DBS ABSTRACT

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**Subject:** Database Systems Lab

**Task:** Lab-12

**Project Title: MANIPAL LIBRARY**

**Platform:** Android

**Language:** Java

**DB Software:** SQLite [integrated with Android Studio]

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**SYNOPSIS**

This implementation of Database Structures in Management Application creates an interface for a user to interact with a Library Database, which fulfills the following user stories:

* User can view all the books offered by the library
* User can issue an available book
* User can return a book that they issued earlier
* User can donate a book to the library
* Anyone can register as a User in the Library
* Librarian can add a book to the library
* Librarian can access activity log associated with the issue and return of a book

**IMPLEMENTATION**

**FRONT-END:** It is implemented in XML, which draws ‘Activities’ via Gradle Scripts on an Android Device, with the help of Software Development Kit (SDK) for Android, coded on the IDE Android Studio. Styling is done with XML formatting.

**BACK-END:** It is implemented using Java, with the help of Android SDK Packages, in Android Studio. Interfacing with Front-end is coded here.

**Database:** It is implemented on SQLite, which is integrated with Android via SQLite Classes. It allows for Creation of Databases and Tables [DDL], on which data storage and querying [DML] can be executed. The Database is created in accordance with the Projected Schema derived from its ER Model.

**END PRODUCT:** Expected result of the project is an Android App which follows the above user stories.

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