

## Abstract:

Library management system is a project which aims in developing a computerized system to maintain all the daily work of library .This project has many features which are generally like facility of user login and a facility of teachers login. It also has a facility of admin login through which the admin can monitor the whole system. The librarian after logging into his account i.e. admin account can generate various reports such as student report , issue report, teacher report and book report.

Overall this project of mine is being developed to help the students as well as staff of library to maintain the library in the best way possible and also to reduce the human efforts.

## Design Requirements :

We require 5 tables i.e., librarian, students ,book, issue and breturn.

### a) Librarian:

```
[mysql> desc librarian;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id     | varchar(20)   | NO   | PRI | NULL    |       |
| password | varchar(20)  | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

### b) Book:

```
[mysql> desc book;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| bookid | varchar(20)   | NO   | PRI | NULL    |       |
| Title  | varchar(200)  | YES  |     | NULL    |       |
| Author | varchar(200)  | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.01 sec)
```

### c) Students:

```
[mysql> desc students;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| name  | varchar(100)  | YES  |     | NULL    |       |
| rollno | varchar(20)   | NO   | PRI | NULL    |       |
| Branch | varchar(20)   | NO   |     | NULL    |       |
| Course | varchar(100)  | YES  |     | B.E     |       |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.01 sec)
```

### d) Issue:

```
[mysql> desc issue;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| issue_date | date          | NO   |     | NULL    |       |
| bookid     | varchar(20)   | YES  | MUL | NULL    |       |
| rollno     | varchar(20)   | YES  | MUL | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

### e) Bretturn:

```
[mysql> desc bretturn;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| bretturn_date | date          | NO   |     | NULL    |       |
| bookid       | varchar(20)   | NO   | MUL | NULL    |       |
| rollno       | varchar(20)   | NO   | MUL | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```