**REPORT ON PROJECT: LIBRARY MANAGEMENT SYSTEM**

**GROUP MEMBERS:**

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**Module: O. O.P**

In the project description we were told to use python classes to implement the library system. The first class we had was for the library. However, we created a variable called listofbooks, where we stored all the available books in the library.

Then we had a line of code to display the books which we initialized as displayAvailiableBooks. In this line you would see that self.books which contains the listofbooks in the library was passed as a function to the displayavailiableBooks variable. We had a print statement that will print out all the books available in the library.

For the requestBook we passed in three parameters which is the self, name and the bookname, if the bookname is not in the self.books then an error message will be printed out saying that the book the user entered is not available else it would issue the book to the user and then mark it as unavailable in the list of books by removing it in the list.

The returnBook has two parameters which is the self and bookname, and we used the append() function to add the returned book to an already existing list, which is the self.books and a print statement telling the user that the return was successful

The addBook has two parameters as well self and bookname and also makes use of the append which adds a new book to the already existing books in self.books assuming a user enters in a new book.

The second class we had was the student class, this is where we created a functionality of interaction between the user and the application. We defined the variable requestBook with one parameter self that we created in the Library class and added print statement that would prompt the user to enter a book to be borrowed, then the input of the user is passed to self.book and a return statement is initialized basically displaying the borrowed book by the user.

For the returnBook in the class student we have a prompt message which takes the name of the student returning a book and stores it into the variable name then the book to be returned is entered by the user and also stored in the variable self.book. the if statement in that line of code basically checks if the name of the user and the book being returned is in the track for borrowed books if it matches it goes on to remove their details from the track and retuens the updated self.book

The addBook in the student class simply prompts a user to enter in a book then stores that book in the self.book which is the listofbooks in the library then returns it to the list of books in the library.

Finally our last line of code was just a fancy way of displaying the menu for the application.

USER MANUEL:

The project on library management system is a user based framework where we have different prompt options that tells the user how to navigate through the application, so it’s paramount we have a user Manuel for the “users”, to interact efficiently with the application without experiencing any struggles. Firstly, we have the welcome page which shows options of functions performed in the application. So we have six options in the menu; the first one list all the books we have stored in the library, then the user can choose the second option to borrow a book from the listed books in the library. However, the third option which is the Return books, returns the books that the user borrowed. We have the fourth option which is the Add book it basically allows a user to add a book to the already existing list of books in the library and then the fifth option tracks all the borrowed books to check whether the borrower returned it at the due date. Lastly the user can exist the library with the sixth option.

In terms of team work I and my partner basically did everything together for the coding part I would say she did most of the work because she has a good knowledge of python while I did the report with a little help from her.

We encountered so much problems including ones we could not fix which ones adding the edit and the delete option. We got the codes right for the edit and delete but when we tried to implement it into the whole code is somehow messes every other thing up and we did not seem to know what might be the problem so we left it out. Another major problem we faced was connecting the txt files which we could not get working, apart from that we made sure other functions we were working efficiently.