SI539 Final Project Report

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Project Type: Coding project
Presentation Slides Link: SI539 Final Presentation (Wen-Ching Chang)
Site Link: https://cwching995.github.io/Gamedrift/home
Repo Link: https://github.com/cwching995/Gamedrift

Project Overview

GAMEDRIFT is a board game website that provides rich board game resources for the board game lovers. Users can search for the board games they want to play based on their preferences. There are three pages in total: home.html, library.html, and profile.html.

Progress 1

- Hour spent: 3
- Challenges:
  - Drafting the wireframe for the library page and the profile page.
  - Creating and collecting assets, images, and copywriting related to board games.
- Successes:
  - Completed the initial HTML layout for library.html and profile.html, including the fundamental elements of the DOM structure.

Progress 2

- Hour spent: 4
- Challenges:
  - Using flex and grid containers to make the filtering section looks more organized.
  - Trying different patterns of the keyframe animation using translate and rotate functions to make the game cards “drifting” in a more realistic way.
- Successes:
  - Implemented the sliding bar and the checkbox in the filtering section of library.html.
  - Adjusted the grid to arrange the board game cards so that they fitted the screen size better.
  - Added the animation of game cards with transition and rotation following the specific pseudo-random pattern.

Progress 3

- Hour spent: 4.5
- Challenges:
    - Implementing functions to upload the background and the avatar images.
    - Adding interactive elements of an editable profile form including text, number, and date.
    - Using a transition effect to enlarge the background and the avatar when the mouse hovers over the images.
- Successes:
    - Implemented a visually appealing and functional profile form of profile.html.
    - Designed visual feedback when hovering to indicate that the image can be clicked to modify.

Progress 4

- Hour spent: 3
- Challenges:
    - Designing a sticky navigation bar positioned at the bottom of the website.
    - Adjusting the footer style to make it appear in front of the navigation bar when scrolling to the bottom of the website.
- Successes:
    - Generally completed the html/css/js files for home.html, library.html, and profile.html.

Progress 5

- Hour spent: 2.5
- Challenges:
    - Debugging the asynchronous effect resulting from the missing update assignment of the variable in the javascript.
- Successes:
    - Fixed the issue that the number of the range selection bar cannot match with the length of the sliding bar.
    - Fixed the issue that the background and the avatar cannot be changed after selecting the images to be uploaded.

Progress 6

- Hour spent: 3
- Challenges:
    - Identifying errors and warnings reported by the validator and fixing them.
    - Testing the reduced motion media query on my devices.
- Successes:
    - Added the missing label and the fieldset of the profile form.

    - Adjusted the color of the text and icons to increase the contrast ratio.
    - Added reduced motion media query that disables the animation of board game cards and the transition effect of the profile images.
    - Added media query to create responsive effect on different screen size, ensuring the game preferences options do not go over the form width, and the form size does not take up too much space.

Final “results”/lessons learned

Final Results:

- **A Functional and Interactive Website:** Successfully built a fully functional board game website with three pages that integrates advanced interactive elements such as filtering, animations, and editable user profiles.
- **Responsive and Design:** Ensured responsiveness across different screen sizes by using media queries, flexible layouts with CSS Grid and Flexbox, and scalable design elements to provide an optimized user experience on desktops, tablets, and mobile devices.
- **User-Friendly Interactions:** Implemented hover effects and animations that add more visual feedback to enhance user engagement. Moreover, a reduced motion mode is important for users with motion sensitivity, creating a more inclusive experience.

Lessons Learned:

- **Importance of Wireframing and Planning:** Drafting wireframes early in the project helped clarify the layout and functionality of each page, saving time during development.
- **Mastering CSS Grid and Flexbox:** Working on responsive layouts improved my understanding of how to effectively use CSS Grid and Flexbox to organize content dynamically. This technique is widely applied in my design of board game filtering sections.
- **JavaScript in Form Creation and Interactive Elements:** JavaScript played a crucial role in making the profile form interactive and user-friendly. It enables dynamic updates for the background and avatar images by reading and displaying uploaded files using the FileReader API.
- **Balancing Aesthetics and Functionality:** Designing visually appealing animations and interactive elements while ensuring usability and performance required iterative testing and refinement.
- **Accessibility and User Testing:** Testing for accessibility, such as adding reduced motion media queries, highlighted the importance of considering all user needs during design and implementation.