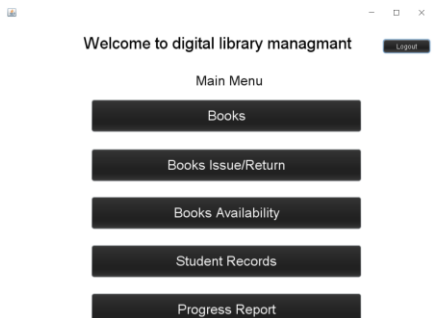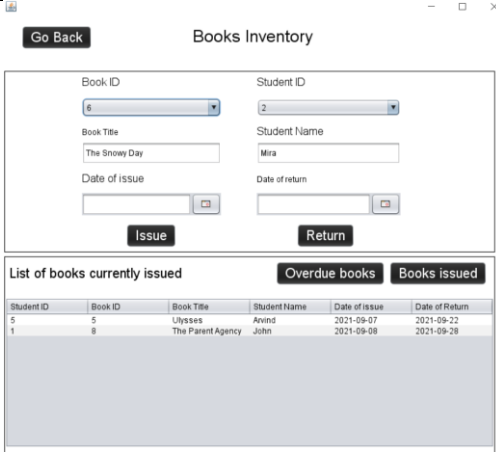# Digital Library management
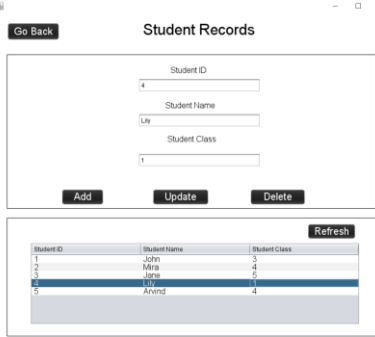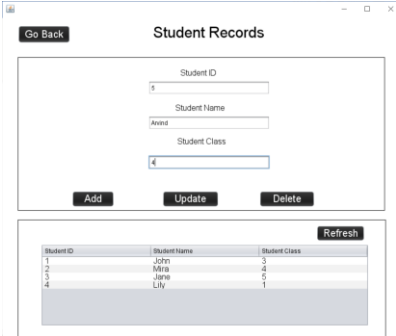
Criteria E – Evaluation
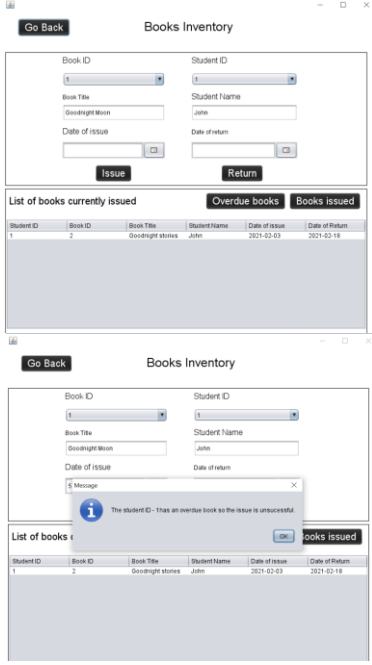
Evaluation
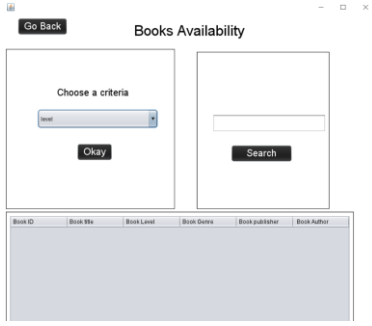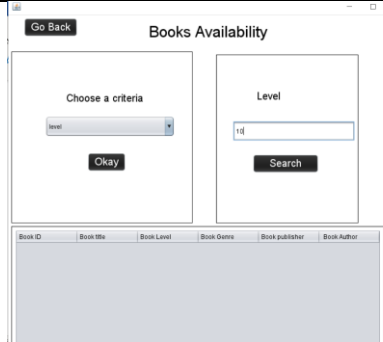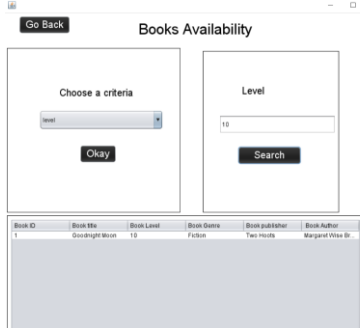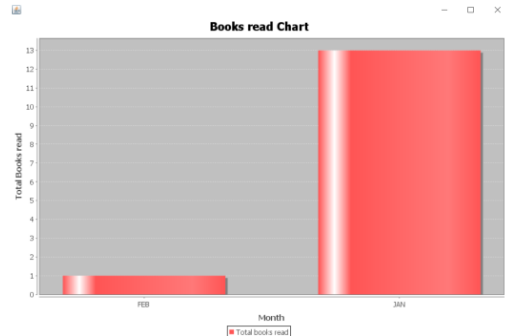
The client believes that the product is easy to operate, nullifies manual intervention and improves efficiency for her. The feedback interview in the appendix is based on which the evaluation and recommendation are mentioned.
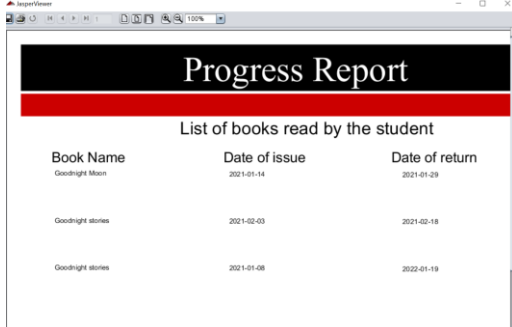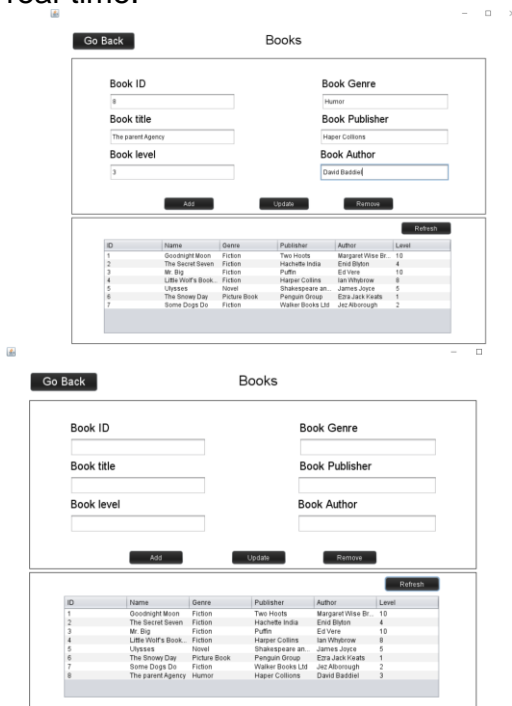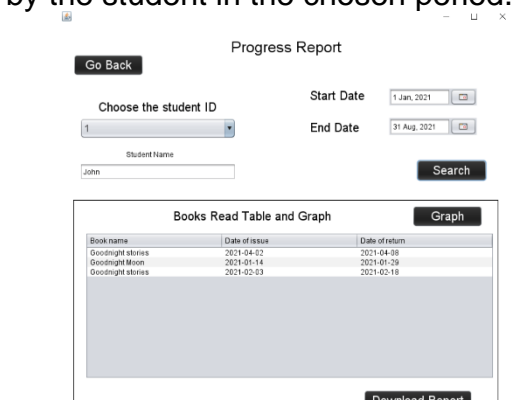
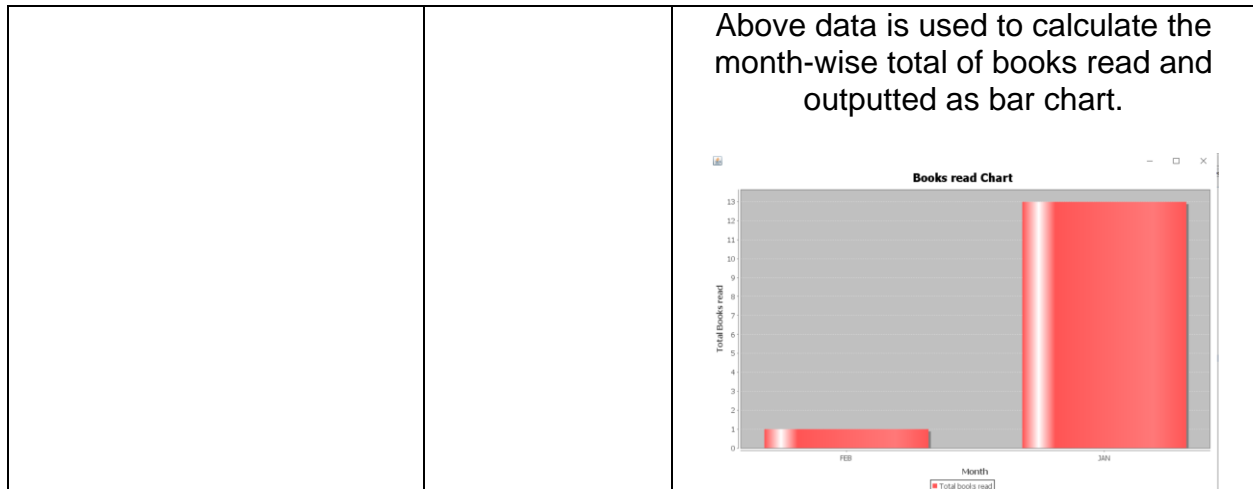| Success Criteria	Met or not?	Description
1) Restrict undesired access to the library management system and provide privacy.	Met	The login form will require credentials to provide access to the software.
2) A user-friendly desktop application with easy navigation	Met	In the dashboard form, the diligent use of Java features like buttons, forms etc. make the application user friendly and easy to navigate.
3) Easily accessible data from GUI with pre-populated dropdown fields	Met	In the book inventory form, all the stored student and book details can be retrieved, and we will be choosing the Book ID 6 and student ID 2 from the dropdown and we can see the information related to it is updated in real-time.

4) Avoidance of Data Re-entry at multiple forms like Student form, Book form and hence ease down manual entries	Met	To avoid re-entrance of data entries in various forms, the client can simply click on the records in the table and the data will be copied into the textbox.
5) Real-Time access to student and book data with a robust supported Database	Met	In the book form, any update in a book record will be reflected on the table below in the same form in real-time and in other forms too.

		Student Records
6) Automatically filtering data from the database to get the desired results from the PostgreSQL	Met	In the book availability form, we can see the use of SQL statements especially "select" to filter out and find all the desired books based on criteria.
7) List out all the student's names with their details who have overdue books	Met	In the book inventory form, clicking the Book overdue button a list of overdue books will be automatically created.

8) Check whether a book is overdue for a student or not and if there is an overdue book then Automated Warning Generation for Overdue Books and recommended action	Met	In the book inventory form, a robust algorithm is used to verify book overdue for the student and warn when a student is issuing a book how has an overdue book. Just like Student ID 1 below.
9) Searching available books based on criteria chosen by the client	Met	In the book availability form, the client can search up if a book is available and has not been issued based on pre-defined criteria

10) Automatically create a Bar Graph depicting the progress of the student over the month chosen by the client	Met	In progress report form, on-click of graph button, a bar chart generates based on the student ID and period chosen
11) Automatically generating a progress report mentioning the information about the books read by the student and how long has he read the book.	Met	In the progress report form, on-click of the report button a report generates listing all the books read by the student over a period.

12) Forms Refreshed seamlessly to reflect the updated field data	Met	In the book form, on-click of the refresh button, the information is updated in real-time.
13) Automatic retrieval and reporting the total number of books read in each month per student in graphical format	Met	In the progress report form, the screenshot depicts all the books read by the student in the chosen period.

		Above data is used to calculate the month-wise total of books read and outputted as bar chart.

Recommendations for Further Development

Automatic mailing of progress report

The client wants the generated progress report to be mailed directly to the parents of the students with a customized message, so the client doesn't need to manually mail it. To achieve this, a pre-defined email library will be used to mail the progress report with the customized message automatically and the parent email address and name will be recorded when a new student record is added into the system.

Automatic System Backup

The client wants automatic backup of the data in case there is an issue with the system then the data should be present in a Disk drive. To achieve this, the data from the centralized database will be backed up in a Disk drive provided by the client automatically.

Book vendor details

The client wants a record of the vendor details once a new book is bought so the vendor details can be shared with the school authority, so she doesn't need to manually record. To achieve this, in the book form when a book is added then the client can store the vendor details.

Most books read calculation

The client is planning to award students who have read the most books in each grade, therefore, the client wants an additional report is generated which calculate the total number of books. To do this, a button in the progress report form will automatically generate a report calculating which student read the most books.

Word count: 226