Project name: Library Computer System

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Programming topics that will be used:
- Loops
- OOP
- CLI
- File handling
- JSON

Optional topics:
- Uploading to github
- Hashing
- Similar strings (for wrong inputs)
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Backstory: Because you are the most awesome developer out there and everybody knows you, the local library has decided to ask for your help.

The mission: The librarian wants you to create a program that will be used by the visitors of the library and the librarians them-selves, They want you to create a system that asks the user what role they are (librarian/visitor), if the user enters "librarian" then the system will ask the user to enter a changeable password (which only a user that is logged in as a librarian can change), If the password is correct then some functions as:

1. Add book
2. See rented books
3. Change password
4. See book stock

If its not it will ask the user to enter their role again, if they enter visitor they'll have the following functions:

1. Rent book
2. Return book
3. See all books

4. Search for book

(Use for each function will be explained below in the function explanation header)

Function explanation:

- Add book - Will add book and ask the librarian for book name, writer, release date, description and id (if no id entered it will create a random id. Books by the same name will have the same ID)
- See rented books - will allow the librarian to see all rented books by visitors as a list of book names, if multiple people took a book by the same name it will be shown like this:
  `- book_name: 2`
  - Change password - It will simply allow the librarian to change the librarian user password
  - See book stock - will show as a list all books that are currently rentable (like in the `See rented books` list)
  - Rent book - will allow the user to enter a book ID and rent it
  - Return book - will allow the user to enter a book ID to return it
  - See all books - will provide a list of all books (available books)
  - Search for book - will allow the user to search through all available books. the search should match the book name

Notes:

1. This program should use classes for the librarian and visitor as they have different methods
2. This program should save books in a file and update it as they are rented or returned, this should also save the librarian password in a file (a JSON file)
3. You are not expected to finish this immediately and you are expected to have question so feel free to ask (and google)
4. This program should be CLI (Command Line Interface) no GUI
5. Comment your code - https://swimm.io/learn/code-collaboration/comments-in-code-best-practices-and-mistakes-to-avoid

Bonuses:

1. In the search book functions, users will be able to search for book name AND description in a way called fuzzy search (google it)
2. If a user enters a wrong input, example: they meant librarian but they typed librarin then the program will output this: `Sorry, but the input "librarin" is not available, did you mean librarian?` Use this with FUZZY search
3. When a password is saved you should HASH it which means turning into an irreversible string of 32 characters, so if your password file gets leaked the password wont be. So when asking the password it would hash it and then compare it to the hashed password in the file and when a password changes it will save it as hashed too. for password hashing: https://security.stackexchange.com/a/36838
4. When making a big project as this one you should always be able to revert any changes and save them on cloud, thats github. learn here how to use it: https://www.youtube.com/watch?v=HkdAHXoRtos (you can use a VScode extension instead of commands)

   MOST IMPORTANT: Don't try to do this fast, there's no time limit, if you don't understand something ask. this is a BIG project. once you get it done, you can be sure you got the basics. I don't expect you to do this without questions. if you need any clarification feel free to ask, if you want to add anything feel free to add.

In the end you should send me a GitHub link to your repository and ill test your code.