Sharing is caring

Technological Basics II SS 2024
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Introduction

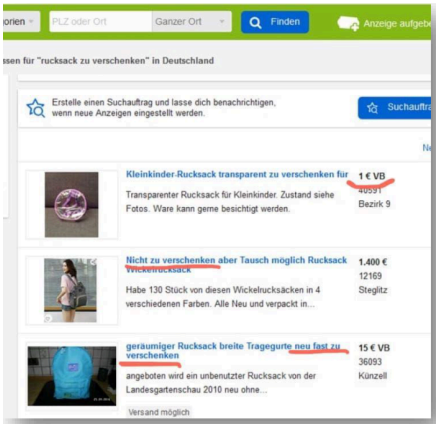
From the application name "Sharing is Caring," you can probably make a few assumptions about its purpose: Friendship? Service exchange? However, the most accurate explanation comes from Urban Dictionary: “When you have something (usually food) and your friend wants some, it is common to use this phrase.”

You’re eating pizza while a friend walks up. Them: Can I have some? You: No. Them: Sharing is caring! You: I don't care. (by Bob the Magic Taco, February 26, 2012)

Our app is made for people who actually care. It doesn’t matter what specifically you care about: sustainable living, the labour conditions of people manufacturing certain products, empathy, attention, responsibility for each other, minimising food waste, or perhaps all of these. Caring is not always something difficult or requires a lot of effort. It can occur in small actions and changes that make a significant difference.

Methodology

Many are familiar with how eBay Kleinanzeigen (“small advertisements”, also known as eBay Local) works: one lists a service or product for sale, usually secondhand. However, as our research shows, eBay is not initially designed for users who want to give items away for free.



Although the category “Verschenken” (“give away, donate, present”) exists, sellers often prefer to place their products in a more relevant category. Consequently, they face difficulties filling in fields that are not tailored for free items. People feel compelled to improvise by writing “for free” in the product name, setting the price to “0”, or leaving it blank.

Additionally, to get a list of available products, users must make a specific query. Many fail to give their items away due to this non-standardized procedure. Therefore, we can conclude that the eBay Kleinanzeigen platform is primarily profit-oriented and poorly adapted for non-paid purposes. Consequently, people do not often use it for these purposes.

What happens to these gratis items then? First, products might go into “Verschenken” boxes in front of houses, where they have a chance of finding a new owner but might also get soaked by rain and turn into junk. Unwanted items often end up stored in basements or attics for years until the next generation throws them away or repeats this cycle. The rest goes into the bin.

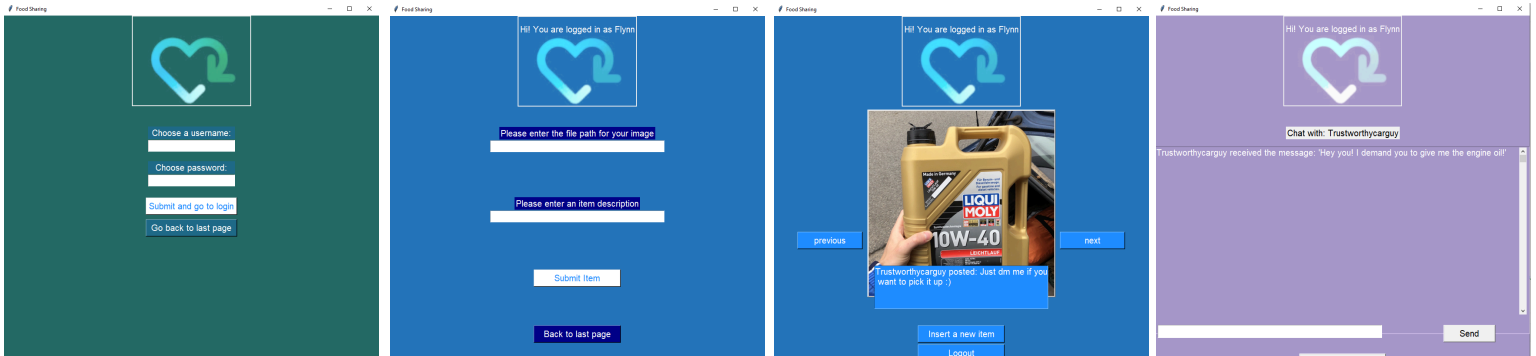
This doesn’t even cover edible products, which are often neglected and thrown away. This issue particularly concerns food distribution. Grocery products that are still marketable but do not meet high standards are often wasted. Although these products are perfectly edible, few grocery stores utilize existing food distribution chains. Due to complicated bureaucracy and the need for additional resources, supermarkets make little effort in this area. Rational and fair food distribution, instead of waste, is seen as not worth the associated costs.

People are beginning to reflect on these flaws in our unreasonable and poorly conceived behaviour. Nowadays, many charity organisations and initiatives address this issue, such as “Tafel” or “Fairteiler Schränke” (“distributary shelves” or “fair-sharing shelves”) located in Lüneburg and other cities for public use. These are used by some bakeries and numerous individuals to place food products. However, such initiatives lack the necessary organising points to gain wide popularity, such as accessibility, ease of use, and time efficiency. These points were precisely the goals for our application.

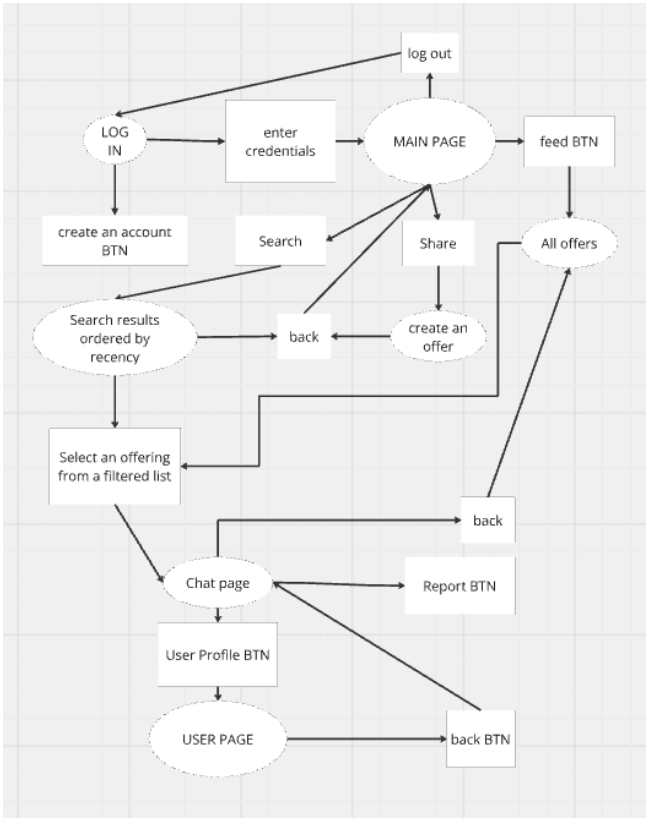
Design

We developed an application with multiple user use that tracks the user data, featuring a straightforward registration process. Once registered, users can add descriptions and pictures of items they want to give away. Users can also browse through the list of available offers. By clicking on an item’s picture, users are taken to a chat history, enabling direct and personal communication with the item owner, which facilitates quick and efficient interactions.

The entire app has a clear and intuitive design. We chose a simple yet appealing colour palette that matches the gradient of our logo. Inspired by the digital interfaces of the early 2000s, we designed



an easy-to-navigate interface that adheres to the best traditions of that era, evoking a sense of nostalgia.



Approach

We started out by orienting our programming on Sara Haq's Tech Basics II github repository. We took small bits from her code that we know worked for our app as well. And over time we adapted and changed them to fit our needs. At some point we became relatively sufficient in writing the code ourselves and started writing functions for every little thing we tried to achieve, instead of hard-coding everything multiple times.

Originally we considered creating a main page where users can choose different categories depending on which items they are looking for. We then abandoned this approach as it seemed insufficient to display the more recent and more available items, generating a desire in users to get what is there. Instead of having users seek something specific. That is why we reconsidered and decided to create a centralised mainpage that shows all posts and can be browsed freely. And at a later stage it is supposed to support searching and filtering the offerings.

Limitations

Our team has identified several limitations that need to be addressed.

In its current state, the app lacks advanced features such as scrollable feed feature, detailed search filtering based on keywords, category-based browsing, and robust interactivity in the chat function.

Regarding user interface and experience, the UI may not be as polished, potentially leading to a less satisfying user experience. Currently, the app does not have a location-based feature for the deployment in specific locations, that would simplify logistics for the users.

For further app development, our goals include introducing quick access to the camera, enabling users to take photos directly within the app. Additionally, we plan to implement personal user profiles to enhance personalization features.

Code References

Lines	Link	Description
80 - 82, 332 - 334	https://stackoverflow.com/questions/16476924/how-can-i-iterate-over-rows-in-a-pandas-dataframe	Using a for loop with the iterrows method to iteratively read out tuples from the dataframe and store them in a list.
295	https://www.askpython.com/python-modules/tkinter/stringvar-with-examples	Using the .set method to dynamically assign string to a static message without unwanted brackets showing in the GUI.
516 - 517	https://stackoverflow.com/questions/3685974/iterate-a-certain-number-of-times-without-storing-the-iteration-number-anywhere	Using the length of the list of tuples to determine an integer for the number of iterations needed to display all posts from the item_info.csv as a button.
524	https://stackoverflow.com/questions/6444548/how-do-i-get-the-picture-size-with-pil	Using the .size method of the pillow library to get the actual size of the image that is being read out by the function.
532 - 537	https://stackoverflow.com/questions/62502791/how-to-add-image-in-a-button	Create a button that is a clickable image.