Beta Evaluation

San Jose State University - School of Information

INFO 202

Introduction

Databases are a modern wonder that continue to shape our ability to seek and find information. It can be argued that their continued improvement is vital to the furthering of humanity, due to the increased need to quickly retrieve and share information (Ortiz-Ospina, 2023). Since the advent of computer processing and the internet, we have needed a way to organize and weed through increasing amounts of information. As technology develops and becomes ever more sophisticated, it is imperative that we initiate improvements with a watchful eye. Creating and testing data structures over the course of this semester has increased our knowledge and understanding of the nature of sharing and organizing information, and our group (Group 6) has reviewed Group 1's data structure below. This review aims to praise Group 1 for their marked effort and also suggest subtle changes.

Overview

After carefully examining the deliverables for the beta database for Group 1, our team would like to commend the members of this aforementioned group for their thoughtfulness in assuring that the database is user friendly, particularly for beginners. The structure had a wide range of options to choose from, such as whether the flora in question had the ability to produce flowers indoors or was merely foliage. Overall, this database did not miss any vital fields or have any major deficits. Further, it was relatively easy to expand the database with our entries using the submission form.

The indexing rules within the database documentation were perfectly clear and stated most or all of the things that were required in order to make a new submission. For example, for the color field, the group added "Other," and allowed users to select multiple colors

simultaneously. This is useful since plants come in a variety of colors and can often change color over time. For the level of difficulty, the group added three field selections. These terms are generally considered to be the preferred vocabulary overall, making it easy to tag and index.

The few points of improvement that we identified are easily resolved, and our team was delighted by the results of our user testing. We had a great deal of fun whilst choosing and adding plants, and this spawned an incredible discussion on the benefits of owning houseplants as a hobby in general. A database's purpose is to fulfill the user's information needs, which are often represented by the user in their queries (Tucker, n.d.). Therefore, we considered this spark of inspiration essential to discussing improvements for the site.

The target audience for their database is as follows: those showcasing plants as decoration, beginners owning a new plant that is easy to care for or considered low maintenance, and plant collectors and enthusiasts looking to add an exotic new item to their collection.

A question that designers often ask themselves is whether there is truly a need for their design (Weedman, 2019). Our group resoundingly agrees with the SOP outlined in this group's database, particularly their comments regarding the increased popularity of houseplants since the pandemic began. As more people have begun to spend time at home, there is a markedly increasing demand to make one's domicile aesthetically pleasing, and to have more hobbies in which to pass the time (Vimal, 2022). We believe this is proof of concept that yes, this is a database that people need and want to use.

Furthermore, the data structure is clearly the result of hard work and thoughtfulness on the part of the group members. We particularly appreciated the pet toxicity category, as many of us have cats or dogs. One of our members had even had previous struggles with their animal ingesting plant life that they weren't meant to have, not knowing it was toxic to their pet.

Owners may not know that there are many common household plants, from Poinsettias to shamrocks, that are poisonous to pets (Volmer, 2002). This outlines the conscientiousness that Group 1 has exhibited in the creation of their data structure and search features.

Challenges and Suggestions

We as Group 6 were not eager to criticize this project, as we were all impressed with the amount of effort and forethought that was put into the design of the initial database. That being said, we did find a few minor issues that prevented us from having the ideal experience in utilizing the database. They are as follows below:

Overall, we found that the database design was entirely appropriate for the target users and the proposed goal(s) of the database. Group 6 experienced a small snafu with selecting difficulty levels within Group 1's database upon launch, but this appears to have been fixed as of March 25th. This reflected the group's initiative in testing and updating their database.

A helpful suggestion that we would like to add, on that note, is that more advanced features and options can be easily added or expanded upon by consulting the help chat in Caspio, which kept popping up for the members of our team that were working on their own respective database. At one point Group 6 was able to contact Caspio directly, in order to connect with individuals from the company, who were able to provide tips for more advanced features and to assist in fixing any errors. Our group highly recommends this feature in the future improvement of this database as well (Support and Help, n.d.).

Our group also discussed the challenge in searching by color alone for plant life, as the flowers and foliage colors can be vastly different. We agreed that an option to separate by foliage color versus flower color would be ideal. The added category of hardiness zones would improve

the likelihood of a user adopting a plant, as this also allows the opportunity for an individual to put the plant outdoors, or bring an existing outdoor plant inside, once purchased.

As certain types of plants are more widely available in local nurseries than others, there may be a lack of familiarity with other plants available. Due to an item not being available in a user's geographic area, the user may become confused, and feel limited on what they are able to search for. We helpfully suggest the potentiality of expanded options, such as a "hardiness zone" feature, as many indoor plants still rely on cues from their local environment in order to thrive (Pennisi, n.d.). These plants may require additional supplies, such as a grow light, or to be fertilized within a particular season.

For example, those living in Southern California experience different weather conditions based on the climate of their hardiness zone, even within the same county or region. While most of Southern California, for example, is generally located in Zone 10, the specific microclimates along the coast and further inland can range from Zone 8 to Zone 11 (*USDA Plant Hardiness Zone Map*, n.d.). We have provided links below to the web pages that offer this information, and would love to see these resources be utilized in order to further improve the database structure and vocabulary.

We also felt that it was problematic that there was no "yes or no" option for flowers, as some plants do not produce flowers at all, regardless of whether they are indoors or not, or the status of this flower may be more complicated. For example, there are some plants that do not flower, nor do they produce fruit for many years after purchase. Another potential category can be added, since avocados and other fruiting trees can be houseplants. We also felt that the "flowers indoors" category for this reason was a bit confusing. This section may need clarification which can be solved with using an alternative field name like "Produces Flowers

Indoors?" or something similarly-worded. One member also found the "max width" plant category confusing, as plants come in different sizes for sale, in addition to having an average max growth size. This may be a category that Group 1 would care to expand into two (max potential growth versus purchased size). Much like having a pet that grows larger with age, many plants become much larger if treated with care, and the max size at time of purchase may not reflect the max size for the life of the plant. In regards to the database selections available for sunlight requirements, the field index might be expanded or split to accommodate direct and indirect light separately, with all three levels of light within each of these categories, thus creating the ability to search for "low indirect light" or "high direct light".

Furthermore, it has occurred to our group that, while this project was strictly related to the usability of the database alone, an adjoining message board for plant lovers to discuss their plants and offer troubleshooting suggestions for plant care would be ideal. This forum could also contain categories with built-in suggestions for what to search for in the database. Through the use of active tagging, the system can suggest other relevant tags to support the user's information search. This would allow users to use dynamic tags in order to identify things about the plants that they like that are not located on the search feature (Ruotsalo et al., 2022).

Some other additional satellite features might include what type of potting soil that the indoor plants would need, as certain plants do not thrive in the wrong soil. There could also potentially be a category or check box for those hardier plants that are difficult to damage, for those that feel as though they do not have a green thumb, or have otherwise had negative experiences in the past. Finally, there could potentially be a check box for "grow light recommended" for those that live in apartments with little to no natural light and would like a

light-loving plant. Finally, we would suggest minor clarification by adding an option for "Not Specified" to the toxicity indexing rules.

Conclusion

Ultimately, these suggestions are all the opinion of Group 6, as none of these changes is strictly necessary in order for the database to be successful. We as users would be pleased to purchase additional items using this database if we were given some expanded features and options, but would still be doing plenty of browsing nonetheless. The indexing and other instructions for the site were clear, and allowed us to search and add items with little to no technical issue. It was a pleasure to be able to test this group's site, and we hope to see more of their fine work as the course progresses.

References

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Helpful Links and Tips:

Growing Indoor Plants with Success

USDA Plant Hardiness Zone Map