**Algorithm**

Step 1: Start

Step 2: Welcome Message. Press any key to continue

Step 3: Login! Enter login detail.

Step 4: If matches, goto step 6. Else goto step 5.

Step 5: If step 3 is repeated for many times,

Step 5.1: Display “Login Failed”

Step 5.2: Close the program.

Step 6: Display “Login is Successful”

Step 7: Show Main Menu

Step 8: Enter choice form menu

Step 9: If the choice is between 1 to 6, goto step 10. Else Display Invalid Choice.

Step 10: If choice is 1 “Insert Record”.

Step 10.1: Show Enter the Book ID

Step 10.2: Check the Book ID in Database If match found goto Step 10.3 Else goto Step 10.4

Step 10.3 Display Enter Unique Book ID. Goto step 10.1

Step 10.4: Enter the Detail of Book and Student

Step 10.5: Display “Do you want to insert record of another book” if yes goto step 10.1. Else goto step 7.

Step 11: If choice is 2 “Display Record”.

Step 11.1: Display the List of Books.

Step 11.2: goto step 7.

Step 12: If choice is 3 “Update Record”.

Step 12.1: Enter the Book ID which you want to update. If Book ID matched with database record goto step 12.2. else display “Record not found” goto step 12.

Step 12.2: Display the existing data and Display Enter the New data.

Step 12.3: Display “The record has been successfully updated in the data file”

Step 12.4: goto step 7.

Step 13: If choice is 4 “Delete Record”.

Step 13.1: Display “Enter the Book ID which you want to delete”.

Step 13.2: If record found goto step 13.3. Else display “No record found” goto step 13.1.

Step 13.2: Display “The record has been successfully deleted form the data file”

Step 13.3: goto step 7.

Step 14: If choice is 5 “Search Record”

Step 14.1: Display Search Menu.

Step 14.2: Enter a number between 1 to 4.

Step 14.3: If choice is 1

Step 14.3.1: Enter the Book ID.

Step 14.3.2: If record found Display the record. Else Display no record found goto step 14.1

Step 14.3.3: goto step 7.

Step 14.4: If choice is 2.

Step 14.4.1: Enter the Student Name

Step 14.4.2: If record found Display the desire record. Else Display no record found got to step 14.1

Step

Step 14.5: If choice is 3.

Step 14.5.1 Enter the Book Name

Step 14.6: If choice is 4.

Step 14.6.1: goto step 7.

Step 15: If choice is 6 “Quit”;

Step 15.1: Display “Thank you!”

Step 15.2: Close the program. Else Display “Invalid choice”

Step 15.3: goto step 7.

Step 16: Stop