ASSIGNMENT 20

Library Table

i)Library Book Detail Table

```
mysql> desc lib_book_details;
+--------------+--------------+------+-----+---------+-------+
| Field        | Type         | Null | Key | Default | Extra |
+--------------+--------------+------+-----+---------+-------+
| BOOK_CODE    | varchar(10)  | NO   | PRI | NULL    |       |
| BOOK_TITLE   | varchar(50)  | NO   |     | NULL    |       |
| CATEGORY     | varchar(15)  | NO   |     | NULL    |       |
| AUTHOR       | varchar(30)  | NO   |     | NULL    |       |
| PUBLICATION  | varchar(30)  | YES  |     | NULL    |       |
| PUBLISH_DATE | date         | YES  |     | NULL    |       |
| BOOK_EDITION | int          | YES  |     | NULL    |       |
| PRICE        | decimal(8,2) | NO   |     | NULL    |       |
| RACK_NUM     | varchar(3)   | YES  |     | NULL    |       |
| DATE_ARRIVAL | date         | NO   |     | NULL    |       |
| SUPPLIER_ID  | varchar(3)   | NO   | MUL | NULL    |       |
+--------------+--------------+------+-----+---------+-------+
11 rows in set (0.01 sec)

mysql> select *from lib_book_details;
```

BOOK_CODE	BOOK_TITLE	CATEGORY	AUTHOR	PUBLICATION	PUBLISH_DATE	BOOK_EDITION	PRICE	RACK_NUM	DATE_ARRIVAL	SUPPLIER_ID
BL000001	Java How To Do Program	JAVA	Paul J. Deitel	Prentice Hall	1999-12-10	6	600.00	A1	2011-05-10	S01
BL000002	Java: The Complete Reference	JAVA	Herbert Schildt	Tata Mcgraw Hill	2011-10-10	5	750.00	A1	2011-05-10	S03
BL000003	Java How To Do Program	JAVA	Paul J. Deitel	Prentice Hall	1999-05-10	6	600.00	A1	2012-05-10	S01
BL000004	Java: The Complete Reference	JAVA	Herbert Schildt	Tata Mcgraw Hill	2011-10-10	5	750.00	A1	2012-05-11	S01
BL000005	Java How To Do Program	JAVA	Paul J. Deitel	Prentice Hall	1999-12-10	6	600.00	A1	2012-05-11	S01
BL000006	Java: The Complete Reference	JAVA	Herbert Schildt	Tata Mcgraw Hill	2011-10-10	5	750.00	A1	2012-05-12	S03
BL000007	Let Us C	C	Yashavant Kanetkar	BPB Publications	2010-12-11	9	500.00	A3	2010-11-03	S03
BL000008	Let Us C	C	Yashavant Kanetkar	BPB Publications	2010-05-12	9	500.00	A3	2011-08-09	S04

ii)Library Book Issue Detail Table

```
mysql> select *from lib_book_issue;
+---------------+-----------+-----------+------------+-------------+---------------+------------+
| BOOK_ISSUE_NO | MEMBER_ID | BOOK_CODE | DATE_ISSUE | DATE_RETURN | DATE_RETURNED | FINE_RANGE |
+---------------+-----------+-----------+------------+-------------+---------------+------------+
|             1 | LM001     | BL000001  | 2012-05-01 | 2012-05-16  | 2012-05-16    | R0         |
|             2 | LM002     | BL000002  | 2012-05-01 | 2012-05-06  | 2012-05-16    | R2         |
|             3 | LM003     | BL000007  | 2012-04-01 | 2012-04-16  | 2012-04-20    | R1         |
|             4 | LM004     | BL000005  | 2012-04-01 | 2012-04-16  | 2012-04-20    | R1         |
|             5 | LM005     | BL000008  | 2012-03-30 | 2012-04-15  | 2012-04-20    | R1         |
|             6 | LM005     | BL000008  | 2012-04-20 | 2012-05-05  | 2012-05-05    | R0         |
|             7 | LM003     | BL000007  | 2012-04-22 | 2012-05-07  | 2012-05-25    | R4         |
+---------------+-----------+-----------+------------+-------------+---------------+------------+
7 rows in set (0.00 sec)

mysql> desc lib_book_issue;
+---------------+-------------+------+-----+---------+-------+
| Field         | Type        | Null | Key | Default | Extra |
+---------------+-------------+------+-----+---------+-------+
| BOOK_ISSUE_NO | int         | NO   | PRI | NULL    |       |
| MEMBER_ID     | varchar(10) | NO   | MUL | NULL    |       |
| BOOK_CODE     | varchar(10) | NO   | MUL | NULL    |       |
| DATE_ISSUE    | date        | NO   |     | NULL    |       |
| DATE_RETURN   | date        | NO   |     | NULL    |       |
| DATE_RETURNED | date        | YES  |     | NULL    |       |
| FINE_RANGE    | varchar(3)  | YES  | MUL | NULL    |       |
+---------------+-------------+------+-----+---------+-------+
7 rows in set (0.01 sec)
```

iii)Library Fine Details Table

```
mysql> desc lib_fine_details;
+-------------+---------------+------+-----+---------+-------+
| Field       | Type          | Null | Key | Default | Extra |
+-------------+---------------+------+-----+---------+-------+
| FINE_RANGE  | varchar(3)    | NO   | PRI | NULL    |       |
| FINE_AMOUNT | decimal(10,2) | NO   |     | NULL    |       |
+-------------+---------------+------+-----+---------+-------+
2 rows in set (0.00 sec)

mysql> select *from lib_fine_details;
+------------+-------------+
| FINE_RANGE | FINE_AMOUNT |
+------------+-------------+
| R0         |        0.00 |
| R1         |       20.00 |
| R2         |       50.00 |
| R3         |       75.00 |
| R4         |      100.00 |
| R5         |      150.00 |
| R6         |      200.00 |
+------------+-------------+
7 rows in set (0.00 sec)
```

iv)Library Member Detail Table

```
mysql> desc lib_members;
+-------------------+-------------+------+-----+---------+-------+
| Field             | Type        | Null | Key | Default | Extra |
+-------------------+-------------+------+-----+---------+-------+
| ID                | varchar(10) | NO   | PRI | NULL    |       |
| FIRST_NAME        | varchar(30) | NO   |     | NULL    |       |
| LAST_NAME         | varchar(30) | NO   |     | NULL    |       |
| CITY              | varchar(20) | YES  |     | NULL    |       |
| DATE_REGISTER     | date        | NO   |     | NULL    |       |
| DATE_EXPIRE       | date        | YES  |     | NULL    |       |
| MEMBERSHIP_STATUS | varchar(15) | NO   |     | NULL    |       |
+-------------------+-------------+------+-----+---------+-------+
7 rows in set (0.00 sec)

mysql> select *from lib_members;
+-------+------------+------------+-----------+---------------+-------------+-------------------+
| ID    | FIRST_NAME | LAST_NAME  | CITY      | DATE_REGISTER | DATE_EXPIRE | MEMBERSHIP_STATUS |
+-------+------------+------------+-----------+---------------+-------------+-------------------+
| LM001 | Amit       | Khan       | CHENNAI   | 2012-02-12    | 2013-02-11  | Temporary         |
| LM002 | Abdhul     | Gupta      | DELHI     | 2012-04-10    | 2013-04-09  | Temporary         |
| LM003 | Gayan      | Sharma     | CHENNAI   | 2012-05-13    | 2013-05-12  | Permanent         |
| LM004 | Radha      | Modi       | CHENNAI   | 2012-04-22    | 2013-04-21  | Temporary         |
| LM005 | Guru       | Ranka      | BANGALORE | 2012-03-30    | 2013-05-16  | Temporary         |
| LM006 | Mohan      | Chaudhari  | CHENNAI   | 2012-04-12    | 2013-05-16  | Temporary         |
+-------+------------+------------+-----------+---------------+-------------+-------------------+
6 rows in set (0.00 sec)
```

v)Library Supplier Details Table

```
mysql> desc lib_suppliers_details;
+---------+-------------+------+-----+---------+-------+
| Field   | Type        | Null | Key | Default | Extra |
+---------+-------------+------+-----+---------+-------+
| ID      | varchar(3)  | NO   | PRI | NULL    |       |
| NAME    | varchar(30) | NO   |     | NULL    |       |
| ADDRESS | varchar(50) | YES  |     | NULL    |       |
| CONTACT | bigint      | NO   |     | NULL    |       |
| EMAIL   | varchar(15) | NO   |     | NULL    |       |
+---------+-------------+------+-----+---------+-------+
5 rows in set (0.01 sec)

mysql> select *from lib_suppliers_details;
+-----+----------------------+-----------+------------+------------------+
| ID  | NAME                 | ADDRESS   | CONTACT    | EMAIL            |
+-----+----------------------+-----------+------------+------------------+
| S01 | SINGAPORE SHOPPEE    | CHENNAI   | 9894123555 | sing@gmail.com   |
| S02 | JK Stores            | MUMBAI    | 9940123450 | jks@yahoo.com    |
| S03 | ROSE BOOK STORE      | TRIVANDRUM| 9444411222 | rose@gmail.com   |
| S04 | KAVARI STORE         | DELHI     | 8630001452 | kavi@redif.com   |
| S05 | EINSTEN BOOK GALLARY | US        | 9542000001 | eingal@aol.com   |
| S06 | AKBAR STORE          | MUMBAI    | 7855623100 | akbakst@aol.com  |
+-----+----------------------+-----------+------------+------------------+
6 rows in set (0.00 sec)
```

Querys Section

1) Write a SQL query to display the member id, first name, last name of the members, book code, and title of the books taken by members

```
+--------+------------+-----------+-----------+-------------------------------+
| id     | first_name | last_name | book_code | book_title                    |
+--------+------------+-----------+-----------+-------------------------------+
| LM001  | Amit       | Khan      | BL000001  | Java How To Do Program        |
| LM002  | Abdhul     | Gupta     | BL000002  | Java: The Complete Reference  |
| LM003  | Gayan      | Sharma    | BL000007  | Let Us C                      |
| LM004  | Radha      | Modi      | BL000005  | Java How To Do Program        |
| LM005  | Guru       | Ranka     | BL000008  | Let Us C                      |
| LM005  | Guru       | Ranka     | BL000008  | Let Us C                      |
| LM003  | Gayan      | Sharma    | BL000007  | Let Us C                      |
+--------+------------+-----------+-----------+-------------------------------+
7 rows in set (0.00 sec)
```

select lib_members.id ,lib_members.first_name,lib_members.last_name,lib_book_issue.book_code,lib_book_details.book_title from lib_members join lib_book_issue on lib_book_issue.member_id=lib_members.id join lib_book_details on lib_book_details.book_code=lib_book_issue.book_code;

2)Write a SQL query to display the total books available or which are not issued in the library with the alias name "NO_OF_BOOKS_AVAILABLE".

```
+------------------------------------+
|  NO_OF_BOOKS_AVAILABLE              |
+------------------------------------+
|  Java How To Do Program            |
|  Java: The Complete Reference      |
|  Java: The Complete Reference      |
+------------------------------------+
3 rows in set (0.00 sec)
```

select lib_book_details.Book_Title NO_OF_BOOKS_AVAILABLE from lib_book_details where book_code not in(select book_code from lib_book_issue) group by(lib_book_details.Book_code);

3)Write a SQL query to display the id, first name, last name fine range, and fine amount of the members whose fine amount is less than 100.

select
lib_members.first_name,lib_members.last_name,lib_fine_details.fine_range,lib_fine_details from lib_book_issue

join lib_members

4) Write a SQL query to display the book code, title, publisher, edition, price, and year of publication and sort based on year of publication, publisher, and edition.

```
+-----------+------------------------------+-------------------+--------------+--------+---------------------+
| BOOK_CODE | BOOK_TITLE                   | PUBLICATION       | BOOK_EDITION | PRICE  | YEAR_OF_PUBLICATION |
+-----------+------------------------------+-------------------+--------------+--------+---------------------+
| BL000001  | Java How To Do Program       | Prentice Hall     |            6 | 600.00 |                1999 |
| BL000003  | Java How To Do Program       | Prentice Hall     |            6 | 600.00 |                1999 |
| BL000005  | Java How To Do Program       | Prentice Hall     |            6 | 600.00 |                1999 |
| BL000007  | Let Us C                     | BPB Publications  |            9 | 500.00 |                2010 |
| BL000008  | Let Us C                     | BPB Publications  |            9 | 500.00 |                2010 |
| BL000002  | Java: The Complete Reference | Tata Mcgraw Hill  |            5 | 750.00 |                2011 |
| BL000004  | Java: The Complete Reference | Tata Mcgraw Hill  |            5 | 750.00 |                2011 |
| BL000006  | Java: The Complete Reference | Tata Mcgraw Hill  |            5 | 750.00 |                2011 |
+-----------+------------------------------+-------------------+--------------+--------+---------------------+
8 rows in set (0.00 sec)
```

Select book_code , book_title , publication , Book_Edition price , year (publish_date) as year_of_publication from lib_book_details order by year_of_publication;

5) Write a SQL query to display the book code, title, and rack number of the books which are placed in rack 'A1' and sort by book title in ascending order.

```
mysql> select book_code,book_title,rack_num from lib_book_details where rack_num='A1' order by(book_title) asc;
+-----------+------------------------------+----------+
| book_code | book_title                   | rack_num |
+-----------+------------------------------+----------+
| BL000001  | Java How To Do Program       | A1       |
| BL000003  | Java How To Do Program       | A1       |
| BL000005  | Java How To Do Program       | A1       |
| BL000002  | Java: The Complete Reference | A1       |
| BL000004  | Java: The Complete Reference | A1       |
| BL000006  | Java: The Complete Reference | A1       |
+-----------+------------------------------+----------+
6 rows in set (0.00 sec)
```

select book_code,book_title,rack_num from lib_book_details where rack_num='A1' order by(book_title) asc;

6) Write a SQL query to display the member id, first name, last name, and date of registration who have not taken any book.

select id,first_name,last_name,date_register from lib_members left join lib_book_issue on lib_members.id=lib_book_issue.member_id is null;

```
+--------+------------+-----------+---------------+
| id     | first_name | last_name | date_register |
+--------+------------+-----------+---------------+
| LM001  | Amit       | Khan      | 2012-02-12    |
| LM002  | Abdhul     | Gupta     | 2012-04-10    |
| LM003  | Gayan      | Sharma    | 2012-05-13    |
| LM004  | Radha      | Modi      | 2012-04-22    |
| LM005  | Guru       | Ranka     | 2012-03-30    |
| LM006  | Mohan      | Chaudhari | 2012-04-12    |
+--------+------------+-----------+---------------+
6 rows in set (0.00 sec)
```

7)Write a SQL query to list the book title and supplier id for the books authored by "Herbert Schildt" and the book edition is 5 and supplied by supplier 'S01'.

select book_title, supplier_id from lib_book_details where author="Herbert Schildt" and Book_edition=5 and supplier_id='S01';

```
+------------------------------+-------------+
| book_title                   | supplier_id |
+------------------------------+-------------+
| Java: The Complete Reference | S01         |
+------------------------------+-------------+
1 row in set (0.17 sec)
```

8) Write a SQL query to display the book code, title, and supplier name of the supplier who has supplied the maximum number of books

select book_code,book_title,name from lib_book_details b inner join lib_suppliers_details s on b.supplier_id=s.ID where b.supplier_ID in(SELECT supplier_ID FROM lib_book_details where supplier_id in (select supplier_id from lib_book_details group by(supplier_id) having count(*)>1));

```
+-----------+------------------------------+-------------------+
| book_code | book_title                   | name              |
+-----------+------------------------------+-------------------+
| BL000005  | Java How To Do Program       | SINGAPORE SHOPPEE |
| BL000004  | Java: The Complete Reference | SINGAPORE SHOPPEE |
| BL000003  | Java How To Do Program       | SINGAPORE SHOPPEE |
| BL000001  | Java How To Do Program       | SINGAPORE SHOPPEE |
| BL000007  | Let Us C                     | ROSE BOOK STORE   |
| BL000006  | Java: The Complete Reference | ROSE BOOK STORE   |
| BL000002  | Java: The Complete Reference | ROSE BOOK STORE   |
+-----------+------------------------------+-------------------+
7 rows in set (0.01 sec)
```