Journal Design

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CSE210

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Section A8

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v1.0

# What does the program do?

For this assignment you will write a program to help people record the events of their day by supplying prompts and then saving their responses along with the question and the date to a file.

## Functional Requirements:

This program must contain the following features:

1. Write a new entry - Show the user a random prompt (from a list that you create), and save their response, the prompt, and the date as an Entry.
2. Display the journal - Iterate through all entries in the journal and display them to the screen.
3. Save the journal to a file - CipheredPrompt the user for a filename and then save the current journal (the complete list of entries) to that file location.
4. Load the journal from a file - CipheredPrompt the user for a filename and then load the journal (a complete list of entries) from that file. This should replace any entries currently stored the journal.
5. Provide a menu that allows the user choose these options
6. Your list of prompts must contain at least five different prompts. Make sure to add your own prompts to the list, but the following are examples to help get you started:
   1. Who was the most interesting person I interacted with today?
   2. What was the best part of my day?
   3. How did I see the hand of the Lord in my life today?
   4. What was the strongest emotion I felt today?
   5. If I had one thing I could do over today, what would it be?
7. Your interface should generally follow the pattern shown in the class video demo.

## Design Requirements

In addition, your program must:

1. Contain classes for the major components in the program.
2. Contain at least two classes in addition to the Program class.
3. Demonstrate the principle of abstraction by using member variables and methods appropriately.

## Stretch Requirements

1. Add option to save and load JSON format.
2. Read configuration for the application in JSON format from config file.
3. Add checks for file extension assitance:  .csv for CSV file and .json for JSON file.
4. Add counter for prompt questions used.
5. Add last date used for prompt questions.
6. Add distribution balancer for random selection of prompt questions.
7. Add freeform prompt when all prompts have been used in the same day.
8. Ensure csv files are safe for MS Excell loading.
9. Change data store to a sqlite DB instead of list of enties in memory and json file for prompts.
10. Added encryption to both the database and file storage methods.  Maintained encryption on the data in the database, and on the prompts configuration file.

# What user inputs does it have?

1. menu prompt response.
2. entry prompt response.
3. save/load filename prompt response.
4. save/load file format prompt response.

# What output does it produce?

1. display menu:
   * + 1. Add Journal entry.
       2. Display journal.
       3. Load journal.
       4. Save journal.
       5. Exit.

>

1. display random entry prompt.
   1. Who was the most interesting person I interacted with today?

>

* 1. What was the best part of my day?

>

* 1. How did I see the hand of the Lord in my life today?

>

* 1. What was the strongest emotion I felt today?

>

* 1. If I had one thing I could do over today, what would it be?

>

* 1. What did you do today to serve someone?

>

* 1. What did you ponder over in your scriptures today?

>

* 1. What Christ-like attribute did you emulate today and how?

>

* 1. How were you helped today and by who?

>

* 1. What outside event did you witness or ponder today?

>

* 1. What did you do today, that was enjoyable?

>

* 1. What did you learn today?

>

* 1. What did you improve in your life today?

>

* 1. What happened today that you didn't like and how could you manage it better?

>

* 1. What would you like to write in your journal?

>

1. request filename prompt.

please enter the filename:

>

1. file format menu:

1)  CSV.

2)  JSON.

>

1. report saving file.

saving to file...

1. report loading file.

loading from file...

1. report unable to read csv.

Unable to read file as CSV.

1. report unable to read json.

Unable to read file as JSON.

1. display journal entries.

Journal:

{date} prompt: {prompt}

{response}

{date} prompt: {prompt}

{response}

...

1. exit message

Thank you for using the Journal Program, hope to see you tomorrow.

# How does the program end?

# The user will select the exit option from the menu.

# Class Diagram:

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