**LIBRARY MANAGEMENT SYSTEM**

**IMPLEMENTATION**

In this phase we will create tables based on the design done in the first phase using SQL queries and will write select queries to retrieve information from database based on various criteria.

**Creating Tables**

**Publisher Table:**

>>Create table publisher

(

pub\_id int primary key,

pub\_name varchar(60),

contact\_no int,

address varchar(60)

);

>>insert into publisher values(01,'Rahul',9899675432,'New Delhi');



**Student Table:**

>>create table student

(

student\_id int primary key,

name varchar(60),

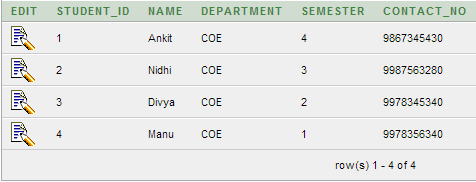
department varchar(60),

semester int,

contact\_no int

);

>>insert into student values('1','Ankit','COE',4,9867345430);



**Books Table:**

>>create table books

(

book\_id char primary key,

pub\_id int,

title varchar(60),

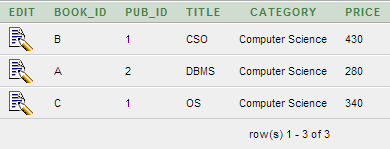
category varchar(60),

price int,

foreign key(pub\_id) references publisher

);

>>insert into book values('B',01,'CSO','Computer Science',430);



**Author Table:**

>>create table author

(

author\_id char primary key,

author\_name varchar(60),

contact\_no int,

address varchar(60)

);

>>insert into author values ('E','Apoorv',9807646363,'New Delhi');



**Issue Table:**

>>create table issue

(

book\_id char,

student\_id int,

issue\_date char(20),

return\_date char(20),

fine int default 0,

remark varchar(30),

primary key(book\_id,student\_id);

foreign key(book\_id) references book,

foreign key(student\_id) references student

);

>>insert into issue values ('B',03,'01/03/13','22/03/13',0,'no binding');



**Writes Table:**

>>create table writes

(

book\_id char,

author\_id char,

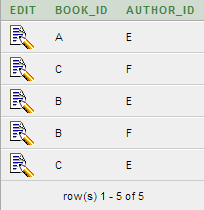
primary key(book\_id,author\_id),

foreign key(author\_id) references author,

foreign key(book\_id) references book

);

>>insert into writes values ('A','E');



**QUERIES**

**Query 1:**

List the details of students who issued the book from library with book\_id='B'.

select s.student\_id,i.issue\_date,i.return\_date

from issue i, student s

where i.book\_id='B'

and s.student\_id=i.student\_id



**Query 2:**

List the books which are available in library.

select b.book\_id,b.title

from book b,issue i

where b.book\_id=i.book\_id

and return\_date is not null



**Query 3:**

List the books which are not available in library(i.e. issued to students),also give detail of students to whom these books have been issued.

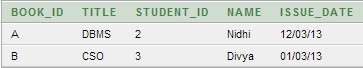
select b.book\_id,b.title,s.student\_id,s.name,i.issue\_date

from book b,issue i,student s

where b.book\_id=i.book\_id

and s.student\_id=i.student\_id

and i.return\_date is not null



**Query 4:**

List the details of the author of the book 'DBMS'.

select a.author\_id,a.author\_name,a.contact\_no

from author a,book b,writes w

where b.title='DBMS'

and a.author\_id=w.author\_id

and b.book\_id=w.book\_id



**Query 5:**

List the details of the books which are currently issued to student with id '3'.

select b.book\_id, b.title, i.issue\_date,remark

from book b,student s,issue i

where i.student\_id=03

and b.book\_id=i.book\_id

and s.student\_id=i.student\_id

and i.return\_date is not null



**Query 6:**

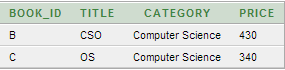
List down the details of the book written by the publisher='Rahul'.

select b.book\_id, b.title, b.category, b.price

from publisher p, book b

where pub\_name='Rahul'

and b.pub\_id=p.pub\_id



**Query 7:**

List the detail of the author of the book='OS'.

select a.author\_id, a.author\_name, a.contact\_no, a.address

from author a, writes w,book b

where b.title='OS'

and b.book\_id=w.book\_id

and a.author\_id=w.author\_id

