CSE 110 Warm Up Exercise

- Team 11
- Team Name = 11:eleven
- GitHub Repo Link = cse110-sp24-group11.git
- Link to YouTube video = https://youtu.be/7P8exhnZxo4

SWOT Analysis

Strengths

Process:

- Our team demonstrated strong communication and collaboration skills.
- Using Github issues helped manage the development of various features.
- The codes were well documented, which helped the collaboration.
- Coming up with a basic structure first improved the efficiency of development.

Product:

- All features were well-implemented and functioning.
- Three levels of priorities on tasks are easy to understand and use.
- Our website is colorful, clear, and visually appealing.
- Items in the list have priority, deadline and description, which helps users manage their tasks.

Weaknesses

Process:

- Development process staggered early on as the team began with a VSCode LiveShare with several people editing different components, with limited knowledge of scope and limited team communication
    - This resulted in time being spent using the LiveShare platform that ultimately did not result in any productive development and had to be overturned soon after it was assessed that this method was not optimal.
- Because no formal discussion occurred after the team branched off to work on development more separately, it was difficult for each member to know what component was being developed and by whom. Some communication regarding this occurred in Slack but a majority of the development time was spent with a lack of clarity on what was actively being worked on and built.
- Tasks were not assigned very specifically and a roadmap for development was not laid out before the development team separated to work on individual parts of the product. This perpetuated the lack of clarity with regards to how the development

process was going to be undertaken and resulted in no specific timelines or feature requirements being known.
    - This was mostly a concern during the first few days of development, but ultimately some attempts were made later to develop a feature list and use GitHub Issues to attempt to work in a more organized and compartmentalized fashion.
- The meeting to discuss the development of this warm-up exercise was conducted in a hybrid setting, akin to our first meeting. This hybrid setting involved spending time trying to coordinate with the different individuals of the team, resulting in communication barriers and an inefficient use of meeting time. Using either a full in person setting or a full virtual setting might be beneficial to mitigate these issues.
- The meeting included direct development work and did not involve much detailed planning with regards to project execution. Much more time was needed to spend planning the development stages before actual development began to help mitigate a variety of issues that would later arise, and thus, the meeting time could have been used more effectively to address this.

Product:

- Since a hardcoded JSON file was used as a basis for the data for this project, it was difficult using only vanilla HTML, CSS, and JavaScript to write to or change the data involved in the project. Team member Jacob Nelson investigated this matter and discovered that there were alternatives involving using PHP or abandoning the hardcoded JSON as a whole, but ultimately, the nature of this warm-up actively indicated that the hardcoded JSON should be used for the time being and according limitations should be accepted.
- When a task is checked off the list, it suddenly drops to the bottom of the list in a quick fashion, with no gradual decline. The sudden change does make the user experience more rough and benefits could be seen with more smoother animations for the task list.
- The task list itself does not have any labels or icons for expanding the task for additional information, it simply involves clicking the task box. Some sort of indication about how more information for the task can be retrieved over even an hovering animation to indicate that information can be accessed by clicking the task box could be beneficial to provide user clarity.
- There is a lack of support for a variety of accessibility options such as keyboard only interactions, language support, and potentially even support for individuals affected by color-blindness. Incorporating these into the task list could be the app more accessible to all potential users who might wish to use it.

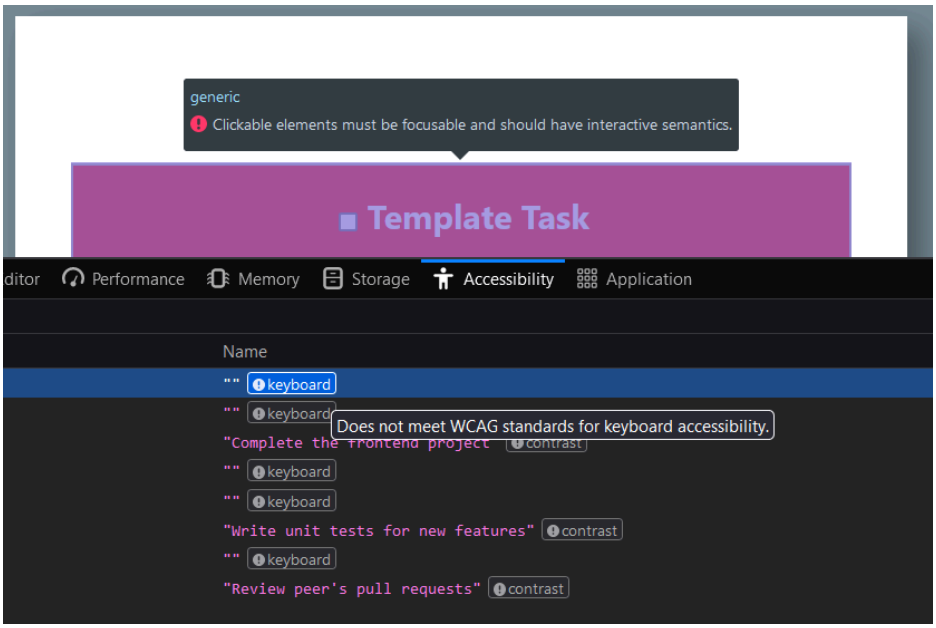
Opportunities

Process:

- Include links/results of research mentioned in the README
    - Could include images of inspiration, as well as mockups or idea boards as shown during lecture
- Schedule meetings and lay out details ahead of time, noticed some discrepancies and misunderstandings in meeting times (according to Slack messages)
- Continue branching, PRs, and merging as demonstrated for this project. Team's current use of Git is strong and tangibly aided in collaboration
    - One thing: make sure the titles of messages, branch titles, and PRs are descriptive. Any non-code text related to the project should be easily readable and understandable as to its purpose

Product:

- Explore alternative methods to JSON input since difficulties were noted trying to alter the original JSON file through Javascript
- Add accessibility



    - Unfolding task descriptions without a mouse (currently can only navigate and tick/untick checkboxes)
    - Text contrast
    - Colorblindness contrast is nonoptimal
    - Introduce add /delete buttons
    - Introduce dynamic interactions

        - Optimize for mobile web
            - Additional note: web widget behaves performantly and consistently across the most current versions of Chrome/Firefox on Linux desktop, Chrome/Firefox on Windows 11, and Safari/Firefox on iPhone
            - Not sure what the dev team's encountered issues were. In the future, it would be great to have specific elaboration/documentation and screenshots of problem behavior.
- One JSON file was sufficient here for testing the small widget, but for the big project, we should create many more test files of different sizes/purposes for performance testing
- Current code is simple and readable, continue with comments and minimalism as practiced

Threats

Process:

- Design: attempting to edit JSON files to add or remove tasks proved to be unsuccessful without access to a server side modifier.
    - Assignment was limited to JavaScript, HTML, CSS; needed PHP or Node.js to be able to modify the list of tasks.
    - HTML can not modify local JavaScript files due to possible abuse.
- Documentation for tests conducted on pull request were not very clear
    - Next time we should include specific unit tests in the comments

Product:

- When clicking the check box, the item goes to the bottom of the list, but then opens up the description; should not do this, should only be the strikethroughed out item.
- Clicking title has two different results, should only be one:
    - opens description of the task
    - sets task to completed and sends to bottom of list
- Clicking the title always acts as if you are clicking the check mark.
- Large number of opportunities for user error, namely the unstable check-box.