Leuphana Universität Lüneburg
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Written Report

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Description of My App

Self-Care Tracker is a simple and interactive Streamlit application designed to help users track their daily self-care activities. It has tasks in categories of Physical Health, Learning Skills, and Entertainment, allowing users to check off completed activities. A progress bar visually represents their achievements, and motivational messages provide encouragement based on their progress.

My Development Process

I built upon the code from my Tech Basics I exam to make the Streamlit app. I wanted to make an interactive and aesthetically pleasing app where users can track their daily tasks and check their progress.

I began by designing the layout, adding a sidebar for categories and a main section to track progress. I implemented a background image and styled the elements using CSS to make the app more visually appealing for the users. I structured tasks into three categories - Physical Health, Learning Skills, and Entertainment. Each category has multiple tasks users could check off, just like in my first exam.

The progress bar and a motivational message changes based on task completion. Finally, I added a footer with credit. I tested the functionality both myself and with a group of my close ones.

The Challenges

One of the main challenges I faced was styling the Streamlit application. Since Streamlit has limited built-in customization options, I had to use CSS injected through st.markdown(), which took a lot of trial and error to make the elements look cohesive and the way I visualized them. Another issue was aligning the background image while keeping text readable, so I added a semi-transparent background.

Another limitation was the lack of persistent task tracking. Since Streamlit resets states when the page reloads, it can't save the progress. To improve this, I would have to integrate a small database in the future.

Additionally, I initially struggled with progress calculation since checkboxes don't store a direct count. I resolved this by iterating through the tasks and manually counting checked boxes.

Feedback from Testers

I shared the app with a few testers, which were my mom, my cousin, and my two best friends, to gather feedback. Most users appreciated the simple and intuitive interface, as well as the motivational messages tied to progress tracking. A lot of the feedback was based on the appearance of the app.

Some testers suggested adding more personalization options, such as allowing users to add their own self-care tasks, as well as suggesting adding a feature to the app that remembered their progress when they close and reopen it. Based on this feedback, I would consider implementing persistent storage in future updates.

Overall, the feedback was positive, with users finding the app useful for daily motivation and self-care tracking.

Sadeta (my mother) says: "I really like the image, I think it blends your graphic design passion with the project. I think it's lovely how you have motivational messages on the screen. It would be nice if I could add my own tasks/chores to it, though."

Ajlin (my cousin) says: "The messages are really cute and I love the emojis!"

Eldrick (my best friend) says: "It's simple and easy to use but I would prefer it if I could add my own tasks. It would be better if it kept track of my progress, otherwise I would find it a little frustrating to use everyday."

Ajna (my best friend) says: "It looks really aesthetic, and could be useful for me since I struggle with basic tasks on the days when my depression gets bad."

Code Explanation

Lines 1-2: streamlit is the main library used to build the web application. datetime is used to display the current date.
Lines 4-5: This function sets the background of the Streamlit app using a custom image from a GitHub repository.
Lines 6-11: This applies a background image to the entire app using CSS.
Lines 12-23: The sidebar is given a dark background with rounded corners, padding, and a glowing green border.
Lines 24-29: This adds a transparent black background to the main container.
Lines 30-37: The main title is styled with white text, a shadow, and centered alignment.
Lines 38-44: Sets the background color, font size, alignment, text shadow and spacing of the subheader.
Lines 45-51: Sets the color, background, adds padding and rounds the border's corners, as well as a margin to separate it from other elements.
Lines 52-54: Forces all checkbox labels to appear in white.
Lines 55-57: Changes the color of the progress bar to green (#4CAF50).
Lines 58-62: Changes the background color of the status message, adds white text for readability, padding and rounds the corners.
Line 66: This injects the CSS styling into the Streamlit app using st.markdown() to change the appearance of the app.
Lines 68-69: Calls the set_bg() function to apply the background and styles.
Lines 71-76: Displays the app title and the current date.
Lines 78-82: Defines three categories of tasks: Physical Health, Learning Skills and Entertainment.
Lines 84-86: The sidebar displays task categories. completed_tasks tracks the number of checked tasks. total_tasks calculates the total number of available tasks.
Lines 88-92: Each category and task is displayed in the sidebar using checkboxes.
When a checkbox is selected, completed_tasks increases.
Line 94: Calculates the percentage of completed tasks.
Lines 96-101: Displays the progress as text and a visual progress bar.
Lines 103-121: Provides a motivational message based on progress: 70%+ → "Perfect! Keep it up!", 40-69% → "Good Job! Keep going!", Less than 40% → "Keep pushing!"
Lines 123-128: Adds a footer with credit.
Lines 130-132: Runs the main() function when the script is executed. Adds a small caption at the bottom.