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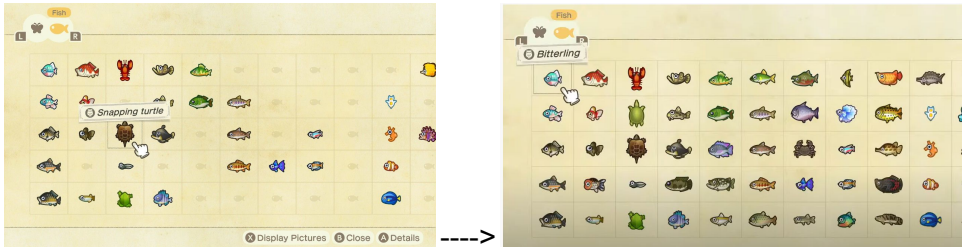
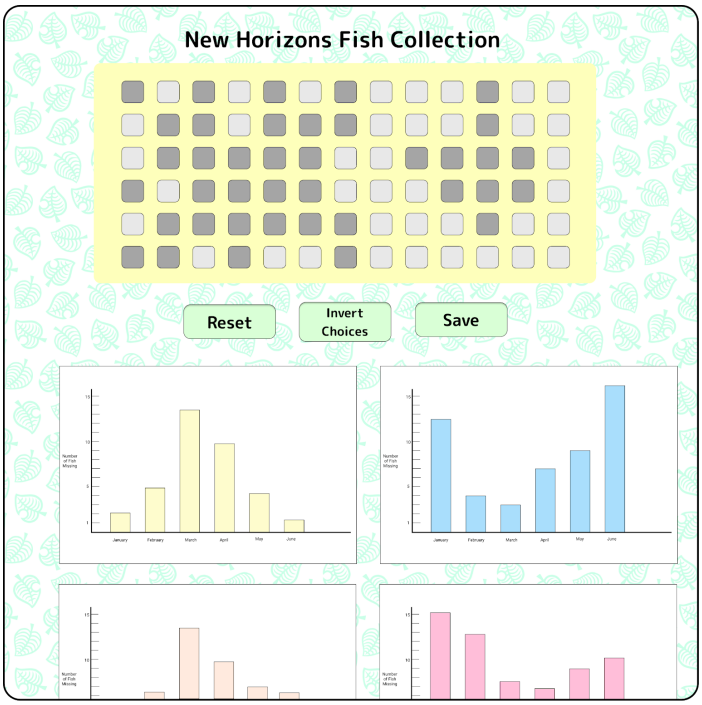
Animal Crossing Dashboard

General Overview:

In one of the most popular games in the past year, Animal Crossing new Horizons, one of the main objectives is collecting different creatures. It's a fun thing most players like to do but it can be pretty complicated at times. Many of the fish are only available for short periods of time, one or two months a year, and only at a certain time a day. The game offers no help when finding info about fish they haven't caught yet. There are 80 fish to collect and collecting all of them is not an easy feat. We want to make a dashboard to help players access information for the fish they are missing in the easiest possible way. We want to allow users to input the fish they have already caught, simply by toggling images on/off, and it will give them dynamic live feedback on how, when, and where they can catch the remaining fish, and in the most efficient ways



View of what users are trying to achieve, an unfilled 'Critterpedia' on the left and a completed one on the right



Rough Idea of what the dashboard would look like

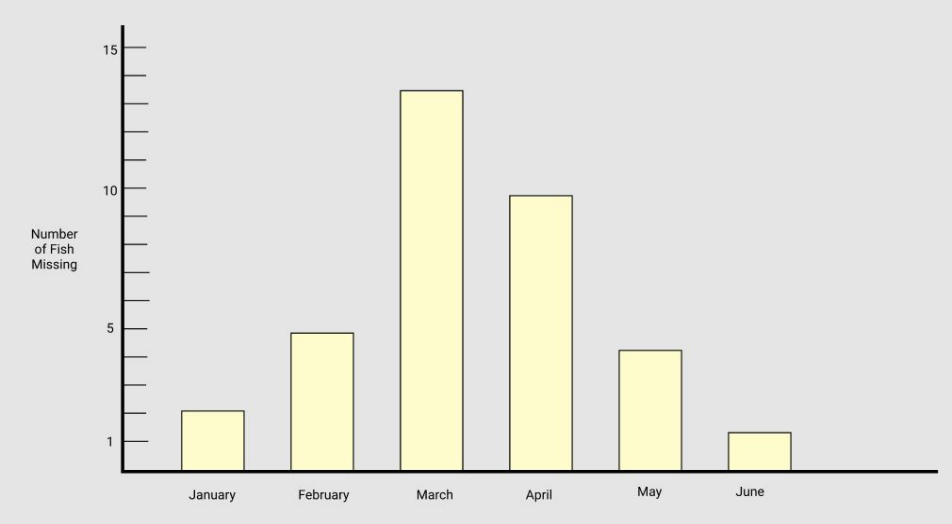
- The grid is where the user would select the fish they do/don't have
- The data would be saved locally so each time they visit they don't have to fill it out again
- The grid would look near identical to the image above this and to the right. It will have icons of the fish in the same layout as the 'Critterpedia' to make it recognizable and super easy to fill out
- It would then be followed by all our visualizations, based on the user's missing fish
- Obviously wouldn't be all bar graphs

Technical Stuff:

We haven't done any coding yet but feel like all that we have to do for this project is just variations of what we've done already. We need to store all of the user's choices into local storage, as a simple dictionary. We need to make a div that contains 80 images (one for each fish), in a 8x10 grid, and they each have a unique ID. Each of these images will run a function when pressed that will update the graphs to include or remove the data corresponding to that image. We already have all the data necessary for this project, in the form of a JSON. Fortunately this data has been scraped from the game before and has been made publicly available for us to use. We also started a repo: [Link]

Graph Types

- Bar chart:
    - Y axis: Count of fish missing
    - X axis: Months
    - This chart will see how many fish a player is missing for each month. Since the fish available changes each month, on the start of each month, it would help the user know which months they should focus on playing more during, and what months they don't have to bother fishing during

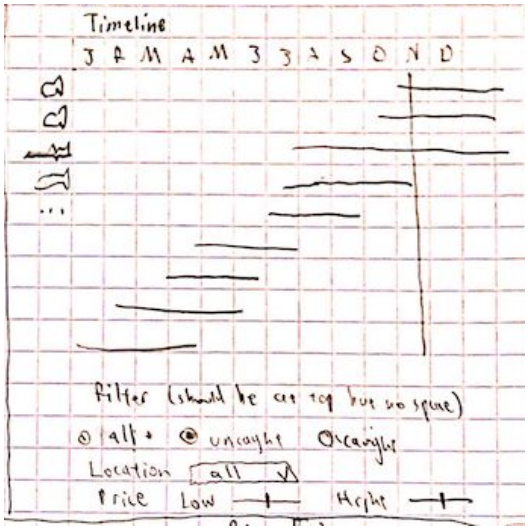


Example showing the player should fish more in March than they should in June

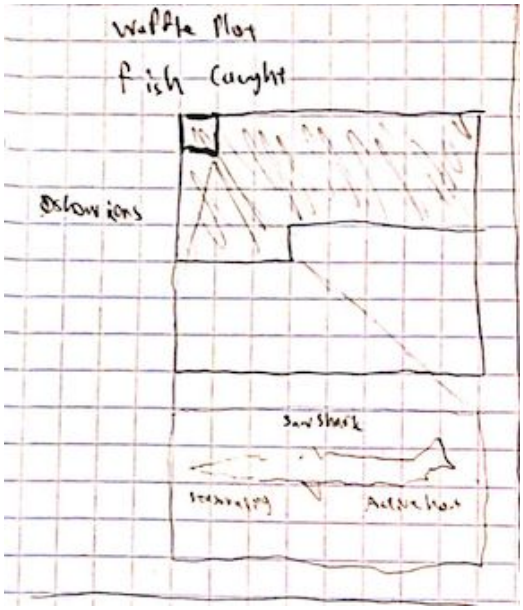
- Timeline: This shows when certain fish are available, with a line representing the current month. Fish are represented by their icon and name on the side (we will experiment with which looks best). Users can filter fish in various ways which resizes the number of fish and changes their sorted order, which by default is chronological availability times.
    - X axis: time in months (also day version)
    - Y axis: different fish
        - Default sorted chronologically
    - Line representing present date

- Customization/filter:
    - Toggle: uncaught
    - Price
    - Where caught i.e. pond, river, sea

Note we could also make a correspond version for time of day availability



- Waffle/Grid plot: # fish caught vs total. The plot will visualize user progress towards collecting all fish, a prized achievement in Animal Crossing. Highlighted cells represent caught fish and vice versa for uncaught fish. If it isn't too difficult we want to mix this with the default critterpedia (above).
    - Each cell represents fish
        - shaded/unshaded => caught/not caught



- Time of day/Calendar heatmap: Calendar heatmap corresponding to number of fish that can be caught at each hour. Users will be able to see when is the best time to catch the most fish. We also plan to add filtering for the map, like by caught vs uncaught fish. We might create a month by month version for fish catch seasons as well. This differs from the timeline by showing how many, not which fish are available at a certain time.
    - X axis: time of day
    - Y axis: AM/PM
    - Each cell colored depending on how many fish can be caught at time
        - Legend with colors: # fish