

```
mysql> SHOW DATABASES;
```

Database
collegedatabase
companydatabase
information_schema
moviedatabase
mysql
orderdatabase
performance_schema
sakila
sys
world

```
10 rows in set (0.01 sec)
```

```
mysql> CREATE DATABASE LIBRARYDATABASE;
```

```
Query OK, 1 row affected (0.01 sec)
```

```
mysql> SHOW DATABASES;
```

Database
collegedatabase
companydatabase
information_schema
librarydatabase
moviedatabase
mysql
orderdatabase
performance_schema
sakila
sys
world

```
11 rows in set (0.00 sec)
```

```
mysql> USE LIBRARYDATABASE;
```

```
Database changed
```

```
mysql>
```

```
mysql> CREATE TABLE BOOK
```

```
-> (  
-> BOOK_ID          INT,  
-> TITLE            VARCHAR(20),  
-> PUB_YEAR         VARCHAR(20),  
-> PUBLISHER_NAME   VARCHAR(20),  
-> PRIMARY KEY (BOOK_ID)  
-> );
```

```
Query OK, 0 rows affected (0.05 sec)
```

```
mysql> DESCRIBE BOOK;
```

Field	Type	Null	Key	Default	Extra
BOOK_ID	int	NO	PRI	NULL	
TITLE	varchar(20)	YES		NULL	
PUB_YEAR	varchar(20)	YES		NULL	
PUBLISHER_NAME	varchar(20)	YES		NULL	

```
4 rows in set (0.00 sec)
```

```
mysql> CREATE TABLE AUTHORS
```

```
-> (  
-> AUTHOR_NAME      VARCHAR(20),  
-> BOOK_ID          INT,  
-> PRIMARY KEY (AUTHOR_NAME, BOOK_ID),  
-> FOREIGN KEY (BOOK_ID) REFERENCES BOOK (BOOK_ID) ON DELETE CASCADE  
-> );
```

```
Query OK, 0 rows affected (0.04 sec)
```

```
mysql> DESCRIBE AUTHORS;
```

Field	Type	Null	Key	Default	Extra
AUTHOR_NAME	varchar(20)	NO	PRI	NULL	
BOOK_ID	int	NO	PRI	NULL	

```
2 rows in set (0.00 sec)
```

```
mysql>
```

```
mysql> CREATE TABLE PUBLISHER
```

```
-> (  
-> NAME          VARCHAR(20),  
-> PHONE_NO      INT,  
-> ADDRESS       VARCHAR(20),  
-> PRIMARY KEY (NAME)  
-> );
```

```
Query OK, 0 rows affected (0.06 sec)
```

```
mysql> DESCRIBE PUBLISHER;
```

Field	Type	Null	Key	Default	Extra
NAME	varchar(20)	NO	PRI	NULL	
PHONE_NO	int	YES		NULL	
ADDRESS	varchar(20)	YES		NULL	

```
3 rows in set (0.00 sec)
```

```
mysql> DESCRIBE BOOK;
```

Field	Type	Null	Key	Default	Extra
BOOK_ID	int	NO	PRI	NULL	
TITLE	varchar(20)	YES		NULL	
PUB_YEAR	varchar(20)	YES		NULL	
PUBLISHER_NAME	varchar(20)	YES		NULL	

```
4 rows in set (0.00 sec)
```

```
mysql> ALTER TABLE BOOK ADD FOREIGN KEY (PUBLISHER_NAME) REFERENCES PUBLISHER (NAME);
```

```
Query OK, 0 rows affected (0.07 sec)
```

```
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> DESCRIBE BOOK;
```

Field	Type	Null	Key	Default	Extra
BOOK_ID	int	NO	PRI	NULL	
TITLE	varchar(20)	YES		NULL	
PUB_YEAR	varchar(20)	YES		NULL	
PUBLISHER_NAME	varchar(20)	YES	MUL	NULL	

```
4 rows in set (0.00 sec)
```

```
mysql>
```

```
mysql> CREATE TABLE BOOK_COPIES
-> (
-> NO_OF_COPIES          INT,
-> BOOK_ID               INT,
-> PROGRAMME_ID          INT,
-> PRIMARY KEY (BOOK_ID, PROGRAMME_ID),
-> FOREIGN KEY (BOOK_ID) REFERENCES BOOK (BOOK_ID) ON DELETE CASCADE
-> );
```

Query OK, 0 rows affected (0.03 sec)

```
mysql> DESCRIBE BOOK_COPIES;
```

Field	Type	Null	Key	Default	Extra
NO_OF_COPIES	int	YES		NULL	
BOOK_ID	int	NO	PRI	NULL	
PROGRAMME_ID	int	NO	PRI	NULL	

3 rows in set (0.00 sec)

```
mysql> CREATE TABLE BOOK_LENDING
```

```
-> (
-> DATE_OUT              DATE,
-> DUE_DATE              DATE,
-> BOOK_ID               INT,
-> PROGRAMME_ID          INT,
-> CARD_NO               INT,
-> PRIMARY KEY (BOOK_ID, PROGRAMME_ID, CARD_NO),
-> FOREIGN KEY (BOOK_ID) REFERENCES BOOK (BOOK_ID) ON DELETE CASCADE
-> );
```

Query OK, 0 rows affected (0.07 sec)

```
mysql> DESCRIBE BOOK_LENDING;
```

Field	Type	Null	Key	Default	Extra
DATE_OUT	date	YES		NULL	
DUE_DATE	date	YES		NULL	
BOOK_ID	int	NO	PRI	NULL	
PROGRAMME_ID	int	NO	PRI	NULL	
CARD_NO	int	NO	PRI	NULL	

5 rows in set (0.00 sec)

```
mysql>
```

```
mysql> CREATE TABLE CARD
-> (
-> CARD_NO INT,
-> PRIMARY KEY (CARD_NO)
-> );
```

Query OK, 0 rows affected (0.04 sec)

```
mysql> DESCRIBE CARD;
```

Field	Type	Null	Key	Default	Extra
CARD_NO	int	NO	PRI	NULL	

1 row in set (0.00 sec)

```
mysql> CREATE TABLE LIBRARY_PROGRAMME
-> (
-> PROGRAMME_ID INT,
-> PROGRAMME_NAME VARCHAR(20),
-> ADDRESS VARCHAR(20),
-> PRIMARY KEY (PROGRAMME_ID)
-> );
```

Query OK, 0 rows affected (0.03 sec)

```
mysql> DESCRIBE LIBRARY_PROGRAMME;
```

Field	Type	Null	Key	Default	Extra
PROGRAMME_ID	int	NO	PRI	NULL	
PROGRAMME_NAME	varchar(20)	YES		NULL	
ADDRESS	varchar(20)	YES		NULL	

3 rows in set (0.01 sec)

```
mysql>
```

```
mysql> DESCRIBE BOOK_COPIES;
```

Field	Type	Null	Key	Default	Extra
NO_OF_COPIES	int	YES		NULL	
BOOK_ID	int	NO	PRI	NULL	
PROGRAMME_ID	int	NO	PRI	NULL	

```
3 rows in set (0.00 sec)
```

```
mysql> ALTER TABLE BOOK_COPIES ADD FOREIGN KEY (PROGRAMME_ID) REFERENCES LIBRARY_PROGRAMME (PROGRAMME_ID) ON DELETE CASCADE;
```

```
Query OK, 0 rows affected (0.10 sec)
```

```
Records: 0  Duplicates: 0  Warnings: 0
```

```
mysql>
```

```
mysql> DESCRIBE BOOK_LENDING;
```

Field	Type	Null	Key	Default	Extra
DATE_OUT	date	YES		NULL	
DUE_DATE	date	YES		NULL	
BOOK_ID	int	NO	PRI	NULL	
PROGRAMME_ID	int	NO	PRI	NULL	
CARD_NO	int	NO	PRI	NULL	

```
5 rows in set (0.00 sec)
```

```
mysql> ALTER TABLE BOOK_LENDING ADD FOREIGN KEY (PROGRAMME_ID) REFERENCES LIBRARY_PROGRAMME (PROGRAMME_ID) ON DELETE CASCADE;
```

```
Query OK, 0 rows affected (0.09 sec)
```

```
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> ALTER TABLE BOOK_LENDING ADD FOREIGN KEY (CARD_NO) REFERENCES CARD (CARD_NO) ON DELETE CASCADE;
```

```
Query OK, 0 rows affected (0.08 sec)
```

```
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> DESCRIBE BOOK_LENDING;
```

Field	Type	Null	Key	Default	Extra
DATE_OUT	date	YES		NULL	
DUE_DATE	date	YES		NULL	
BOOK_ID	int	NO	PRI	NULL	
PROGRAMME_ID	int	NO	PRI	NULL	
CARD_NO	int	NO	PRI	NULL	

```
5 rows in set (0.00 sec)
```

```
mysql>
```

```
mysql> INSERT INTO BOOK VALUES
-> ('1','DBMS','JAN-2017',NULL);
Query OK, 1 row affected (0.01 sec)
```

```
mysql> INSERT INTO BOOK VALUES
-> ('2','ADBMS','JUN-2016',NULL);
Query OK, 1 row affected (0.00 sec)
```

```
mysql> INSERT INTO BOOK VALUES
-> ('3','CD','SEP-2016',NULL);
Query OK, 1 row affected (0.01 sec)
```

```
mysql> INSERT INTO BOOK VALUES
-> ('4','ALGORITHMS','SEP-2015',NULL);
Query OK, 1 row affected (0.01 sec)
```

```
mysql> INSERT INTO BOOK VALUES
-> ('5','OS','MAY-2016',NULL);
Query OK, 1 row affected (0.00 sec)
```

```
mysql> SELECT * FROM BOOK;
```

BOOK_ID	TITLE	PUB_YEAR	PUBLISHER_NAME
1	DBMS	JAN-2017	NUL
2	ADBMS	JUN-2016	NUL
3	CD	SEP-2016	NUL
4	ALGORITHMS	SEP-2015	NUL
5	OS	MAY-2016	NUL

```
5 rows in set (0.00 sec)
```

```
mysql>
```



```
mysql> INSERT INTO AUTHORS VALUES  
-> ('NAVATHE', '1');  
Query OK, 1 row affected (0.01 sec)
```

```
mysql> INSERT INTO AUTHORS VALUES  
-> ('NAVATHE', '2');  
Query OK, 1 row affected (0.01 sec)
```

```
mysql> INSERT INTO AUTHORS VALUES  
-> ('ULLMAN', '3');  
Query OK, 1 row affected (0.01 sec)
```

```
mysql> INSERT INTO AUTHORS VALUES  
-> ('CHARLES', '4');  
Query OK, 1 row affected (0.01 sec)
```

```
mysql> INSERT INTO AUTHORS VALUES  
-> ('GALVIN', '5');  
Query OK, 1 row affected (0.01 sec)
```

```
mysql> SELECT * FROM AUTHORS;
```

AUTHOR_NAME	BOOK_ID
NAVATHE	1
NAVATHE	2
ULLMAN	3
CHARLES	4
GALVIN	5

```
5 rows in set (0.00 sec)
```

```
mysql>
```

```
mysql> INSERT INTO PUBLISHER VALUES
-> ('MCGRAW-HILL', '99890','BANGALORE');
Query OK, 1 row affected (0.01 sec)
```

```
mysql> INSERT INTO PUBLISHER VALUES
-> ('PEARSON', '98890','NEWDELHI');
Query OK, 1 row affected (0.01 sec)
```

```
mysql> INSERT INTO PUBLISHER VALUES
-> ('PRENTICE HALL', '74556','HYDRABAD');
Query OK, 1 row affected (0.00 sec)
```

```
mysql> INSERT INTO PUBLISHER VALUES
-> ('WILEY', '89708','CHENNAI');
Query OK, 1 row affected (0.01 sec)
```

```
mysql> INSERT INTO PUBLISHER VALUES
-> ('MIT', '77561','BANGALORE');
Query OK, 1 row affected (0.00 sec)
```

```
mysql> SELECT * FROM PUBLISHER;
```

NAME	PHONE_NO	ADDRESS
MCGRAW-HILL	99890	BANGALORE
MIT	77561	BANGALORE
PEARSON	98890	NEWDELHI
PRENTICE HALL	74556	HYDRABAD
WILEY	89708	CHENNAI

```
5 rows in set (0.00 sec)
```

```
mysql>
```

```
mysql> INSERT INTO LIBRARY_PROGRAMME VALUES
-> ('10','VIJAY NAGAR','MYSURU');
Query OK, 1 row affected (0.01 sec)
```

```
mysql> INSERT INTO LIBRARY_PROGRAMME VALUES
-> ('11','VIDYANAGAR','HUBLI');
Query OK, 1 row affected (0.00 sec)
```

```
mysql> INSERT INTO LIBRARY_PROGRAMME VALUES
-> ('12','KUVEMPUNAGAR','MYSURU');
Query OK, 1 row affected (0.00 sec)
```

```
mysql> INSERT INTO LIBRARY_PROGRAMME VALUES
-> ('13','RAJAJINAGAR','BANGALORE');
Query OK, 1 row affected (0.00 sec)
```

```
mysql> INSERT INTO LIBRARY_PROGRAMME VALUES
-> ('14','MANIPAL','UDUPI');
Query OK, 1 row affected (0.00 sec)
```

```
mysql> SELECT * FROM LIBRARY_PROGRAMME;
```

PROGRAMME_ID	PROGRAMME_NAME	ADDRESS
10	VIJAY NAGAR	MYSURU
11	VIDYANAGAR	HUBLI
12	KUVEMPUNAGAR	MYSURU
13	RAJAJINAGAR	BANGALORE
14	MANIPAL	UDUPI

```
5 rows in set (0.00 sec)
```

```
mysql>
```

```
mysql> INSERT INTO BOOK_COPIES VALUES
-> ('10', '1', '10');
Query OK, 1 row affected (0.01 sec)
```

```
mysql> INSERT INTO BOOK_COPIES VALUES
-> ('5', '1', '11');
Query OK, 1 row affected (0.00 sec)
```

```
mysql> INSERT INTO BOOK_COPIES VALUES
-> ('2', '2', '12');
Query OK, 1 row affected (0.00 sec)
```

```
mysql> INSERT INTO BOOK_COPIES VALUES
-> ('5', '2', '13');
Query OK, 1 row affected (0.00 sec)
```

```
mysql> INSERT INTO BOOK_COPIES VALUES
-> ('7', '3', '14');
Query OK, 1 row affected (0.01 sec)
```

```
mysql> INSERT INTO BOOK_COPIES VALUES
-> ('1', '5', '10');
Query OK, 1 row affected (0.00 sec)
```

```
mysql> INSERT INTO BOOK_COPIES VALUES
-> ('3', '4', '11');
Query OK, 1 row affected (0.00 sec)
```

```
mysql> SELECT * FROM BOOK_COPIES;
+-----+-----+-----+
| NO_OF_COPIES | BOOK_ID | PROGRAMME_ID |
+-----+-----+-----+
|          10 |        1 |             10 |
|           5 |        1 |             11 |
|           2 |        2 |             12 |
|           5 |        2 |             13 |
|           7 |        3 |             14 |
|           3 |        4 |             11 |
|           1 |        5 |             10 |
+-----+-----+-----+
7 rows in set (0.00 sec)
```

```
mysql>
```

```
mysql> INSERT INTO CARD VALUES  
-> ('100');  
Query OK, 1 row affected (0.01 sec)
```

```
mysql> INSERT INTO CARD VALUES  
-> ('101');  
Query OK, 1 row affected (0.00 sec)
```

```
mysql> INSERT INTO CARD VALUES  
-> ('102');  
Query OK, 1 row affected (0.01 sec)
```

```
mysql> INSERT INTO CARD VALUES  
-> ('103');  
Query OK, 1 row affected (0.01 sec)
```

```
mysql> INSERT INTO CARD VALUES  
-> ('104');  
Query OK, 1 row affected (0.01 sec)
```

```
mysql> SELECT * FROM CARD;
```

CARD_NO
100
101
102
103
104

```
5 rows in set (0.00 sec)
```

```
mysql>
```

```
mysql> INSERT INTO BOOK_LENDING VALUES
-> ('2017-01-01','2017-06-01', '1', '10', '101');
Query OK, 1 row affected (0.01 sec)
```

```
mysql> INSERT INTO BOOK_LENDING VALUES
-> ('2017-01-11 ', '2017-03-11', '3', '14', '101');
Query OK, 1 row affected (0.01 sec)
```

```
mysql> INSERT INTO BOOK_LENDING VALUES
-> ('2017-02-21','2017-04-21', '2', '13', '101');
Query OK, 1 row affected (0.00 sec)
```

```
mysql> INSERT INTO BOOK_LENDING VALUES
-> ('2017-03-15 ', '2017-07-15', '4', '11', '101');
Query OK, 1 row affected (0.00 sec)
```

```
mysql> INSERT INTO BOOK_LENDING VALUES
-> ('2017-04-12','2017-05-12', '1', '11', '104');
Query OK, 1 row affected (0.00 sec)
```

```
mysql> SELECT * FROM BOOK_LENDING;
```

DATE_OUT	DUE_DATE	BOOK_ID	PROGRAMME_ID	CARD_NO
2017-01-01	2017-06-01	1	10	101
2017-04-12	2017-05-12	1	11	104
2017-02-21	2017-04-21	2	13	101
2017-01-11	2017-03-11	3	14	101
2017-03-15	2017-07-15	4	11	101

```
5 rows in set (0.00 sec)
```

```
mysql>
```

```
mysql> SELECT * FROM BOOK;
```

BOOK_ID	TITLE	PUB_YEAR	PUBLISHER_NAME
1	DBMS	JAN-2017	NULL
2	ADBMS	JUN-2016	NULL
3	CD	SEP-2016	NULL
4	ALGORITHMS	SEP-2015	NULL
5	OS	MAY-2016	NULL

```
5 rows in set (0.00 sec)
```

```
mysql> UPDATE BOOK
```

```
-> SET PUBLISHER_NAME = 'MCGRAW-HILL'
```

```
-> WHERE BOOK_ID = '1';
```

```
Query OK, 1 row affected (0.01 sec)
```

```
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> UPDATE BOOK
```

```
-> SET PUBLISHER_NAME = 'MCGRAW-HILL'
```

```
-> WHERE BOOK_ID = '2';
```

```
Query OK, 1 row affected (0.00 sec)
```

```
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> UPDATE BOOK
```

```
-> SET PUBLISHER_NAME = 'PEARSON'
```

```
-> WHERE BOOK_ID = '3';
```

```
Query OK, 1 row affected (0.00 sec)
```

```
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> UPDATE BOOK
```

```
-> SET PUBLISHER_NAME = 'MIT'
```

```
-> WHERE BOOK_ID = '4';
```

```
Query OK, 1 row affected (0.00 sec)
```

```
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> UPDATE BOOK
```

```
-> SET PUBLISHER_NAME = 'PEARSON'
```

```
-> WHERE BOOK_ID = '5';
```

```
Query OK, 1 row affected (0.01 sec)
```

```
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql>
```

```
mysql> DESCRIBE BOOK;
```

Field	Type	Null	Key	Default	Extra
BOOK_ID	int	NO	PRI	NULL	
TITLE	varchar(20)	YES		NULL	
PUB_YEAR	varchar(20)	YES		NULL	
PUBLISHER_NAME	varchar(20)	YES	MUL	NULL	

4 rows in set (0.00 sec)

```
mysql> SELECT * FROM BOOK;
```

BOOK_ID	TITLE	PUB_YEAR	PUBLISHER_NAME
1	DBMS	JAN-2017	MCGRAW-HILL
2	ADBMS	JUN-2016	MCGRAW-HILL
3	CD	SEP-2016	PEARSON
4	ALGORITHMS	SEP-2015	MIT
5	OS	MAY-2016	PEARSON

5 rows in set (0.00 sec)

```
mysql> DESCRIBE AUTHORS;
```

Field	Type	Null	Key	Default	Extra
AUTHOR_NAME	varchar(20)	NO	PRI	NULL	
BOOK_ID	int	NO	PRI	NULL	

2 rows in set (0.00 sec)

```
mysql> SELECT * FROM AUTHORS;
```

AUTHOR_NAME	BOOK_ID
NAVATHE	1
NAVATHE	2
ULLMAN	3
CHARLES	4
GALVIN	5

5 rows in set (0.00 sec)

```
mysql>
```



```
mysql> DESCRIBE PUBLISHER;
```

Field	Type	Null	Key	Default	Extra
NAME	varchar(20)	NO	PRI	NULL	
PHONE_NO	int	YES		NULL	
ADDRESS	varchar(20)	YES		NULL	

3 rows in set (0.00 sec)

```
mysql> SELECT * FROM PUBLISHER;
```

NAME	PHONE_NO	ADDRESS
MCGRRAW-HILL	99890	BANGALORE
MIT	77561	BANGALORE
PEARSON	98890	NEWDELHI
PRENTICE HALL	74556	HYEDRABAD
WILEY	89708	CHENNAI

5 rows in set (0.00 sec)

```
mysql> DESCRIBE BOOK_COPIES;
```

Field	Type	Null	Key	Default	Extra
NO_OF_COPIES	int	YES		NULL	
BOOK_ID	int	NO	PRI	NULL	
PROGRAMME_ID	int	NO	PRI	NULL	

3 rows in set (0.00 sec)

```
mysql> SELECT * FROM BOOK_COPIES;
```

NO_OF_COPIES	BOOK_ID	PROGRAMME_ID
10	1	10
5	1	11
2	2	12
5	2	13
7	3	14
3	4	11
1	5	10

7 rows in set (0.00 sec)

```
mysql>
```

```
mysql> DESCRIBE CARD;
```

Field	Type	Null	Key	Default	Extra
CARD_NO	int	NO	PRI	NULL	

```
1 row in set (0.00 sec)
```

```
mysql> SELECT * FROM CARD;
```

CARD_NO
100
101
102
103
104

```
5 rows in set (0.00 sec)
```

```
mysql> DESCRIBE LIBRARY_PROGRAMME;
```

Field	Type	Null	Key	Default	Extra
PROGRAMME_ID	int	NO	PRI	NULL	
PROGRAMME_NAME	varchar(20)	YES		NULL	
ADDRESS	varchar(20)	YES		NULL	

```
3 rows in set (0.00 sec)
```

```
mysql> SELECT * FROM LIBRARY_PROGRAMME;
```

PROGRAMME_ID	PROGRAMME_NAME	ADDRESS
10	VIJAY NAGAR	MYSURU
11	VIDYANAGAR	HUBLI
12	KUVEMPUNAGAR	MYSURU
13	RAJAJINAGAR	BANGALORE
14	MANIPAL	UDUPI

```
5 rows in set (0.00 sec)
```

```
mysql>
```

```
mysql> SELECT * FROM BOOK;
```

BOOK_ID	TITLE	PUB_YEAR	PUBLISHER_NAME
1	DBMS	JAN-2017	MCGRAW-HILL
2	ADBMS	JUN-2016	MCGRAW-HILL
3	CD	SEP-2016	PEARSON
4	ALGORITHMS	SEP-2015	MIT
5	OS	MAY-2016	PEARSON

5 rows in set (0.00 sec)

```
mysql> SELECT A.AUTHOR_NAME, B.BOOK_ID, B.PUBLISHER_NAME, B.TITLE, C.NO_OF_COPIES, L.PROGRAMME_ID  
-> FROM AUTHORS AS A, BOOK AS B, BOOK_COPIES AS C, LIBRARY_PROGRAMME AS L  
-> WHERE B.BOOK_ID = A.BOOK_ID AND B.BOOK_ID = C.BOOK_ID AND C.PROGRAMME_ID = L.PROGRAMME_ID;
```

AUTHOR_NAME	BOOK_ID	PUBLISHER_NAME	TITLE	NO_OF_COPIES	PROGRAMME_ID
NAVATHE	1	MCGRAW-HILL	DBMS	10	10
GALVIN	5	PEARSON	OS	1	10
NAVATHE	1	MCGRAW-HILL	DBMS	5	11
CHARLES	4	MIT	ALGORITHMS	3	11
NAVATHE	2	MCGRAW-HILL	ADBMS	2	12
NAVATHE	2	MCGRAW-HILL	ADBMS	5	13
ULLMAN	3	PEARSON	CD	7	14

7 rows in set (0.00 sec)

```
mysql>
```

```
mysql> SELECT * FROM BOOK_LENDING;
```

DATE_OUT	DUE_DATE	BOOK_ID	PROGRAMME_ID	CARD_NO
2017-01-01	2017-06-01	1	10	101
2017-04-12	2017-05-12	1	11	104
2017-02-21	2017-04-21	2	13	101
2017-01-11	2017-03-11	3	14	101
2017-03-15	2017-07-15	4	11	101

```
5 rows in set (0.00 sec)
```

```
mysql> SELECT * FROM CARD;
```

CARD_NO
100
101
102
103
104

```
5 rows in set (0.00 sec)
```

```
mysql> SELECT CARD_NO  
-> FROM BOOK_LENDING  
-> WHERE DATE_OUT BETWEEN '2017-01-01' AND '2017-07-01'  
-> GROUP BY CARD_NO  
-> HAVING COUNT(*) > 3;
```

CARD_NO
101

```
1 row in set (0.00 sec)
```

```
mysql>
```

```
mysql> SELECT * FROM BOOK;
```

BOOK_ID	TITLE	PUB_YEAR	PUBLISHER_NAME
1	DBMS	JAN-2017	MCGRAW-HILL
2	ADBMS	JUN-2016	MCGRAW-HILL
3	CD	SEP-2016	PEARSON
4	ALGORITHMS	SEP-2015	MIT
5	OS	MAY-2016	PEARSON

```
5 rows in set (0.00 sec)
```

```
mysql> SELECT * FROM PUBLISHER;
```

NAME	PHONE_NO	ADDRESS
MCGRAW-HILL	99890	BANGALORE
MIT	77561	BANGALORE
PEARSON	98890	NEWDELHI
PRENTICE HALL	74556	HYDRABAD
WILEY	89708	CHENNAI

```
5 rows in set (0.00 sec)
```

```
mysql> DELETE FROM BOOK WHERE BOOK_ID=3;
```

```
Query OK, 1 row affected (0.01 sec)
```

```
mysql> SELECT * FROM BOOK;
```

BOOK_ID	TITLE	PUB_YEAR	PUBLISHER_NAME
1	DBMS	JAN-2017	MCGRAW-HILL
2	ADBMS	JUN-2016	MCGRAW-HILL
4	ALGORITHMS	SEP-2015	MIT
5	OS	MAY-2016	PEARSON

```
4 rows in set (0.00 sec)
```

```
mysql> SELECT * FROM PUBLISHER;
```

NAME	PHONE_NO	ADDRESS
MCGRAW-HILL	99890	BANGALORE
MIT	77561	BANGALORE
PEARSON	98890	NEWDELHI
PRENTICE HALL	74556	HYDRABAD
WILEY	89708	CHENNAI

```
5 rows in set (0.00 sec)
```

```
mysql> SELECT * FROM BOOK;
```

BOOK_ID	TITLE	PUB_YEAR	PUBLISHER_NAME
1	DBMS	JAN-2017	MCGRRAW-HILL
2	ADBMS	JUN-2016	MCGRRAW-HILL
4	ALGORITHMS	SEP-2015	MIT
5	OS	MAY-2016	PEARSON

```
4 rows in set (0.00 sec)
```

```
mysql> CREATE VIEW VW_PUBLICATION AS  
-> SELECT PUB_YEAR  
-> FROM BOOK;
```

```
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> SELECT * FROM VW_PUBLICATION;
```

PUB_YEAR
JAN-2017
JUN-2016
SEP-2015
MAY-2016

```
4 rows in set (0.00 sec)
```

```
mysql>
```

```
mysql> SELECT * FROM BOOK;
```

BOOK_ID	TITLE	PUB_YEAR	PUBLISHER_NAME
1	DBMS	JAN-2017	MCGRRAW-HILL
2	ADBMS	JUN-2016	MCGRRAW-HILL
4	ALGORITHMS	SEP-2015	MIT
5	OS	MAY-2016	PEARSON

4 rows in set (0.00 sec)

```
mysql> SELECT * FROM BOOK_COPIES;
```

NO_OF_COPIES	BOOK_ID	PROGRAMME_ID
10	1	10
5	1	11
2	2	12
5	2	13
3	4	11
1	5	10

6 rows in set (0.00 sec)

```
mysql> CREATE VIEW VW_BOOKS AS
```

```
-> SELECT B.BOOK_ID, B.TITLE, C.NO_OF_COPIES
```

```
-> FROM BOOK AS B, BOOK_COPIES AS C, LIBRARY_PROGRAMME AS L
```

```
-> WHERE B.BOOK_ID = C.BOOK_ID AND C.PROGRAMME_ID = L.PROGRAMME_ID;
```

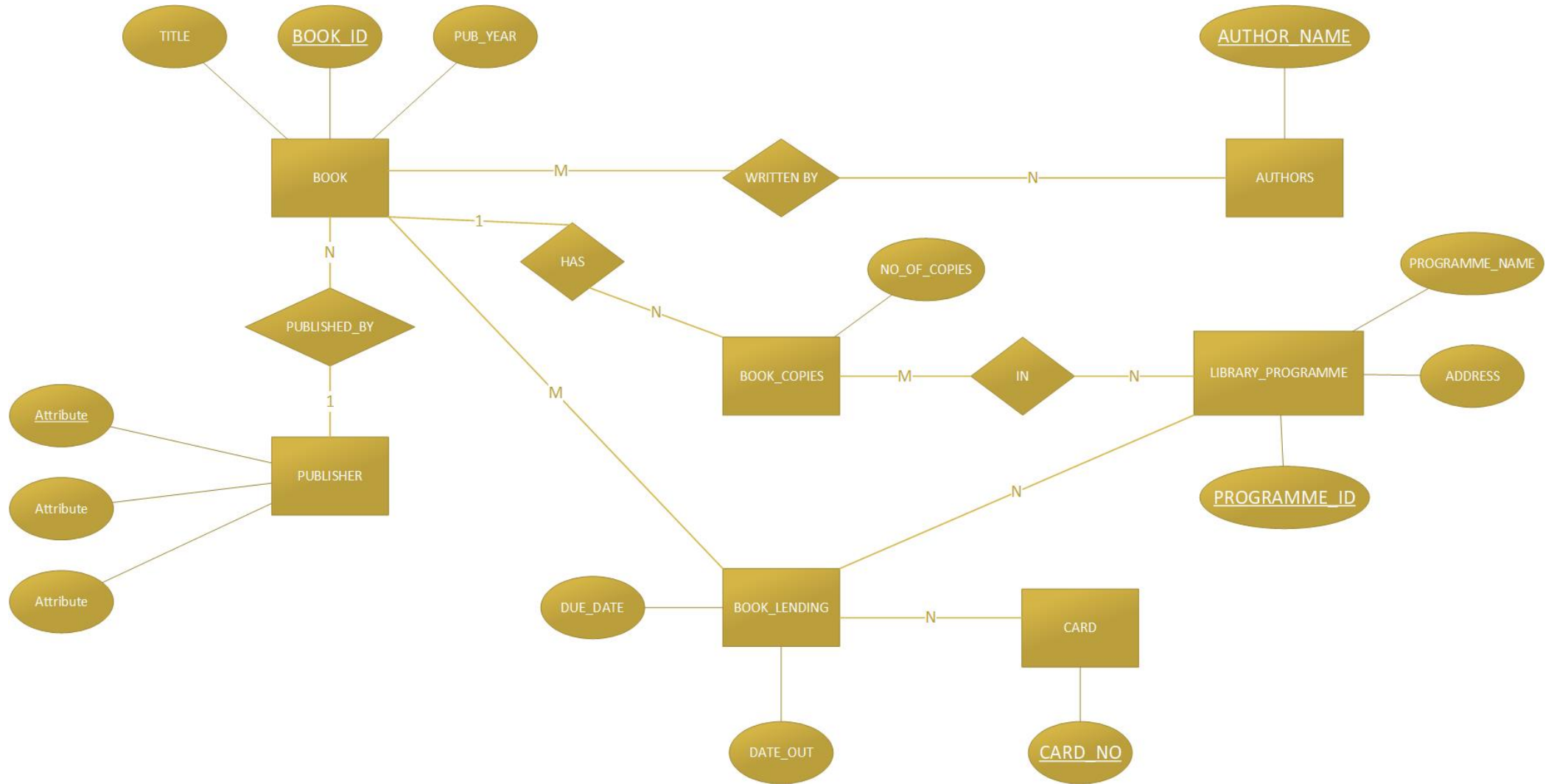
Query OK, 0 rows affected (0.02 sec)

```
mysql> SELECT * FROM VW_BOOKS;
```

BOOK_ID	TITLE	NO_OF_COPIES
1	DBMS	10
5	OS	1
1	DBMS	5
4	ALGORITHMS	3
2	ADBMS	2
2	ADBMS	5

6 rows in set (0.00 sec)

```
mysql>
```





BOOK

BOOK_ID	TITLE	PUB_YEAR	PUBLISHER_NAME
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AUTHORS

BOOK_ID	AUTHOR_NAME
---------	-------------

PUBLISHER

NAME	PHONE	ADDRESS
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BOOK\_COPIES

BOOK_ID	PROGRAMME_ID	NO_OF_COPIES
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BOOK\_LENDING

BOOK_ID	PROGRAMME_ID	CARD_NO	DATE_OUT	DUE_DATE
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LIBRARY\_PROGRAMME

PROGRAMME_ID	PROGRAMME_NAME	ADDRESS
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