



# Project Overview Document

IAT334 Interface Design - D103 Fall08

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# Profile of the Design Team

## Names and roles:

Darian Grant –	Project Lead
Jessie Hsieh –	Graphic Design
Stephanie Law –	Analyst/Marketing
Judy Lin --	Concept Design

## Skills

In a team of four, three of us are considered to be designers; the other one is the project lead. These dynamics do not allow for a project with a lot of heavy programming and so we are using our given skills to create a project that will be heavy on the front end. On top of our powerful design skills, and education with the latest software programs, each one of us has something unique to offer to the group. Judy is proficient in Powerpoint and InDesign, Stephanie has conducted many user surveys and interviews, Jessie has a lot of experience storyboarding scenarios, and Darian has professional experience filming short films and videos. Combine all of that with the fact that we are all very artistic in mind and can come up with great ideas on the spot, and you have a very strong team that is confident with the project that lies ahead.

## Our Team Goals:

Our goal for this project is to combine our skills effectively and efficiently to create a project that can help make a difference in the world this lifetime. We have decided to tackle the sustainable environment category because that is the subject our team is the most passionate about. This semester, we want to create a project that will educate our users in a fun and creative way, and we will settle for nothing less than a perfect evaluation from our professors and in the design tournament.

# Design Brief

## Project Goals:

*“Diverting waste is the ultimate act of sustainability”*

– Caroline Savery, 2008

This quote is the very essence of what is driving our team for this project. We are going to make a website that teaches our audience to recycle their no longer wanted items by turning them into something they may keep or give to someone as a gift. This way, not only are they recycling the item, they are turning that item into something completely different, giving it a new purpose in a creative and stylish fashion. Due to our extensive experience in design, we are confident that we will be able to create a fun and educational website that will turn recycling into a fun hobby for the average person, and be fully accessible from your computer or mobile device.

Let's say our user has a clock that no longer works, they can go to our website and find detailed instructions (or recipes as we call them) on how to turn their old clock into a stylish picture frame. Not only will users take information and ideas from our website, they will also be able to post it. Our website will have a way for users to post their own ideas, upload before and after pictures of their creations, and write out the steps to reproduce it so other users can try it out (Refer to our Interface Sketches for a better idea). This website will also offer how-to videos, and links to recycling depots and proper recycling techniques. We want to provide the user with quick and easy navigation around our website so they can easily find what they are looking for, and present it in a way that stimulates their mind and eye to keep surfing through all of our links. With a website like this, there are no limits to what could happen in the future. We can easily picture users using our website to sell their recycled items for a profit, or perhaps trading them with other users.

With this website, our main goal is to help educate our users on recycling while at the same time open their minds to a different way of environmental sustainability.

In short, we want to do our part for a sustainable environment.

# Design Brief

## User's Goals/Motivations:

As mentioned earlier, our goal is to help develop a sustainable environment and the end user's goal will be the same, even if they are not aware of it. The goals of our end user is to transform something old, that might not work, into something new, different, fun, and possibly functional. In doing this, they are going to be recycling their item, which can be considered as doing their part for the environment. Some users will use this revelation as their motivation to continue to use our website and recycle through it.

## Target Audience

### Who are we designing for?

Our target audience will be focused on adults, parents and mainly students because we found that these are the people that have their own places with their own belongings, many of which are second hand and in need of a restoration. Because our range for our target audience is so wide, we are expecting our users to have a novice to intermediate level of experience with computers. Many users find certain websites hard to navigate around at first, but our goal is to make an easy and intuitive interface to avoid any confusion for our entire range of target users.

### Our target audience demographics (statistics of population):

Our focus in demography for this project will be based upon the North American population, as there are a large number of people who use computers in their daily lifestyle. The age demography we are expecting are from ages 15 to 35, as students entering university would not have much income to buy new furniture when they move into dorms, and adults who are in their 20s and 30s would also be interested because it would allow them keep the items they have at home. The North American population would also be a great start for this project as there is a high rate of mobile users in this age group. Since the website is focusing on environmental sustainability, both men and women are able to equally participate and contribute to the website.

### Our target audience psychographics (statistics of attitudes and personalities):

The psychographic values that we are looking at in our target users would be people who recycle in their daily life, but want to contribute more and do not know where to start. People who normally spend time surfing on the Internet could also be of interest as this site could fuel their creativity in an eco-friendly way and inspire them to collect their recycled products and make something new with it. People who are already doing their best to reduce the environmental footprint we are leaving behind would be highly interested in this site as it allows them to find another way to keep the environment more green.

# Timeline

Here is our proposed timeline for our project:

- Team selection & contract.
- Week 1/ Sept 2 – 6
- Introduction to the Imagine Cup Challenge
  - Select a category & topic
  - Learn Task Analysis
  - Learn hierarchy of a Graphical User Interface System
- Week 2/ Sept 7 - 13
- Week 3/ Sept 14 – 20
- Analyze interface requirements
  - Selected Sustainable environment category for entry into Imagine Cup
  - Provide a Project Brief
  - Mission statement: To reduce the landfill by encouraging the act of recycling
- Week 4/ Sept 21 - 27
- Research precedents/ case studies
  - Conduct task analysis
  - Develop user profile, wireframe, timeline.
- Week 5/ Sept 28– Oct 4
- First project proposal
  - Submit design brief, task analysis, wireframes.
  - Create testing measures
- Week 6/ Oct 5 – 11
- Create a usability test.
  - Found testing location and participants
  - Choose a model for observing the results
  - Interviews and observation of target user group.
- Week 7/Oct 12 - 18
- Usability testing
  - Finalize second prototype
- Week8/Oct 19 - 25
- Usability evaluation
  - Project two presentation
- Week9/ Oct 26 – Nov 1
- Observe the domains of visual interface design
  - Submit second report: design challenge, prototype, methods, participants, tasks, procedure, test measures,summary
- Week 10/ Nov 2 – 8
- Create HTML prototype
  - Project programming
  - Material slide presentation
- Week11/Nov 19 - 15
- Creating a style guide
  - Document process
- Week 12/ Nov 16 - 22
- Prototype final testing
  - Test limitations in implementation
- Week 13/ Nov 23 - 29
- Project 3 (final) presentation
  - Submit final prototype in internet form with a README text document
- Week 14/ Nov 30 – Dec 5
- Final project evaluation
  - Peer evaluation
  - Individual reflection

# Task Analysis

## Task 1: Finding out what to do with an old item

### Goal/Output:

Use our website and find a recipe to turn an old, non-functioning computer tower into a crazy plant-holder.

### Inputs:

- A computer with internet access
- Basic computer and internet skills
- Research skills

### Assumptions:

- Have all the arts and crafts utensil you would need
- Have an old computer that you want to recycle into something else
- The website exists and you know about the website.

### Steps:

- 1.0 Go to our website
  - 1.1 Open the browser
  - 1.2 Type in the URL
  - 1.3 Press enter and wait for page to load
- 2.0 Search for recipe
  - 2.1 Type in "computer" or "computer tower" keyword in search bar
  - 2.2 Hits enter and wait for the page to load
  - 2.3 Look through the list of search result and brief description
  - 2.4 Click on the title of the one that is appealing, "Crazy plant pot from a computer tower"

### Time estimated for expert:

15 min (For searching)

### Instructions for user:

To search for recipes, user can either go through different categories to find their item or just simply use our search feature, type in their item and see recipes that way.

### Notes:

Categories on website can be categorized as "Furniture, decoration, Kitchen items..." and also categorized as materials

# Task Analysis

## Task 2: Posting a recipe on our website

### Goal/Output:

The goal is to create a recipe to reuse an item and post it on the website. Once they see their recipe available for others to see on the website, they will know their task is completed.

### Inputs:

- A computer with internet access
- A recipe (text, images, and/or video files) ready to upload
- Basic computer and internet skills

### Assumptions:

This task is assuming that the user has already created something new with their old product and has a recipe created to share with users online. This is also assuming that the user has taken images or created a video of their process in order to teach others how to make the same thing on the website.

### Steps:

- 1.0 Go to our website
  - 1.1 Open the browser
  - 1.2 Type in the URL
  - 1.3 Press enter and wait for page to load
- 2.0 Post a Recipe
  - 2.1 Click on the navigation bar
  - 2.2 Fill out the recipe title box
  - 2.3 Fill out the materials list box
  - 2.4 Fill out the description box
- 3.0 Upload Pictures and Videos
  - 3.1 Click on the browse button
  - 3.2 Search for files on computer to upload
  - 3.3 Click on the files
- 4.0 Submit the Recipe

### Time estimated for expert:

5mins

### Instructions for user:

Use the recycling website to post an online recipe on how to turn an old item into something new and usable.

### Notes:

For testing purposes or for template use:

User's image file name: before\_clock.jpg, after\_photoframe.jpg

User's video file name: clock\_to\_frame.wmv

# Task Analysis

## Task 3: Locating a Recycling Depot near you.

### Goal/Output:

Find the nearest recycling depot through our website links. They will know when the task is complete because the closest recycling depot will be displayed on their screen.

### Inputs:

- A computer with internet access
- Knowledge of your surrounding area
- Basic computer and internet skills

### Assumptions:

Assume that you have just used our website to change an old clock into stylish picture frame. You are now left with all the metal innards of the clock. Assume that you would rather take the time to recycle these innards instead of throwing them out, and assume that you do not know where the nearest recycling depots are.

### Steps:

- 1.0 Go to our website
  - 1.1 Open the browser
  - 1.2 Type in the URL
  - 1.3 Press enter and wait for page to load
- 2.0 Find recycling depot
  - 2.1 Click on the "find a recycling depot" link
  - 2.2 Enter country
  - 2.3 Enter city
  - 2.4 Check box of material being recycled
  - 2.5 Click on "submit" button

### Time estimated for expert:

10 seconds

### Instructions for user:

Use our website to find the nearest recycling depot near your house so you can recycle some metal scraps there.

### Notes:

The user's address will be 123 Fake Street, Vancouver, BC, V7A 1B2



# Interviews

## Interview Subjects:

For our research, we interviewed 3 people over two sessions. All three were students that live on their own, between the ages of 20 and 23, and have a low financial income. We thought that these subjects would be perfect because they are all open minded to the idea of recycling, and are always looking for inexpensive, stylish furniture, since several pieces of the furniture in their homes has been purchased second hand. We asked each subject 11 questions concerning their knowledge on recycling and if there are any specific features they would like to see on a website like this.

What we learned:

The **five main issues** regarding our system that we discovered from these interviews were those of convenience, reward, time consumption, information distribution, and reusability.

The issue with **convenience** is that our interviewees find that there are not enough recycling sites or services, and they find it hard to find information about where and what to recycle. To solve this, one of our main site features will be a link to recycling depots in your area. The user will be able to easily search for recycling depots based on what it is that they want to recycle.

The issue with **reward** is that some of the interviewees feel like the end result of recycling is not obvious enough. They are putting all this hard work into creating one thing; it does not feel like they are recycling enough to make a difference. To help ease their minds, we are going to implement a section on our website that is dedicated to presenting facts to recyclers, and just how recycling a few things a year can make a difference.

One of the bigger issues we discovered from our interviews deals with **time consumption**. We found that not everyone is willing to spend that much time on transforming his or her unwanted goods into new ones. Also, not many people want to spend a lot of time researching what to do with their items as well. This will need to be remedied by holding user focus groups, but an early idea is that we can display the length of time it will take to complete each recycling recipe.

Another general concern our interviewees had was that some **websites display too much information** at once, and it is hard to sift through it all to find what you are looking for, they are worried ours will do the same. As we develop our website, we will be constantly asking users for feedback on the content they see and we are confident we will find a balance between user satisfaction and displayed content.

The last issue we discovered from our interviews was that of the **reusability of the items created**. What if the items created did not work properly? Would the user really invest the time into taking it all apart again and building a new one? Or take it apart to recycle each bit? The best way we can fix this problem is to be very detailed in our recipe instructions to ensure that there are no mistakes made by the user when creating it. For the complete, written interviews, see Appendix B.

# User scenario 1

One day Stephanie is cleaning out her room and finds a clock that she no longer wants. Instead of throwing it away, Stephanie goes online and finds our website, dedicated to recycling, refurbishing, and reusing items. She looks up what she can do with her clock and finds a great recipe to turn it into a picture frame posted by another user, Jessie. She follows the steps posted by Jessie and turns her clock into a picture frame. She posts her feedback and even uploads a picture of her new picture frame to show everybody else. She logs off and enjoys her picture frame.

## Wireframe

### Main Description

Our concept is based around the idea that people will reduce waste if they can find a way to reuse it. Our website provides people will fun and creative ways to change their trash into treasure. It informs them about the nearest recycling depots, and allows people to share their ideas with others by posting them to the site. The participation and feedback generated from our users will create a community that enjoys recycling and is fun to be a part of, which in turn, will gather more users to join in and try it out.

### User scenario 1 storyboard:

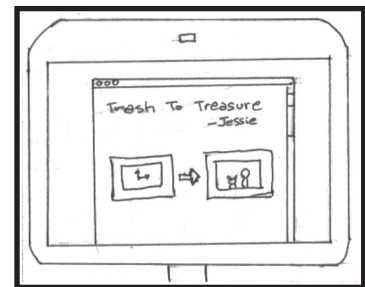
#### Sustainable Environment Scenario 1 - looking for recycling ideas



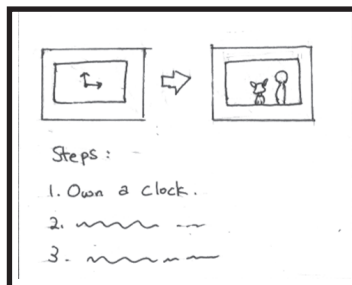
One day Stephanie is cleaning out her room and finds a clock that she no longer wants.



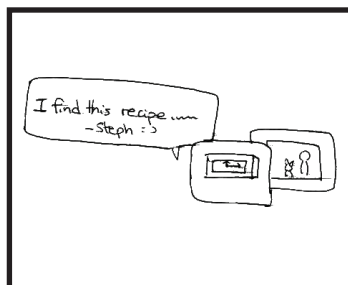
Instead of throwing it away, Stephanie goes online and finds our website, dedicated to recycling, refurbishing, and reusing items



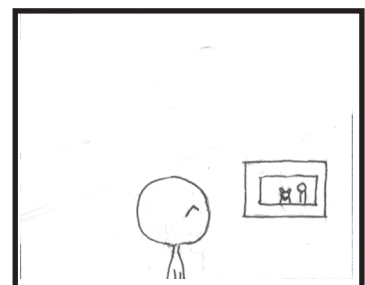
She looks up what she can do with her clock and finds a great recipe to turn it into a picture frame posted by another user, Jessie.



She follows the steps posted by Jessie and turns her clock into a picture frame.



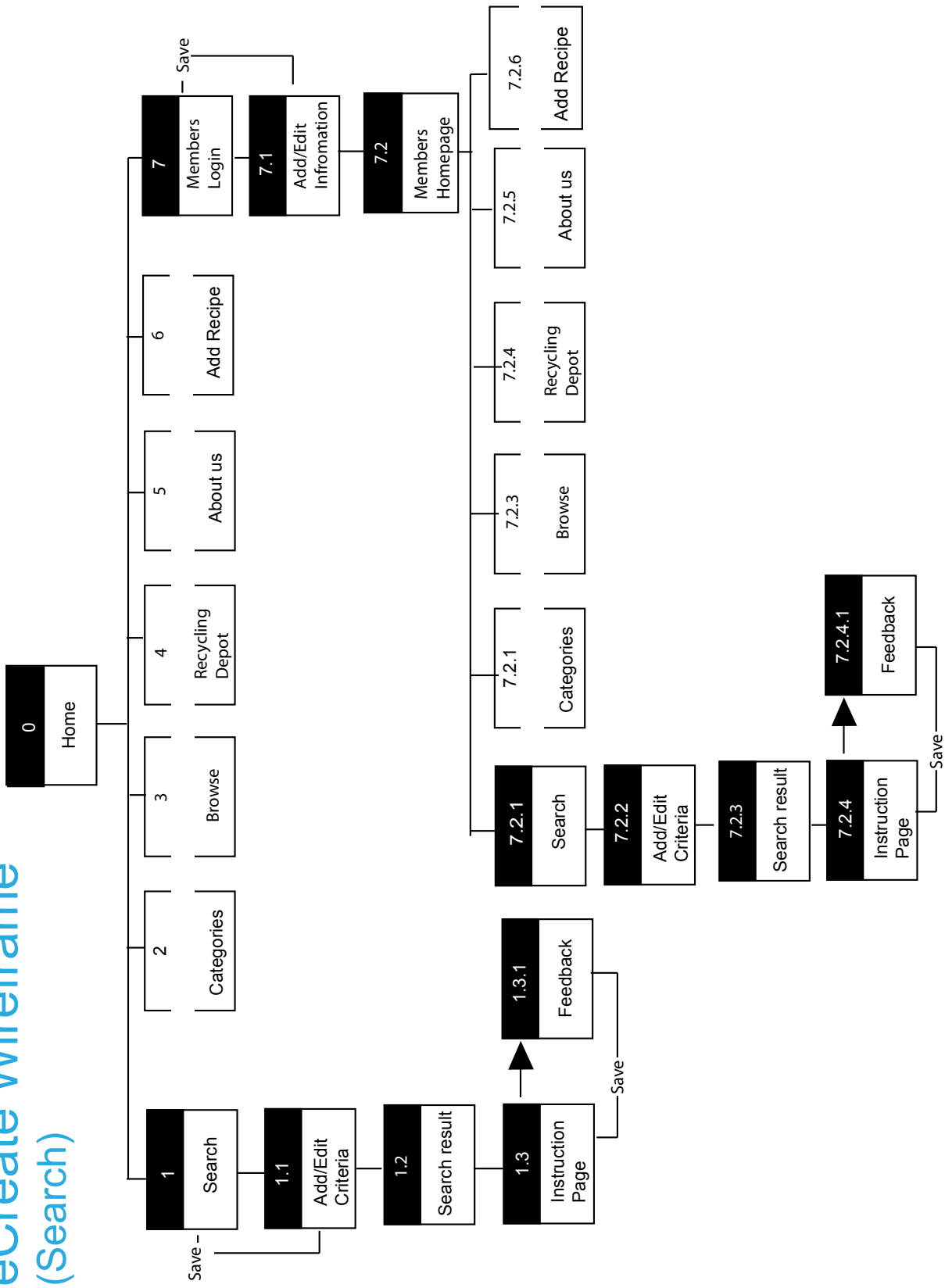
She posts her feedback and even uploads a picture of her new picture frame to show everybody else.



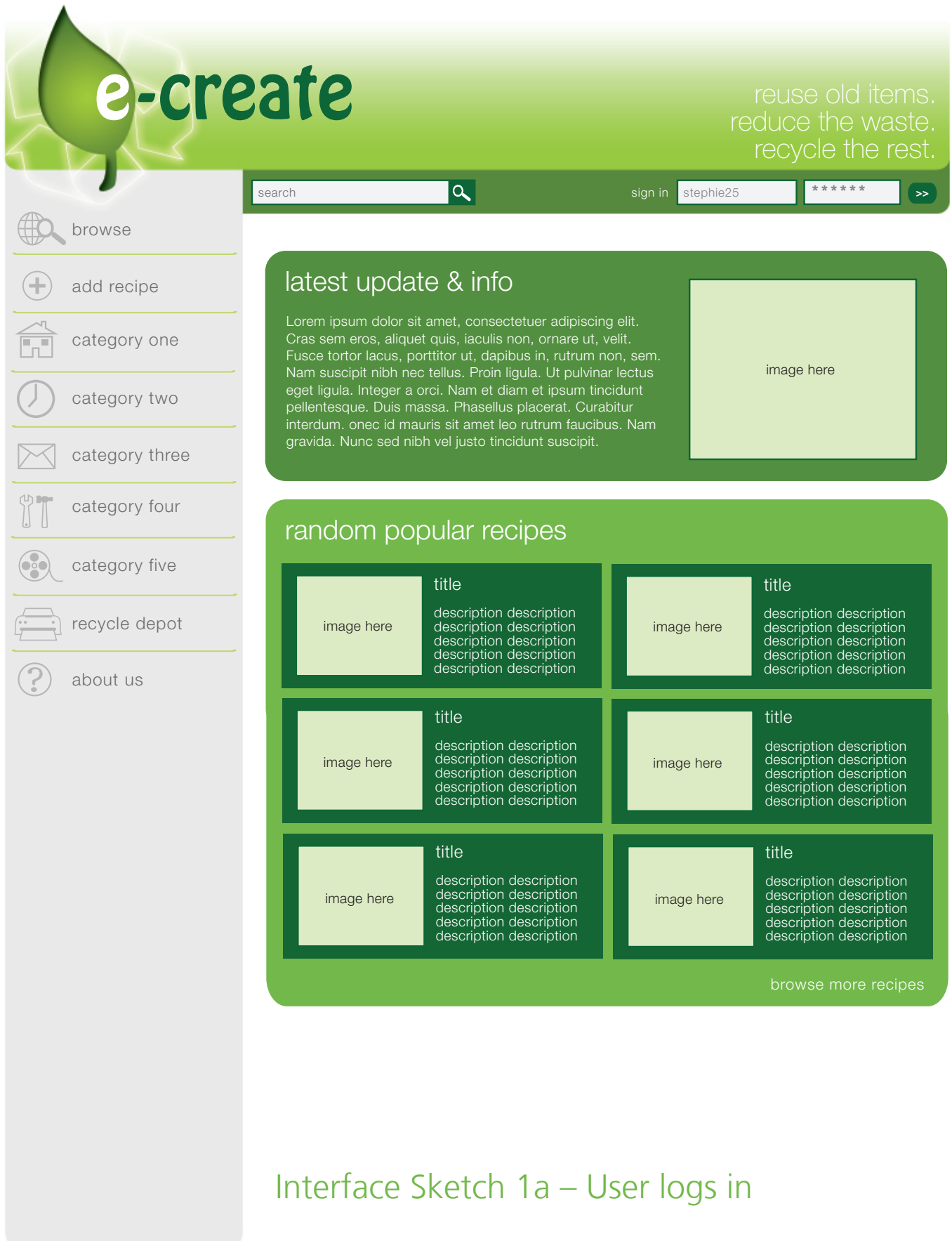
She logs off and enjoys her picture frame.

# User scenario 1 wireframe:

## eCreate Wireframe (Search)

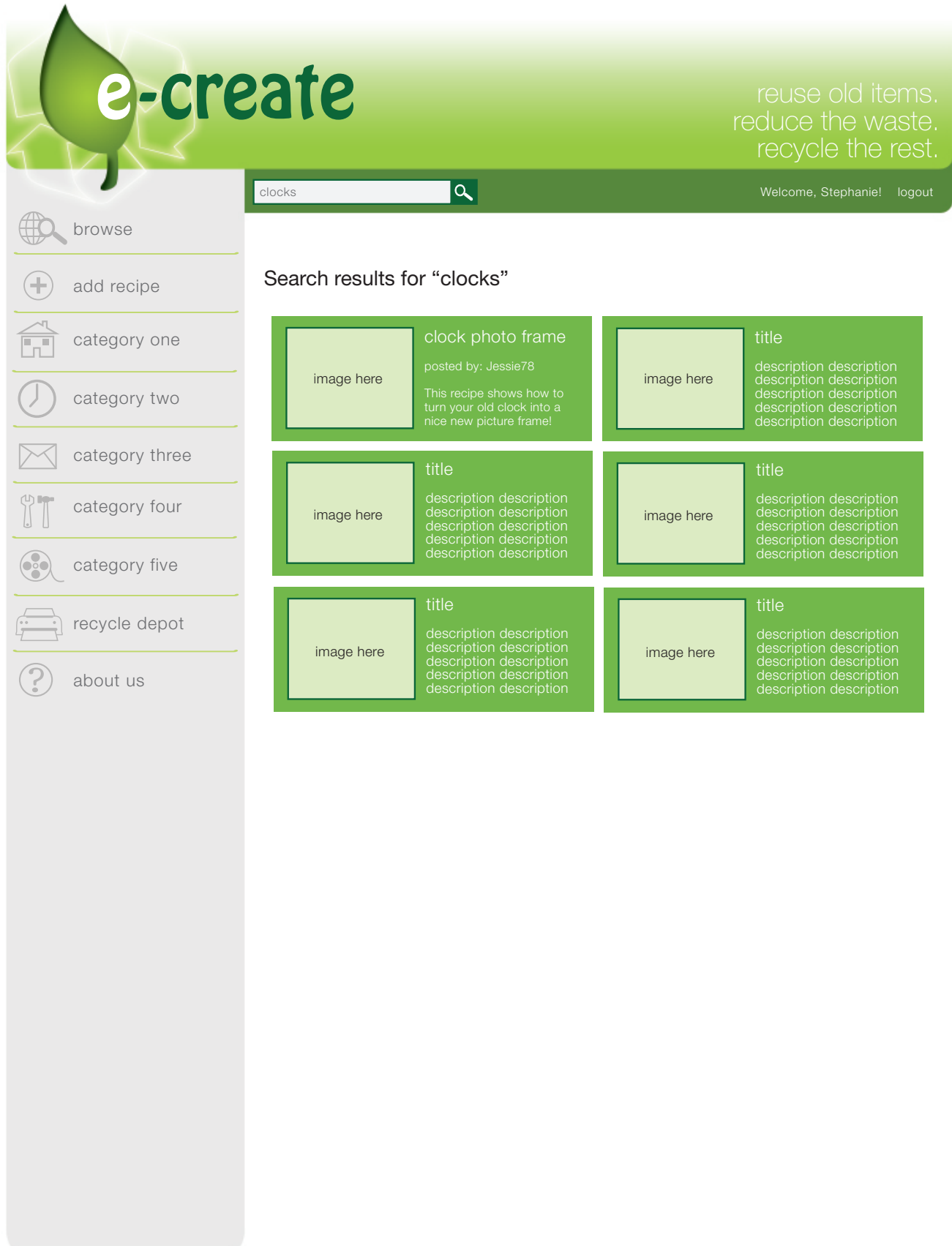


# User scenario 1 Interface Sketches:



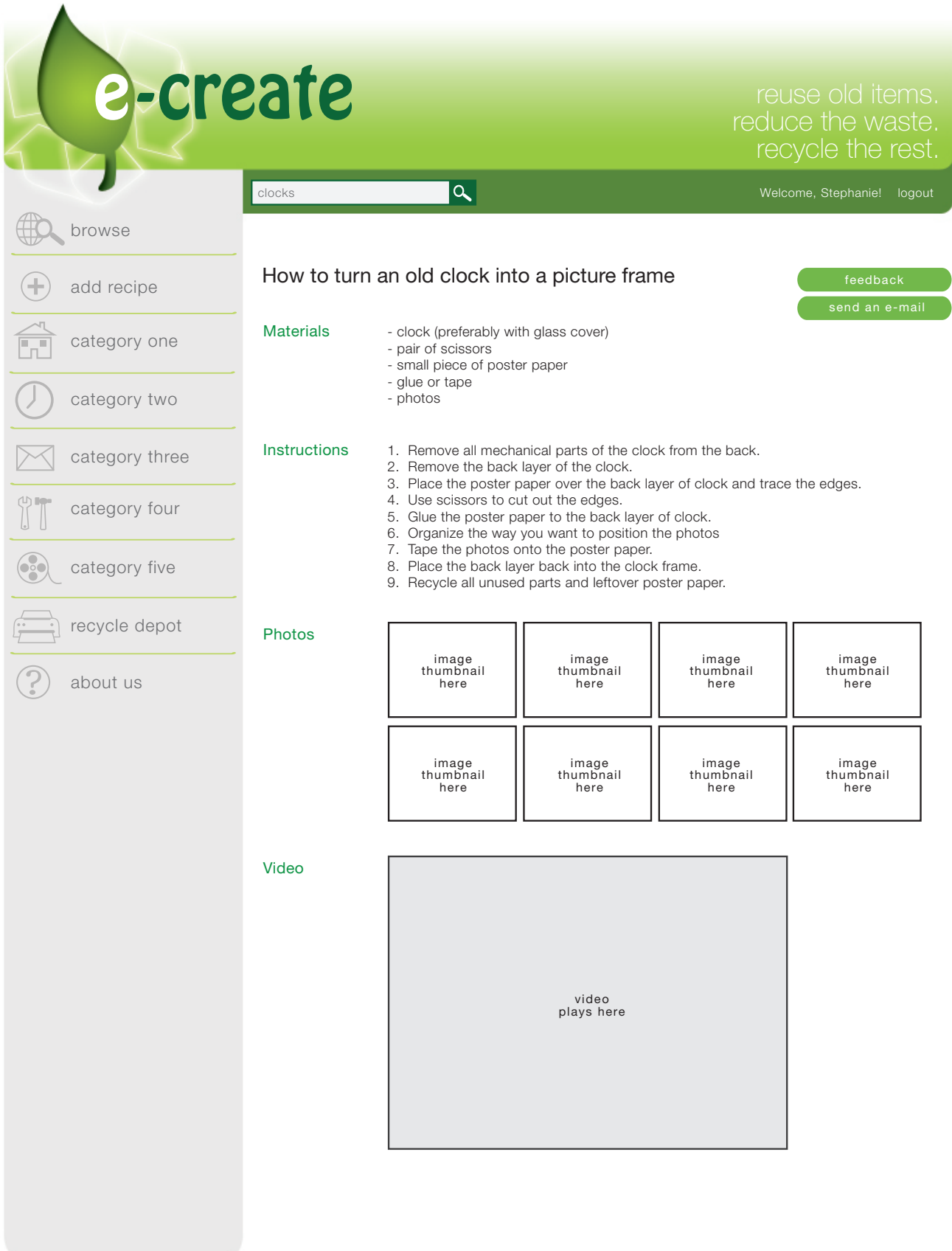
Interface Sketch 1a – User logs in

# User scenario 1 Interface Sketches:



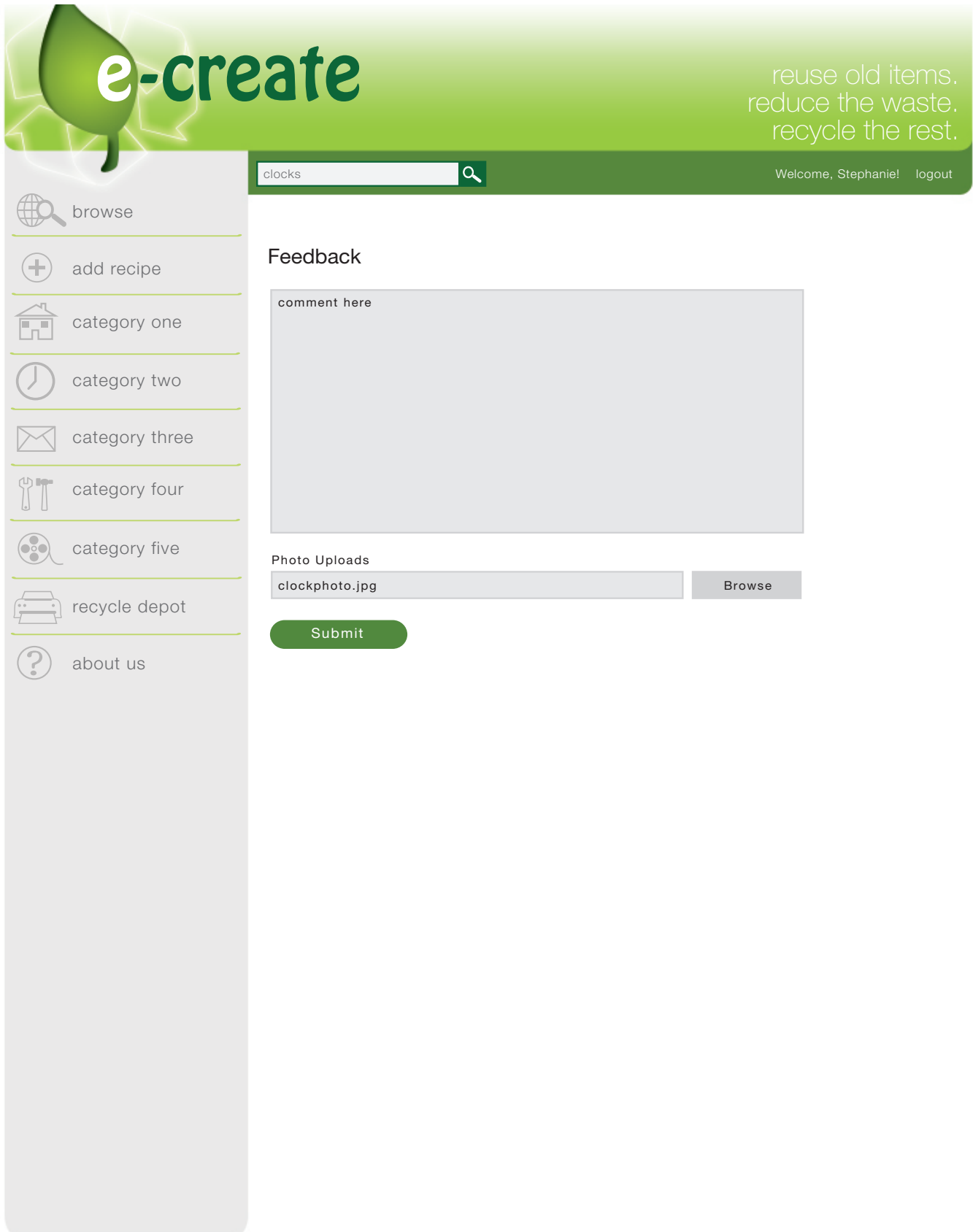
Interface Sketch 1c – User clicks on one of the search results

# User scenario 1 Interface Sketches:



Interface Sketch 1d – User reads and learns

# User scenario 1 Interface Sketches:



Interface Sketch 1e – User posts feedback

## User scenario 2

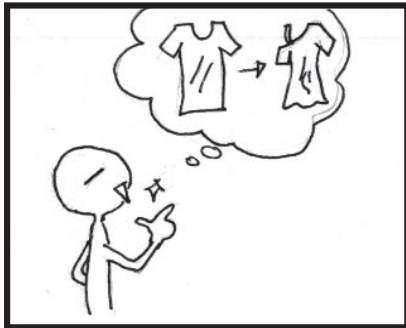
One day Stephanie had an idea for turning an old baggy t-shirt into a nice dress. She created this nice dress and wanted to share it with others. As an avid user, she went on to our website and posted her idea there to share with thousands of other users. Soon after, she received feedback on her idea and this motivated her to recycle something else this way. She continued to recycle by posting more recycling recipes on our website.

## User scenario 2 wireframe:

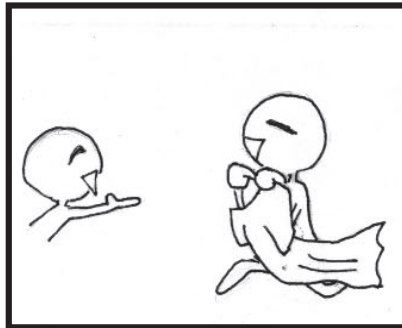
In our second scenario wireframe, the user follows the right path by logging in first, returning to the homepage, clicking on "add recipe", and then the user adds and edits their information before saving it.

## User scenario 2 storyboard:

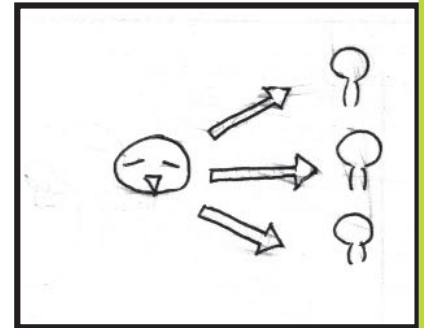
### Sustainable Environment Scenario 2 - posting a recycling recipe



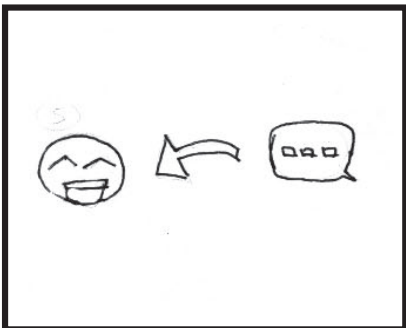
One day Stephanie had an idea for turning an old baggy t-shirt into a nice dress.



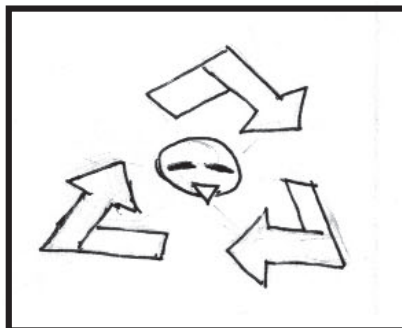
She created this nice dress and wanted to share it with others.



As an avid user, she went on to our website and posted her idea there to share with thousands of other users.



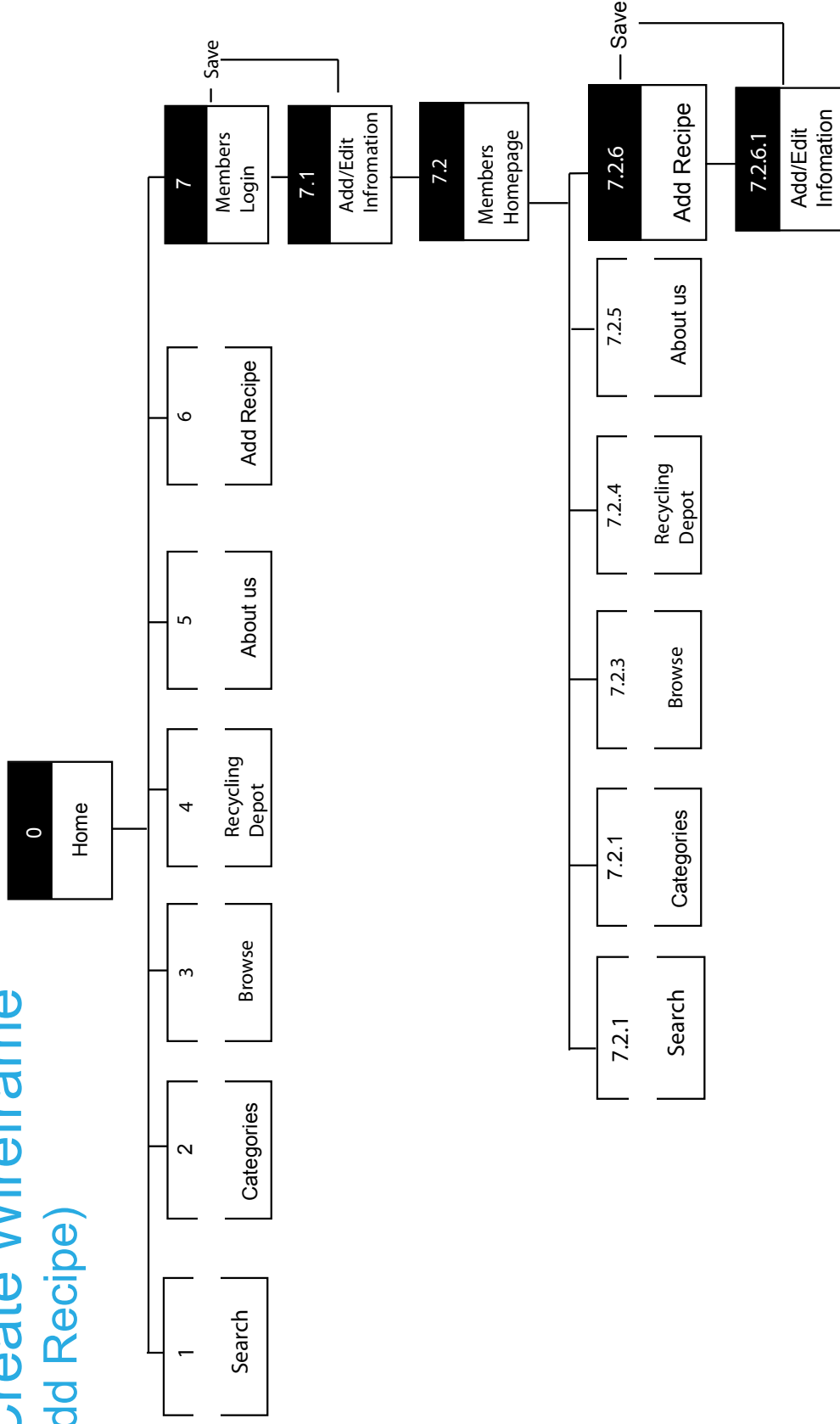
Soon after, she received feedback on her idea and this motivated her to recycle something else this way.



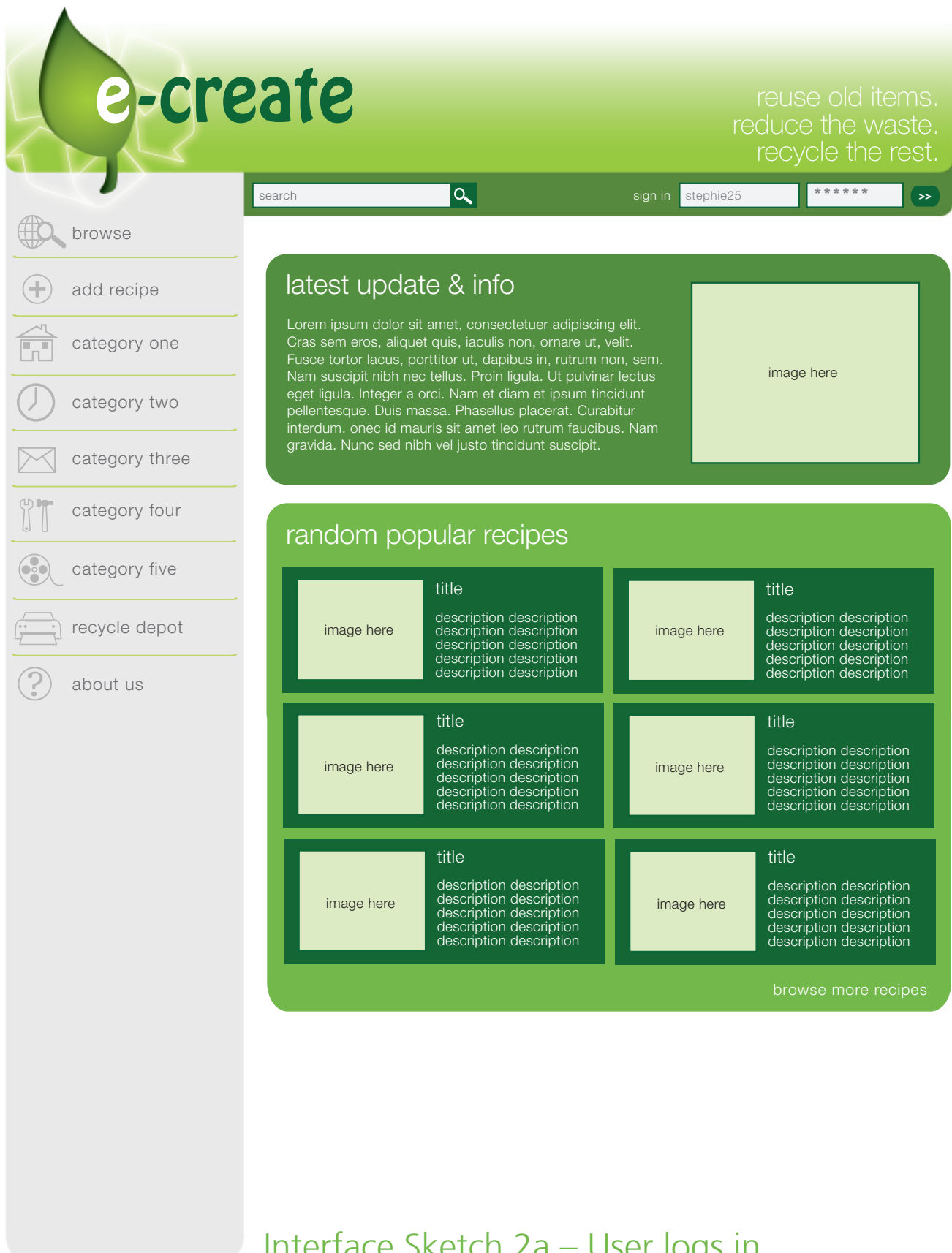
She continued to recycle by posting more recycling recipes on our website.

User scenario 2 wireframe:

## eCreate Wireframe (Add Recipe)




# User scenario 2 Interface Sketches:



Interface Sketch 2a – User logs in



## User scenario 2 Interface Sketches:



reuse old items.  
reduce the waste.  
recycle the rest.

search

Welcome, Stephanie! [logout](#)

- browse
- add recipe
- category one
- category two
- category three
- category four
- category five
- recycle depot
- about us

### Post your own recipe

**Title**

**Materials**

- baggy t-shirt
- marking pen
- pair of scissors
- thread
- threading needles
- fabric paint
- lace
- buttons

**Instructions**

1. Trace outline of dress from neckline.
2. Using scissors, cut out all excess parts of shirt following the outline.
3. Fold the top part of shirt and sew it together.
4. Sew two buttons onto shirt, one on each top corner of dress.
5. Sew the lace at back of dress on both left and right sides.
6. Tie the lace to the buttons at front.
7. Use fabric paint to draw some designs on the front bottom corner of dress.
8. Add extra buttons for decoration if desired.

**File Upload**

<input type="text" value="image1.jpg"/>	<input type="button" value="Browse"/>
<input type="text" value="image2.jpg"/>	<input type="button" value="Browse"/>
<input type="text" value="image3.jpg"/>	<input type="button" value="Browse"/>
<input type="text" value="image4.jpg"/>	<input type="button" value="Browse"/>
<input type="text" value="image5.jpg"/>	<input type="button" value="Browse"/>

Interface Sketch 2b – User posts a recipe

## User scenario 3

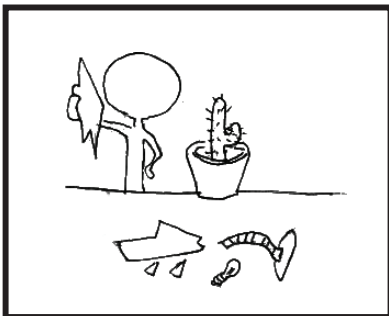
Stephanie has some metal scraps left over from a project she was working on from our website. She turned an old lamp into a plant holder. She knows that she can look up a recycling depot near her through our website so she logs on. She then clicks on the "find a recycling depot" link and locates a place to recycle the metal scraps. She brings her recycling to the depot and drives home to enjoy her new plant holder.

## User scenario 3 wireframe:

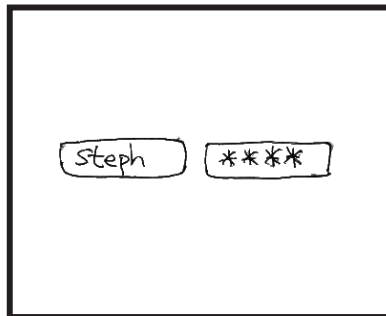
For the third scenario wireframe, the user can directly click on the "Recycling Depot" link to find one near them, or they can log in first. After logging in, they can look for a recycling depot and input their personal information to help narrow down their search.

## User scenario 3 storyboard:

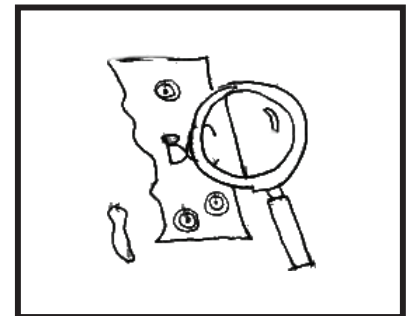
### Sustainable Environment Scenario 3 - finding a recycling depot



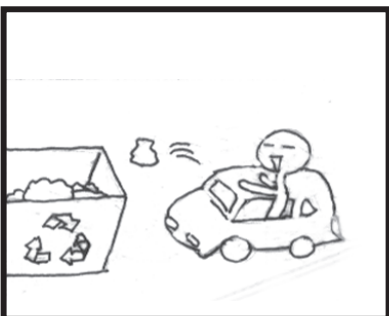
Stephanie has some metal scraps left over from a project she was working on from our website. She turned an old lamp into a plant holder.



She knows that she can look up a recycling depot near her through our website so she logs on.



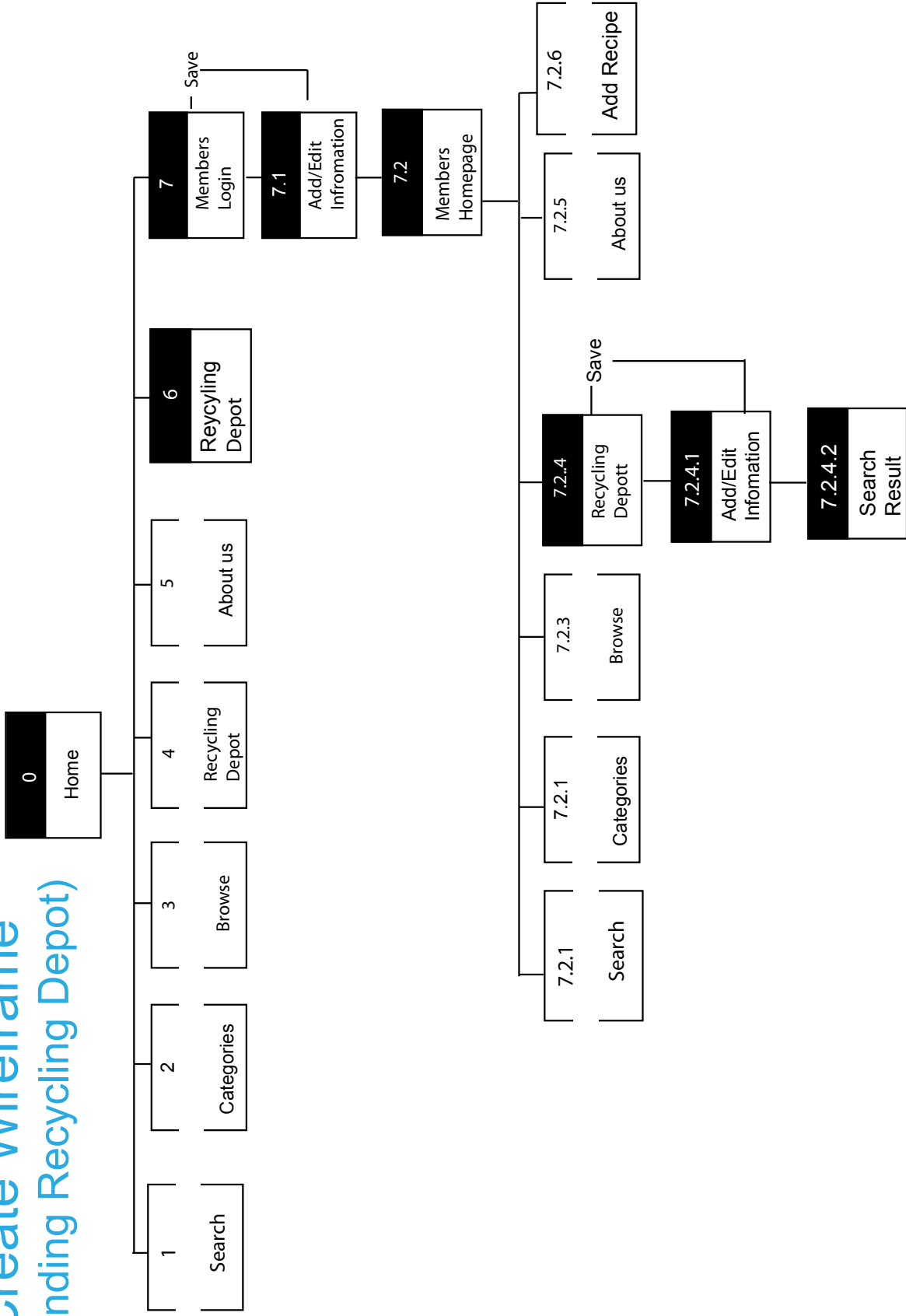
She then clicks on the "find a recycling depot" link and locates a place to recycle the metal scraps.



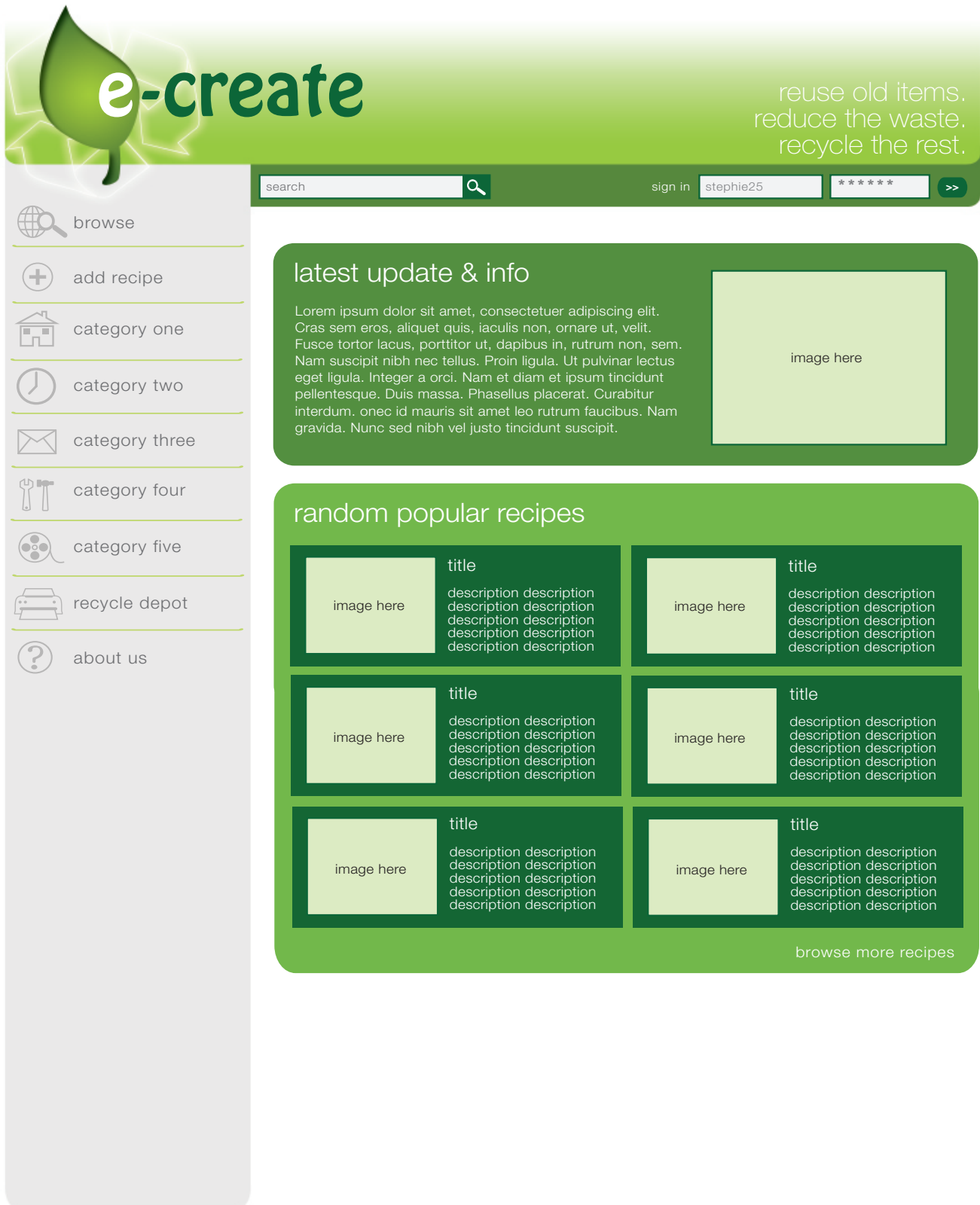
She brings her recycling to the depot and drives home to enjoy her new plant holder.

# User scenario 3 wireframe:

## eCreate Wireframe (Finding Recycling Depot)

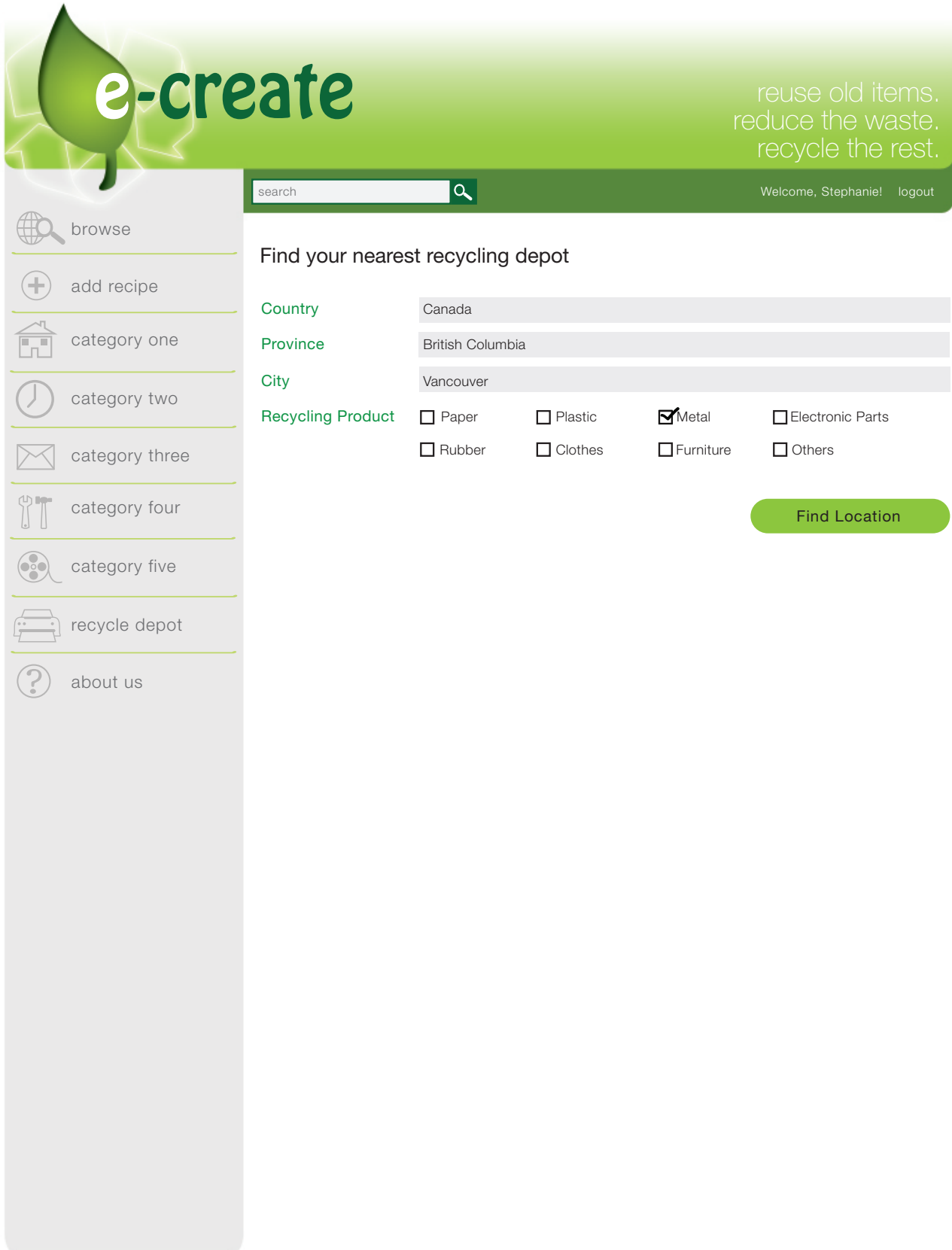


# User scenario 3 Interface Sketches:



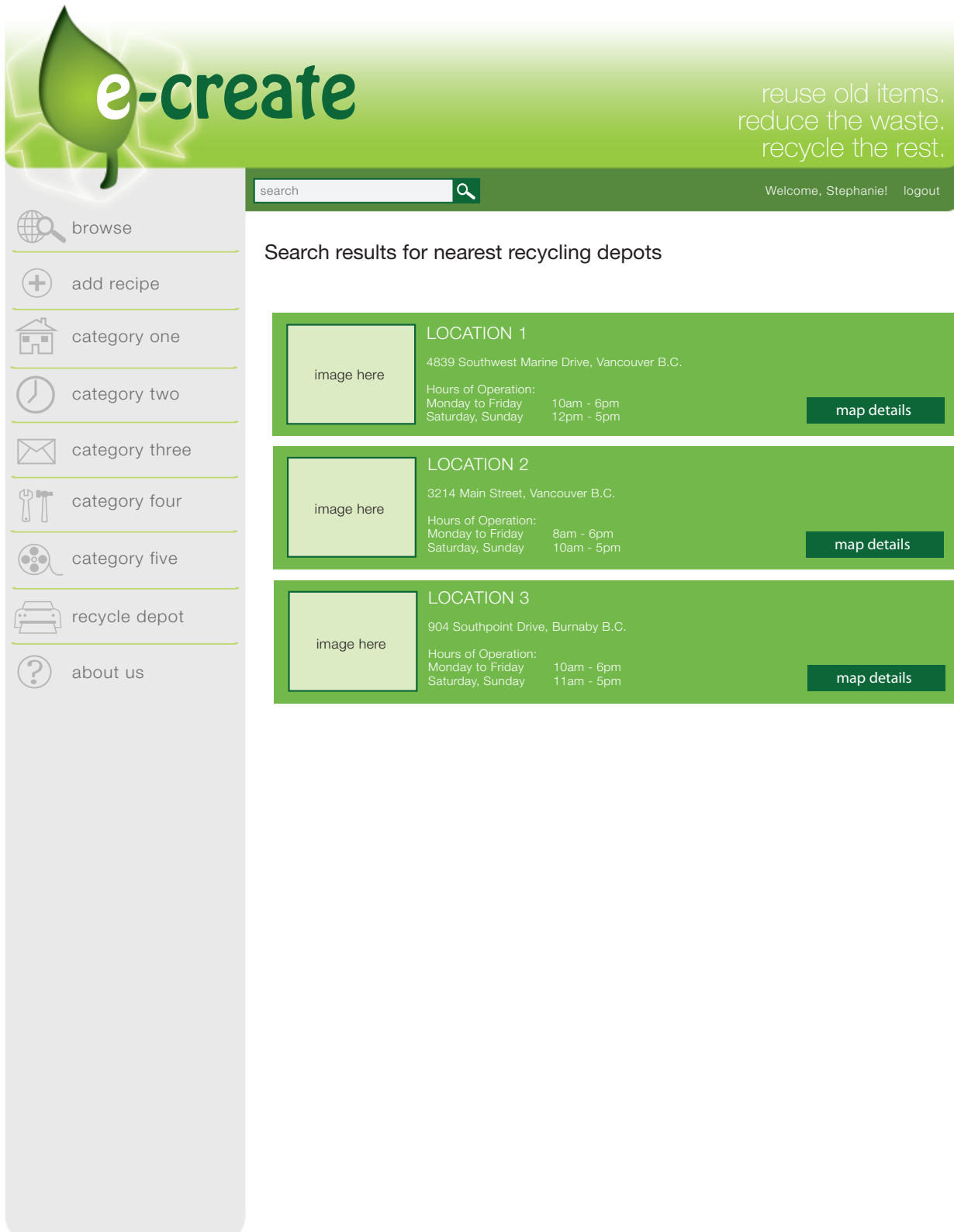
Interface Sketch 3a – User logs in

## User scenario 3 Interface Sketches:



Interface Sketch 3b – User searches for a recycling location

# User scenario 3 Interface Sketches:



Interface Sketch 3c – User is displayed with the results

# Appendix A

References:

Sustainablog: <http://sustainablog.org/2008/07/07/turning-trash-into-treasure-how-diverting-waste-is-the-ultimate-act-of-sustainability/>

# Appendix B

*Interview 1:*

Interviewee: Karen Poon & Gabi Chan

Age: 20 & 23

1. Composting, reusing, reducing, as well as choosing products in a more garbage-reduction way what kind of things do you recycle?

- a. Bottle, juice box, paper, card box, newspaper, glasses, cell phone, computer, battery, left over food, cans

2. How do you recycle? (Ex, just putting them to recycling bin each week or would you actually physically bring them to recycling site)

- a. Recycling bin, for computer and cell phone to recycling site, recycling depot

3. Why do you recycle? What are your main goal & motivation?

- a. Money, save Mr. Earth, recycle paper to save some tree, used to it, peer pressure

4. Do you have any ideas or heard of how to create things with recyclable items? (Please give example)

- a. Gabi - Chinese magazine – use tea bag to put into your shoes to keep out odor, use hanger to clean blinds (But I don't usually read it and do it)
- b. Anita – Folding used paper into little bowl or paper head to put bones in during dinner
- c. Reuse plastic bags...

5. What kind of things would you like to make? (Ex, more artistic things or more practical & useful Things), please give some example.

- a. Practical (preferable)
- b. Artistic things are usually just for artist.... They should teach kids how to do that!
- c. Unless we're actually contributing to an art work ( For example, there was once when the mall had an event go on in the mall, and whenever you contribute a recyclable can they put it in the work)

6. What kind of expectations would you have for this website? How would you find it easy to navigate? (How should we categorize things)
  - a. Need search engine
  - b. Where to recycle furniture (Big pieces of waste)
  - c. Maybe not just recycle, but maybe if it can be useful for other people who are less fortunate, have someone fixing it and donating it to someone else
  - d. [www.treehugger.com](http://www.treehugger.com) – recycle stuff and make arts
7. Have you spent some time thinking / researching about recycling before? How did you do that and why did you start? (What brings your attention to this topic)
  - a. School projects
  - b. It is really hard to find a place to dump your stuff! When the waste comes up
8. How can we attract or interest you to this topic? (Ex, contest, prize, posters, conventions)
  - a. Convention – Displaying work
  - b. Contest
  - c. Kind of like Yahoo knowledge – Cold knowledge
  - d. Web banner and ad
9. Other than a website is there another tool / medium that you would to use to explore further about this topic? (Ex, Blog, video, chat rooms...)
  - a. Blog is pretty good, video's good too, but should have standard and good quality
  - b. Skytrain ad
  - c. Publish in magazine, every week one section updates about recycling tips
10. What kind of organizations do you know as/ think is spokesmen for environment care (Recycling & Land fill).
  - a. Bottle depot, salvation army, our neighbor who does garage sale
11. Besides reusing recyclable objects, can you think of any other method that would contribute to reducing land fill?
  - a. Using something to replace something (Example reusable shopping bag)

## Interview 2:

Interviewee: Phiriyaphong Chaengchenwet

Age: 20

1. What kind of things do you recycle?

Paper, plastic bags, bottle cans

2. How do you recycle? (Ex, just putting them to recycling bin each week or would you actually physically bring them to recycling site)

Putting in recycling bin

3. Why do you recycle? What are your main goal & motivation?

The availability of the recycling bins, as well as the norms established via various means that promote recycling as a way to reduce carbon footprint.

4. Do you have any ideas or heard of how to create things with recyclable items? (Please give example)

Toilet papers from recycled newspaper, Blue recycling bins from discarded plastics, new bottles from recycled glass, etc.

5. What kind of things would you like to make? (Ex, more artistic things or more practical & useful things), please give some example.

A more practical item, normal – everyday utilities item, such as note papers, recycled plastics for various items, reused gray water.

6. What kind of expectations would you have for this website? How would you find it easy to navigate? (How should we categorize things)

A rather “Martha Stewart”-like website, where it offers tips on how recycling could be done, from all sorts of ways: Video, weekly articles, news about recycling technology and policies, etc.

7. Have you spent some time thinking / researching about recycling before? How did you do that and why did you start? (What brings your attention to this topic)

Never

8. How can we attract or interest you to this topic? (Ex, contest, prize, posters, conventions)

A contest – prize by visiting a recycling plant would be interesting, though.

9. Other than a website is there another tool / medium that you would use to explore further about this topic? (Ex, Blog, video, chat rooms...)

a. A website should be used as a platform whereas many other medium can be added to present variety of information regarding recycling.

10. What kind of organizations do you know as/ think is spokesmen for environment care (Recycling & Land fill).

Metro Vancouver. GreenPeace. Oxfam. Green Party. Waste Management Inc.

11. Besides reusing a recyclable object, can you think of any other method that would contribute to reducing land fill?

Composting, reusing, reducing, as well as choosing products in a more garbage-reduction way.