**RDBMS MINI PROJECT**

**(SPRINT 1 &2)**

**LIBRARY MANAGEMENT SYSTEM**

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1. **Introduction**

This document outlines a mini project for the RDBMS LOT. The project is to design the database, reports the queries related to Library Management System. This document contains information about the attributed that will be participating in the system and guidelines about reports.

* 1. **Setup Checklist for Mini Project**

Minimum System Requirements

* Physical Memory (RAM) - 1GB Minimum
* Virtual Memory - Double the amount of RAM
* Disk space - Total 5 GB
* Processor - 550 MHz minimum
* Video Adapter - 256 colors
  1. **Instructions**
* Follow standards while coding
* Create a directory by your name in drive <drive>. In this directory, create a subdirectory MiniProject. Store your Project here.
* You can refer to your course material.
* The total time required to complete this mini project is 8 hrs.
* Maintain the code.

1. **Problem Statement**
   1. **Objective**

Designing the database, developing the queries and basic reports required for Library Management System

* 1. **Abstract of the Project**

## A Library Management System is a software built to handle the primary housekeeping functions of a library. Libraries rely on library management systems to manage asset collections as well as relationships with their members.

## Library management systems help libraries keep track of the

## books and their checkouts, as well as members’ subscriptions and profiles. The system must be able to maintain database for entering new books and recording books that have been borrowed with their respective due dates.

* 1. **Functional components of the project**

Design the normalized relational database using the following details. You can make appropriate assumptions wherever required. Some of the attributes are given below with the restrictions on data it can contain. Find the required attributes for all the tables and create appropriate constraints on it. (For Ex. Primary key, Foreign key, etc.)

Some of the entities and attributes are as follows:

* **Book\_Master** - book id, book name, book\_author, book publication date, book type, book price, book description
* **Book\_issue\_details** – issue\_id, book id, member id, issue\_date, issue\_renewal, issue\_expiry, issue\_description
* **Librarian Master -** Librarian id, Librarian name, Librarian mobile,

Librarian email, librarian username, Librarian password, librarian address

* **Member Master**  - member id, member name, member mobile, member email , member username, member password, member address
* **Address Master** – address id, address description

This Mini project will be done individually. Implement the Software development life cycle for the project and develop code for the respective functionality. The librarian must be able to put request of a specific book as Given by member

This project shall be done in 2 parts :

* Librarian login and registration.
* The librarian must be able to put request of a specific book as Given by member

Some of the guidelines/protocols are given below:- Normalize the tables.

* Create additional tables, if necessary.
  1. **Technology Used**

Databases:

Oracle 11G Express Edition

1. **Implementation in RDBMS LOT**
   1. **Guidelines on the functionality to be built :**

* Write a procedure which will return the list of books drawn in a day, it must show columns as member\_id, member\_name, book\_id, book\_name
* Write a procedure which will return the list of members whose books return date is expired, it must show columns as member\_id, member\_name, book\_id, book\_name
* Write a procedure which will do transaction processing when a book

is issued to a member details must be stores in the respective tables

* Write a procedure which will Add transaction of a new book in the database
* Write a procedure which will Add transaction of a new member in the database

**SPRINT 2**

1. Perform performance tuning on the database and the pl/sql code built.
2. Create the entire database in Oracle db.
3. **Evaluation and assessment parameters:**
   1. **Evaluation**

* Evaluation will be done at the end of Oracle training
* Total Marks: 100
* Marks Distribution mentioned below.

This Mini project will be done individually. Implement the Software development life cycle for the project and develop code for the respective functionality. Evaluation will be done using online presentation mode, where participant will present their work.

This project shall be evaluated in two parts:

* Marks distribution is for one part of project evaluation (Marks: 90)
* Project Presentation is another part of project evaluation (Marks: 10)