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## Documentation

Starting from the void main() function we implemented a check that if user press 1 then the librarian panel will appear and if user press 2 then the student panel will appear. In the librarian panel there are 4 functions: search book, view all books, add book and edit book information. Further we implement a switch that either librarian presses from 1 to 4 to add, edit, view and search books. All of these 4 functions have been implemented in a class definition. For searching book we have designed three more functions that are search by ID, Title or by Author. There is also a functionality in editing book that if librarian wants to edit book's ID, Title, Quantity or author. So respectively all of these have separate function in class definition. Add book function takes all the attributes of a book like it's Id, title, author name and quantity from the librarian and adds it to the book lists in a file. View all books function simply shows all the available books to the librarian. Search book function search a particular book from a list either by id, title or author name.

In the second phase of the student panel we have implemented a two way option of either sign in or sign up of a student. For signing in a student if and only if password entered by student matches then he/she will be able to place a order off book, view all available books, return an issued book and also search a book from a list. If a student place a order of book than 1 book is reduced from a file book.txt and also if the student return a book

then 1 book number that quantity of books increases by 1 in book.txt. The search book functionality previously used in librarian panel is also same here for the student panel so our search function and sub search function that are search by id,title or by author are generic. And the return function when called open specific student book file and decreased one number from that file and all the attributes of a book and add the id and all attributes of the book in the librarian's book file. When a student sign up for the very first time then it's roll number, password, first name and last name is added in studentusers.txt file.