

Created   **Accepted**

Create Order

Order Number : 93
In Progress

Credits : 5

Order Description : my dog loves playing balls, please walk him once a day and play ball with him,

Zip : 97330

Start Date : Jun 18, 2020

End Date : Jun 19, 2020

See Detail   Cancel

Order Number : 92
Complete

Credits : 5

Order Description : I'm out town for 1 days, pleas take good care of my cat

Zip : 97330

Start Date : Apr 29, 2020

End Date : Apr 30, 2020

See Detail   Rate

Figure 26: My Orders_Accepted Orders

Setting Order Details

When clicking the Create Order button on My Order Page, the interface will be directed

to the Create Order Page (Figure 27).

The user can create a peer-to-peer order by not checking the checkbox or create a paid

order by checking the checkbox.
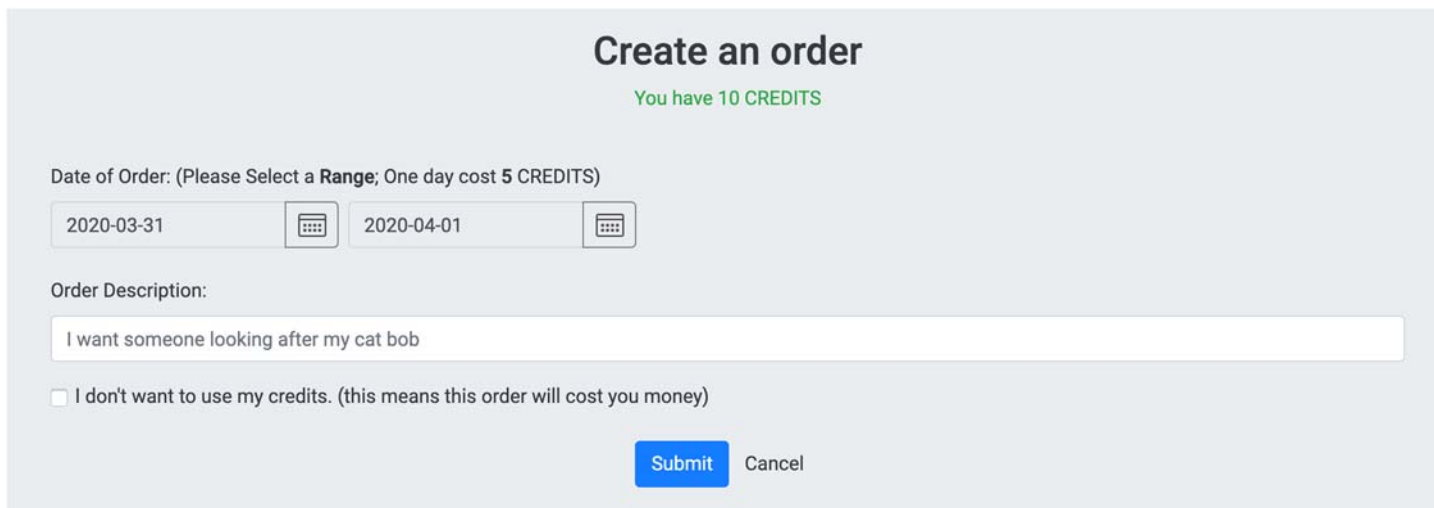
Figure 27: Create an Order

User can choose the range of the date of the order when creating the peer-to-peer

order, user can only select a range that they can afford by credits; for example, if the user has

10 credits, he can only create an order with a date range of 2 days maximum (Figure 28).

Figure 28: Create an Order _ Select data range

Clicking the "See Detail" Button takes the user to the Order Detail (Figure 29).

Order Number: 93

Credits :   5

Zip :   97330

Address :   1421 sw 14th st. See in Google Maps

Start Date :   Jun 18, 2020

End Date :   Jun 19, 2020

Order Description : my dog loves playing balls, please walk him once a day and play ball with him,

Poster & Pets :   rachle

State :   ACCEPTED

Acceptor :   testuser1

Cancel

Back

Figure 29: Order Detail Page

The order detail page contains the detailed description of the order, and the interface will change based on the relationship between the user and the order and the order status. For example, if the user is the acceptor of the order, and the order is not complete yet like showing in Figure 11, the user can cancel the acceptance of the order in the order detail page. Also, the user can see the address on a Google map by clicking the link "See in Google Map" (Figures 29-31). The inset within the map (Figure 30) shows the specific address information as well as the standard Google feature for obtaining directions to the house.
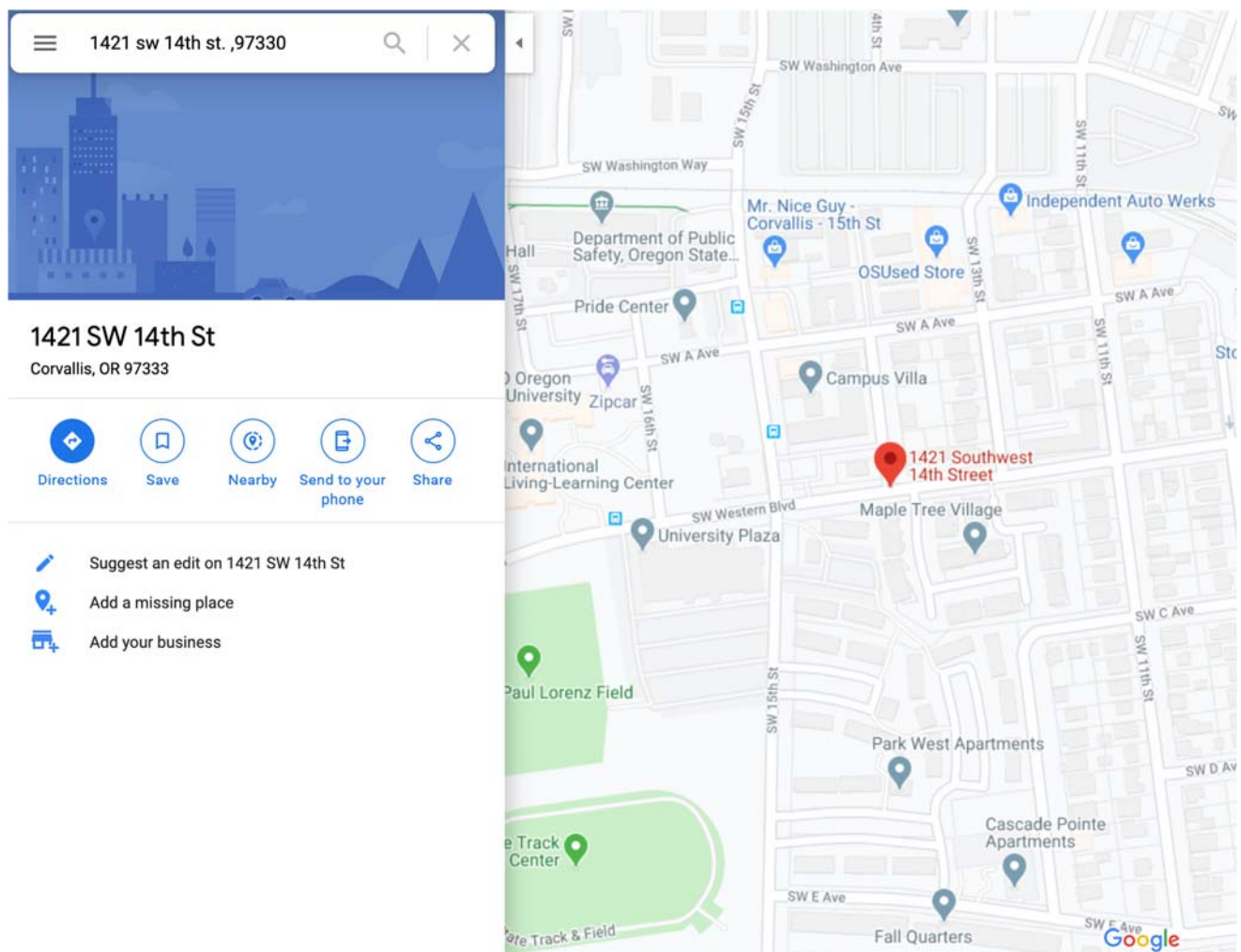
Figures 30 (inset) and 30: showing order address on Google Map

3.2.2 Request Component

Peer-to-peer users can see all peer-to-peer sitters or professional sitters on the Find a Sitter page (Figure 31).

Figure 31: Find a Sitter Page

They can send request to specific user for specific order they've created (Figure 32).
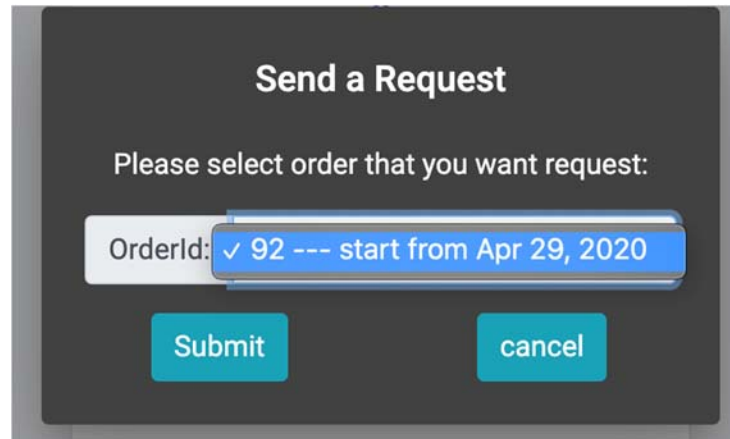
Figure 32: send a request

And on My request page, users can see the request they have send and received, each request message will also be showing the status of the request. When an order is no longer available for pick up, all of the requests related to the order will automatically become expired (Figures 33-35).

Sent   Received

New Requests:

Request to user 8

See Order Detail

For Order 91 start from Apr 29, 2020

Waiting

Request to user 9

See Order Detail

For Order 90 start from Apr 17, 2020

Waiting

Figure 33: My Request _ Sent Request 1

Page 43

History Requests:

Request to user **11**
For Order **37** start from Feb 13, 2020
See Order Detail
Accepted

Request to user **12**
For Order **36** start from Jan 30, 2020
Expired

Request to user **8**
For Order **33** start from Jan 21, 2020
Expired

Request to user **6**
For Order **33** start from Jan 21, 2020
Expired

Request to user **4**
For Order **21** start from Jan 18, 2020
See Order Detail
Accepted

Figure 34: My Request _ Sent Request 2

For and received requests, the user can click the accept or decline button to accept or decline the request. Accept the request also means accept the order related to the request.

Choose **Sent** to view all sent requests, **Received** to view all received requests

Sent   Received

Go find a sitter

New Requests:

Request from user **1**
For Order **90** start from Apr 17, 2020
See Order Detail
Accept   Decline

History Requests:

The FluffyHome prototype currently does not have a geographical search feature, but one could be added in the future. For now, the system was designed to be sufficient for evaluating claims about its usefulness within one particular geographical community (Corvallis), as described in Section 4.

3.3 Backend, Storage, and logging

FluffyHome uses MySQL as the database, as well as Spring boot and Mybatis as the backend framework [11][12][19]. Http is used for communication between the front and back end. The front and backend of FluffyHome are deployed on AWS. There is a logger in the backend in case there is something wrong with the Database or backend interface. The log of FluffyHome was output into a log file in the root directory. If anything goes wrong, there is a log file for tracking the bug or analyzing errors.

4. Laboratory Study Evaluation

There are three main claims about FluffyHome：

1. FluffyHome can save money for pet-sitting service compared to other online web services.

2. FluffyHome has good usability. Users can easily know how to use it.

3. FluffyHome is satisfying and worth to use, there are potential for FluffyHome to develop and have more users.

4.1 Study Objectives

In order to evaluate the claims above, a laboratory study has present and focused on these problems:

1. Do the users agree with FluffyHome can help them to save more money on pet-sitting service after using FluffyHome and another online pet-sitting website?

2. Do the users figure out how to use the system by themselves?

3. Will the users recommend FluffyHome to other people who have pet-sitting needs after trying out the system?

4.2 Methodology

Eight pairs of people (16 people) were divided into two groups participate in the lab study and trying out FluffyHome and Rover.com.

Group A: Following the study instructions, the testers using FluffyHome to create/accept pet-sitting orders from their partner first, then trying out Rover.com, searching and reviewing pet-sitters information.

Group B: Following the study instructions, the testers using Rover.com, searching and reviewing pet-sitters information first, then trying out FluffyHome to create/accept pet-sitting orders from their partner.

Instructions for creating a FluffyHome account were as shown in Figure 36. For each system, users were instructed to complete tasks involving placing and receiving orders on FluffyHome, as well as sending and receiving requests on Rover.com (Figure 37). For this portion of the study, each user was assigned a "partner" account (of some other user) with which to interact. Finally, after finish using FluffyHome and Rover.com, each tester was ask to fill a survey (see section below for detailed questions).

1. Open FluffyHome on your Chrome.
2. Create an account with **Sign Up without checking the last checkbox**, please remember your **phone number**, it is required for login
3. **Log In** with your created account,
4. **Modify** your profile
5. **Add** at least one pet

Figure 36: Lab Study - FluffyHome setup

Try out the system for 15 minutes with your partner and at least finish these tasks.
  Orders tasks:
  ● Each person should Accept at least one order from Market
  ● One person from the group should **accept another's order**
  ● The creator of the order should **complete** the order and then **rate** it to each other.
  ● Try out **cancel** an order you already accepted
  ● Try to **delete** orders that you have created but have **not yet completed**

  Requests tasks:
  ● Each person should **send** a request to another one
  ● Each person should try out **accept and/or decline** the request

Figure 37: Lab Study test tasks

4.3 Lab Study Result

During the Lab Study, all of the groups were able to finish all tasks in 15 minutes. No claims were made about whether FluffyHome is faster to use than Rover.com, so the specific breakdown of time between systems was not measured.

The survey results confirmed that users agreed with the claims about money savings, ease of use, and whether they'd recommend the system to friends (Figures 38-40). No user disagreed with any of the claims. The majority of users strongly agreed with the claim about affordability and the claim about whether they would recommend FluffyHome, while a majority agreed with the claim about ease of use.
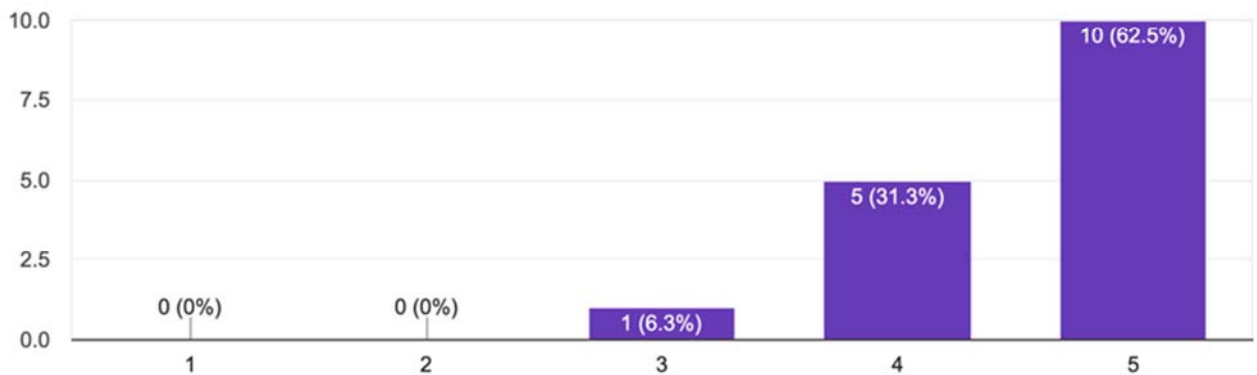
Figure 38: Survey results on affordability

Do you think FluffyHome is very easy to use? From Strongly Disagree(1) to Strongly Agree(5)

16 responses

Figure 39: Survey results on ease of use

Would you recommend FluffyHome to your friends who have pet-sitting needs? From Strongly Disagree(1) to Strongly Agree(5)
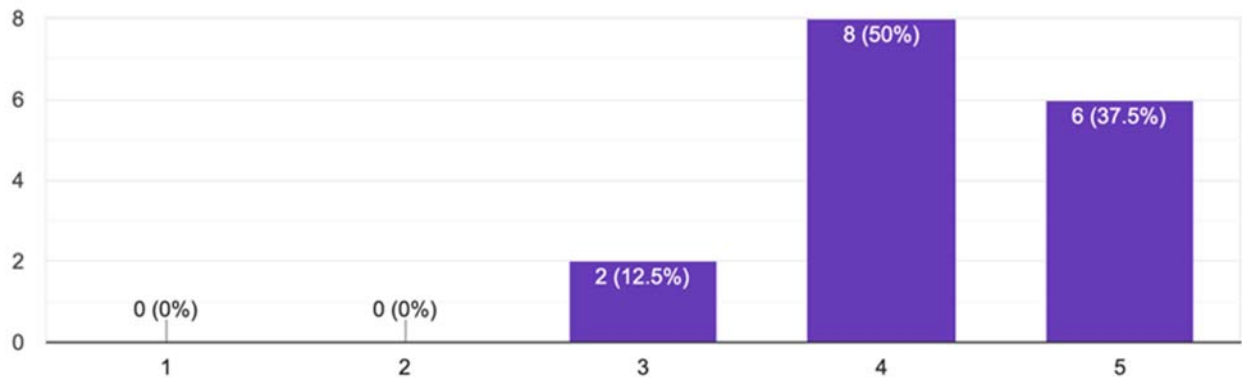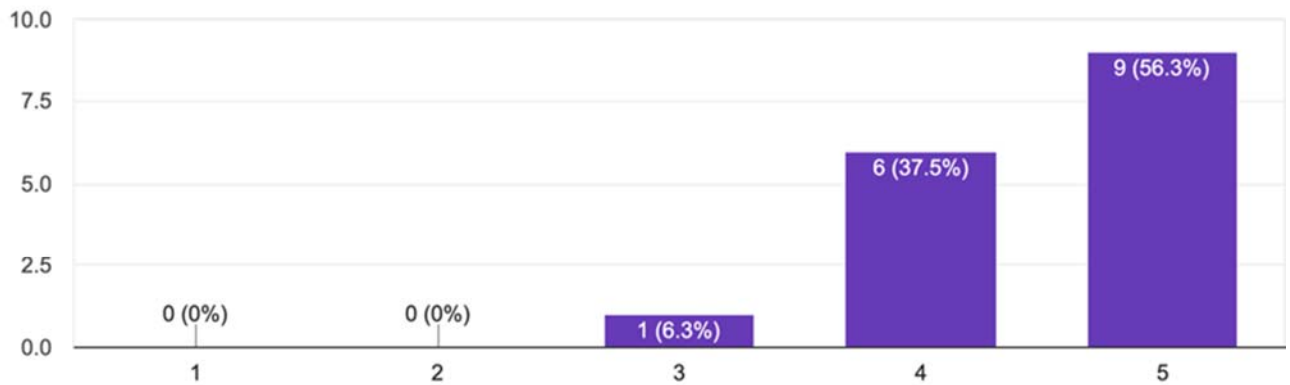
16 responses

Figure 40: Survey results on whether users would recommend FluffyHome

4.4 Conclusion from Lab Study:

All of the claims mentioned above were supported by the result of the Lab Study.

1. Do the users agree with FluffyHome that can help them to save more money on pet-sitting service after using FluffyHome and another online pet-sitting website?

2. Do the users figure out how to use the system by themselves following simple objects?

3. Will the users recommend FluffyHome to other people who have pet-sitting needs after trying out the system?

According to Figure 39, 62.5% of the testers strongly agree and 31.3% of the testers agree that FluffyHome can help them save more money than Rover.com, which is the most commonly use the pet-sitting website.

Also, these results show that the usability of FluffyHome is good. All of the testers can figure out how to use all of the function FluffyHome have within 15 minutes. And according to Figure 40, 87.5% of the testers think FluffyHome is very easy to use, 12.5% of them neither agree nor disagree with that.

According to Figure 41, 15 out of 16 people (93%) think they will recommend FluffyHome to their friends who have pet-sitting needs. Which means, most people would love to tell other people about FluffyHome after trying out. That means FluffyHome has great potential to be popular in the pet-sitting market.

In conclusion, all three claims are confirmed by the result of the laboratory study.

5.   Conclusion

FluffyHome is an innovation in terms of using a credit system for a free peer-to-peer pet sitting community. By doing so, FluffyHome can let its user get free pet-sitting services by caring

for other users' pets, without spending money and without sacrificing the ability to fall back on professional paid pet-sitting services when necessary. Also, FluffyHome is convenient and easy to use. Instead of filling the information over and over again like using Rover.com, people using FluffyHome can simply create an order by filling the information once and then invite other users to take the order. FluffyHome also shows great potential in future growth, as most testers decided that they would recommend FluffyHome to their friends.

The lab study also shows some of the users' expectations of FluffyHome. Two of the users mentioned that it would be great to have some filter and sorting selection buttons in Market and Find a Sitter page. Also, a map plugin showing all the peer-to-peer users near the users' location could be very helpful. This could increase the efficiency of the users to find a proper sitter. Also, in the future, FluffyHome could include an upload-photos feature. For example, FluffyHome could allow the user to upload the photo of themselves, their pets and their living environment. Also, FluffyHome could provide chatting feature that allows the creator and acceptor of the same order to share pictures and videos. In conclusion, although FluffyHome is still a prototype and still needs some improvement, it shows some great advantages that the current pet-sitting website doesn't have. It has proven to be an application where people can find a pet-sitter cheap and convenient. With some improvement and time, FluffyHome can become an important tool for people to find pet-sitting.

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