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Course- GDSP batch 5

1. Creating databaSe

```
create database library_;
```

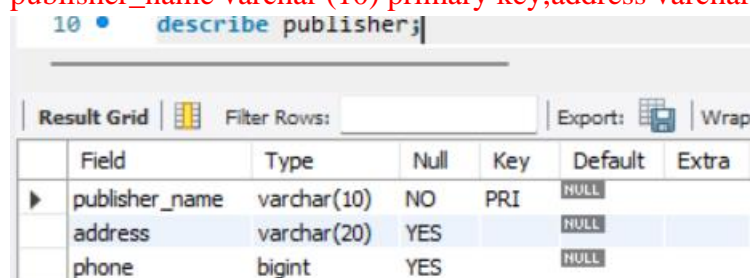
2. Changing the current database

```
Use library_;
```

3. Creating the PUBLISHER table

```
/*creating PUBLISHER table*/
```

```
create table publisher(  
publisher_name varchar (10) primary key,address varchar (20),phone bigint(10));
```



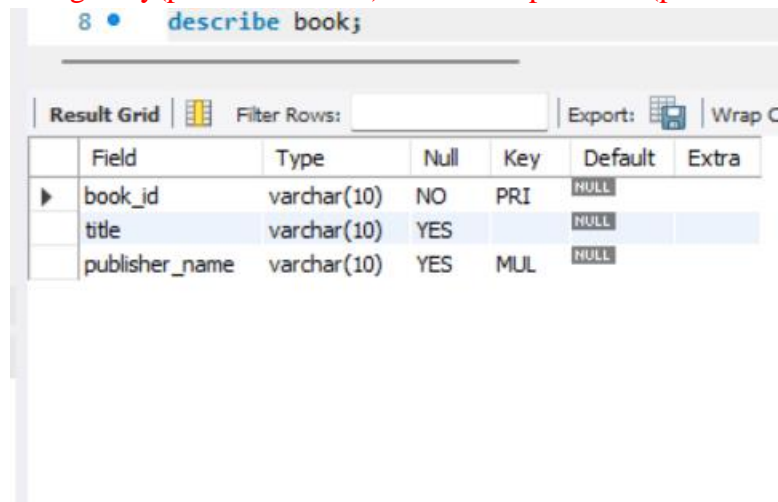
The screenshot shows a SQL command prompt with the command `describe publisher;` and its result grid. The result grid has columns: Field, Type, Null, Key, Default, and Extra. The data is as follows:

| Field          | Type        | Null | Key | Default | Extra |
|----------------|-------------|------|-----|---------|-------|
| publisher_name | varchar(10) | NO   | PRI | NULL    |       |
| address        | varchar(20) | YES  |     | NULL    |       |
| phone          | bigint      | YES  |     | NULL    |       |

4. Creating the BOOK table where foreign key is used once

```
/*creating BOOK table*/
```

```
create table book(  
book_id varchar (10) primary key,title varchar (10),publisher_name varchar (10),  
foreign key(publisher_name) references publisher(publisher_name));
```



The screenshot shows a SQL command prompt with the command `describe book;` and its result grid. The result grid has columns: Field, Type, Null, Key, Default, and Extra. The data is as follows:

| Field          | Type        | Null | Key | Default | Extra |
|----------------|-------------|------|-----|---------|-------|
| book_id        | varchar(10) | NO   | PRI | NULL    |       |
| title          | varchar(10) | YES  |     | NULL    |       |
| publisher_name | varchar(10) | YES  | MUL | NULL    |       |

5. Creating the LIBRARY BRANCH table

```
create table library_branch(  
branch_id varchar (10) primary key,branch_name varchar (10),address varchar (10));
```

11 • describe library\_branch;

| Field       | Type        | Null | Key | Default | Extra |
|-------------|-------------|------|-----|---------|-------|
| branch_id   | varchar(10) | NO   | PRI | NULL    |       |
| branch_name | varchar(10) | YES  |     | NULL    |       |
| address     | varchar(10) | YES  |     | NULL    |       |

6. Creating the BORROWER table

/\*creating BORROWER table\*/

create table borrower(

card\_no varchar (16) primary key,borrower\_name varchar(10),address varchar (20),phone  
bigint(10));

12 • describe borrower;

| Field         | Type        | Null | Key | Default | Extra |
|---------------|-------------|------|-----|---------|-------|
| card_no       | varchar(16) | NO   | PRI | NULL    |       |
| borrower_name | varchar(10) | YES  |     | NULL    |       |
| address       | varchar(20) | YES  |     | NULL    |       |
| phone         | bigint      | YES  |     | NULL    |       |

7. Creating BOOK LOANS table where foreign key is used thrice

/\*creating BOOK\_LOANS table\*/

create table book\_loans(

book\_id varchar (10) primary key,branch\_id varchar (10),card\_no varchar(16),dateout  
date,datein date,

foreign key(book\_id) references book(book\_id),

foreign key(branch\_id) references library\_branch(branch\_id),

foreign key(card\_no) references borrower(card\_no));

13 • describe book\_loans;

| Field     | Type        | Null | Key | Default | Extra |
|-----------|-------------|------|-----|---------|-------|
| book_id   | varchar(10) | NO   | PRI | NULL    |       |
| branch_id | varchar(10) | YES  | MUL | NULL    |       |
| card_no   | varchar(16) | YES  | MUL | NULL    |       |
| dateout   | date        | YES  |     | NULL    |       |
| datein    | date        | YES  |     | NULL    |       |

8. Creating BOOK AUTHOR table where foreign key is used once

/\*creating BOOK\_AUTHOR table\*/

create table book\_author(

book\_id varchar(10) primary key,authername varchar(10),

foreign key(book\_id) references book(book\_id));

9 • describe book\_author;

| Field      | Type        | Null | Key | Default | Extra |
|------------|-------------|------|-----|---------|-------|
| book_id    | varchar(10) | NO   | PRI | NULL    |       |
| authorname | varchar(10) | YES  |     | NULL    |       |

9. Creating BOOK COPIES table where foreign key is used twice

/\*creating BOOK\_COPIES table\*/

```
create table book_copies(
book_id varchar(10) primary key,branch_id varchar (10),no_of_copies bigint(10),
foreign key(book_id) references book(book_id),
foreign key(branch_id) references library_branch(branch_id));
```

14 • describe book\_copies;

| Field        | Type        | Null | Key | Default | Ext |
|--------------|-------------|------|-----|---------|-----|
| book_id      | varchar(10) | NO   | PRI | NULL    |     |
| branch_id    | varchar(10) | YES  | MUL | NULL    |     |
| no_of_copies | bigint      | YES  |     | NULL    |     |

10. Showing all the tables

Show tables;

5 • show tables;

| Tables_in_library_ |
|--------------------|
| book               |
| book_author        |
| book_copies        |
| book_loans         |
| borrower           |
| library_branch     |
| publisher          |