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RUST Project: Daily Goal List

This application will allow a person to track their goals and set goals for the day in the terminal. It will keep a persistent record in the system of the current day's goals as well as the goal list by category.

The user will run the program and interact with a menu of options on the screen in order to work on the lists.

The Current Date will Populate on the Screen:
Current Daily Goals:

Energy	Finances	Vocation	Family	Friends	Fun	Health
gym	Deposit check	Resume work -30 min	Eat out with spouse	Find Friday activity	Watch 1 show on Netflix	Dental Appt
-smoothie	Pay bills		Dog park	Invite a friend		
Go to bed 11pm			Text sister			

OPTIONS:

- 1) Edit Daily Goal List (add, delete)
- 2) View and Edit Longer Term Goals/ Categories
*if option selected then an appropriate menu appears such as below with current goal categories and options
Input a category number or an option below:
 - 1) Energy
 - 2) Finances
 - 3) Vocation
 - 4) Family
 - 5) Friends
 - 6) FunOTHER Options:
 - 7) Add a New Category

- 8) Delete a Category
- 9) View ALL categories and goals (displays all)

If 1- 6 is entered a page would open:
(example: user enters '1')

Energy:

- 1)Gym
- 2) Smoothie
- 3) Go to bed 11 pm
- 4) Run 30 min
- 5) Go to dance class
- 6) Lift weights at the gym
- 7) Cook a healthy meal

Options:

- 1) Remove a goal
- 2) Add a goal
- 3) Return to Main Menu

If they select Remove a goal:
What number goal would you like to remove? 1
Then the list re-appears with Gym no longer on the list

If they select Option 2 (to add a goal)
Enter a new goal:
Goal: Floss
Then this goal will appear at the bottom of the list

If user enters 7, 8 or 9, user will be prompted accordingly

Functionality:

This program will save this information during the program while it is running. The data will persist in between each time the program is run and any edits that occurred will be visible to the user on the next run of the program. When an item is deleted from any list the list will need to re-order accordingly by number. Also they will need to be saved into persistent storage in any new format as such. Files will be created, deleted and added to during this program and those will persist for the next running of the program that will store the information. Or, there may be another way to store the data or work with it that I will explore and implement.

Some issues that could come up with the program that will of course need to be tested will be that category numbers that are entered as an option are correct. If an incorrect value is entered

(such as 99) the program will need to display an error message. Goals added will need to have a limit on their length. There will also need to be an option to exit the program. Before exiting the program will need to make sure the information persists.

This is a similar style to keeping track of goals that are sometimes used on applications but this keeps the goal organization in a simple format for the user. The goal list allows the user to keep their day and life more balanced with the categories included and displayed daily. The above functionality is what I would like to implement for this program.

Some challenges will be how to order and quickly retrieve this information from files. The files or storage will need to be structured in a well thought out way. This could involve deleting old files and just writing to new files to make them easy to search. I am interested in exploring what file and information storage approaches are used in RUST as well as crates with functions I can use to assist in this.

Additional Dream List Functionality for *Beyond the Term* or as time allows:

- Add current date pulled from linux.

- Add a timer in linux for start and end of goals that a user could put into the program. The user could estimate time to complete a daily task and then see the result of how long it took.

- The user could even have and set prompts appear on certain days of the week or days of the month. For example, every Sunday the prompt could appear for them to revise their weekly goals. A date could repeat at the start of the month that could have a notice for them to review yearly goals or monthly goals. There could also be a list to keep track of goals that have been completed so far. The list and storage could go back far as well. If the files were stored of these goals and progress of course the user could have these lists emailed or even texted to them, depending on the functionality. Or, I assume there could be a way to have the program even download the history of files onto a local storage automatically on their PC.

I would like to work on this project as it will help me practice and learn what is being taught in the class and book that I need to learn from the course. It sticks to what is being taught in the course and would give me a chance to apply it.