

DBMS LAB – 2

1.

```
CREATE TABLE AUTHOR(author_id INT,name VARCHAR(20),city
VARCHAR(20),country VARCHAR(20));
CREATE TABLE PUBLISHER(publisher_id INT,name
VARCHAR(20),city VARCHAR(20),country VARCHAR(20));
CREATE TABLE CATALOG(book_id INT,author_id INT,publisher_id
INT,category_id INT,year INT,price INT);
CREATE TABLE CATEGORY(category_id INT,DESCRIPTION
varchar(20));
CREATE TABLE ORDER_DETAILS(order_no INT,book_id INT,quantity
INT);
```

```
ALTER TABLE PUBLISHER ADD PRIMARY KEY(publisher_id);
ALTER TABLE CATALOG ADD PRIMARY
KEY(book_id,author_id,publisher_id,category_id);
ALTER TABLE CATEGORY ADD PRIMARY KEY(category_id);
ALTER TABLE ORDER_DETAILS ADD PRIMARY
KEY(order_no,book_id);
```

DESC AUTHOR;

```
+-----+-----+-----+-----+-----+-----+
| Field  | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| author_id | int       | NO   | PRI | NULL    |      |
| name      | varchar(20) | YES  |     | NULL    |      |
| city      | varchar(20) | YES  |     | NULL    |      |
| country   | varchar(20) | YES  |     | NULL    |      |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)
```

mysql> DESC PUBLISHER;

Field	Type	Null	Key	Default	Extra
publisher_id	int	NO	PRI	NULL	
name	varchar(20)	YES		NULL	
city	varchar(20)	YES		NULL	
country	varchar(20)	YES		NULL	

4 rows in set (0.00 sec)

mysql> DESC CATALOG;

Field	Type	Null	Key	Default	Extra
book_id	int	NO	PRI	NULL	
author_id	int	NO	PRI	NULL	
publisher_id	int	NO	PRI	NULL	
category_id	int	NO	PRI	NULL	
year	int	YES		NULL	
price	int	YES		NULL	

6 rows in set (0.00 sec)

mysql> DESC ORDER_DETAILS;

Field	Type	Null	Key	Default	Extra
order_no	int	NO	PRI	NULL	
book_id	int	NO	PRI	NULL	
quantity	int	YES		NULL	

```
INSERT INTO PUBLISHER VALUES(1,'Sanjiv','Trichy','India'),
(2,'Soma','Trichy','India'),(3,'srivinesh','Trichy','India'),
(4,'Mano','Trichy','India'),(5,'Nitin','Trichy','India')
-> ;
```

```
INSERT INTO CATALOG VALUES(1,1,1,1,2023,7200,'SQL'),
(2,2,2,2,2023,5200,'C++', 'Cotlin');
```

```
INSERT INTO CATEGORY VALUES(1,'V Good'),(2,'V Good'),
(3,'Excellent'),(4,'Good');
```

```
INSERT INTO ORDER_DETAILS VALUES(1,1,200),(2,2,230),(3,3,300),
(4,4,210),(5,5,100);
```

```
SELECT COUNT(author_id) FROM AUTHOR;
```

```
+-----+
| COUNT(author_id) |
+-----+
|          5      |
+-----+
```

2.

```
CREATE TABLE Book(Acc_no INT,Yr_pib INT,title VARCHAR(20));
DESC Book;
```

```
+-----+-----+-----+-----+-----+-----+
| Field | Type   | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Acc_no | int    | YES  |     | NULL    |       |
| Yr_pib | int    | YES  |     | NULL    |       |
| title  | varchar(20) | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
```

```
INSERT INTO Book VALUES(734216,1982,'Algorithm design'),
(237235,1995,'Database systems'),(631523,1992,'Compiler design'),
(543211,1991,'programming'),(376112,1992,'Machine design');
```

```
SELECT * FROM Book;
```

```
+-----+-----+-----+
| Acc_no | Yr_pib | title          |
+-----+-----+-----+
| 237235 | 1995   | Database systems |
| 376112 | 1992   | Machine design  |
| 543211 | 1991   | programming      |
| 631523 | 1992   | Compiler design  |
| 734216 | 1982   | Algorithm design |
+-----+-----+-----+
5 rows in set (0.00 sec)
```

```
SELECT title,Acc_no FROM Book;
```

```
+-----+-----+
| title          | Acc_no |
+-----+-----+
| Database systems | 237235 |
| Machine design  | 376112 |
| programming     | 543211 |
| Compiler design  | 631523 |
| Algorithm design | 734216 |
+-----+-----+
```

```
SELECT * FROM Book WHERE Yr_pib =1992;
```

```
+-----+-----+-----+
| Acc_no | Yr_pib | title          |
+-----+-----+-----+
| 376112 | 1992   | Machine design |
| 631523 | 1992   | Compiler design |
+-----+-----+-----+
```

```
SELECT * FROM Book WHERE Acc_no>=56782;
```

```
+-----+-----+-----+
| Acc_no | Yr_pib | title          |
+-----+-----+-----+
| 237235 | 1995   | Database systems |
| 376112 | 1992   | Machine design  |
| 543211 | 1991   | programming      |
| 631523 | 1992   | Compiler design  |
| 734216 | 1982   | Algorithm design |
+-----+-----+-----+
```

```
SELECT Acc_no AS SERIAL_NO
-> FROM Book;
```

```
+-----+
| SERIAL_NO |
+-----+
| 237235 |
| 376112 |
| 543211 |
| 631523 |
| 734216 |
+-----+
```

```
SELECT Yr_pib AS YEAR FROM Book;
```

```
+-----+
| YEAR |
+-----+
| 1995 |
| 1992 |
| 1991 |
| 1992 |
| 1982 |
+-----+
```

3.

```
CREATE TABLE branch(branch_name VARCHAR(20),branch_city  
VARCHAR(20),assets VARCHAR(20));
```

```
CREATE TABLE customer(customer_name  
VARCHAR(20),customer_city VARCHAR(20),customer_street  
VARCHAR(20));
```

Query OK, 0 rows affected (0.04 sec)

```
mysql> CREATE TABLE account(account_number INT,branch_name  
VARCHAR(20),balance INT);
```

Query OK, 0 rows affected (0.04 sec)

```
mysql> CREATE TABLE loan(loan_number INT,branch_name  
VARCHAR(20),amount INT);
```

Query OK, 0 rows affected (0.03 sec)

```
mysql> DROP TABLE loan;
```

Query OK, 0 rows affected (0.03 sec)

```
mysql> CREATE TABLE loan(loan_number INT,branch_name  
VARCHAR(20),amount INT);
```

Query OK, 0 rows affected (0.04 sec)

```
mysql> CREATE TABLE depositor(customer_name  
VARCHAR(20),account_number INT);
```

Query OK, 0 rows affected (0.03 sec)

```
mysql> CREATE TABLE borrower(customer_name  
VARCHAR(20),loan_number INT);
```

Query OK, 0 rows affected (0.03 sec)

```
mysql> SELECT title,Acc_no FROM Book;
```

```
+-----+-----+
| title          | Acc_no |
+-----+-----+
| Database systems | 237235 |
| Machine design  | 376112 |
| programming     | 543211 |
| Compiler design | 631523 |
| Algorithm design | 734216 |
+-----+-----+
```

5 rows in set (0.00 sec)

```
mysql> SELECT * FROM Book WHERE Yr_pib =1992;
```

```
+-----+-----+-----+
| Acc_no | Yr_pib | title          |
+-----+-----+-----+
| 376112 | 1992   | Machine design |
| 631523 | 1992   | Compiler design |
+-----+-----+-----+
```

2 rows in set (0.00 sec)

```
mysql> SELECT * FROM Book WHERE Acc_no>=56782;
```

```
+-----+-----+-----+
| Acc_no | Yr_pib | title          |
+-----+-----+-----+
| 237235 | 1995   | Database systems |
| 376112 | 1992   | Machine design  |
| 543211 | 1991   | programming     |
| 631523 | 1992   | Compiler design  |
| 734216 | 1982   | Algorithm design |
+-----+-----+-----+
```

5 rows in set (0.00 sec)

```
mysql> SELECT Acc_no AS SERIAL_NO
-> FROM Book;
```

```
+-----+  
| SERIAL_NO |  
+-----+  
| 237235 |  
| 376112 |  
| 543211 |  
| 631523 |  
| 734216 |  
+-----+
```

5 rows in set (0.00 sec)

```
mysql> SELECT Yr_pib AS YEAR FROM Book;
```

```
+-----+  
| YEAR |  
+-----+  
| 1995 |  
| 1992 |  
| 1991 |  
| 1992 |  
| 1982 |  
+-----+
```

5 rows in set (0.00 sec)

```
mysql> DESC Book;
```

```
+-----+-----+-----+-----+-----+-----+  
| Field | Type      | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| Acc_no | int       | NO   | PRI | NULL    |       |  
| Yr_pib | int       | NO   | PRI | NULL    |       |  
| title  | varchar(20) | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+
```

3 rows in set (0.00 sec)


```
mysql> INSERT INTO branch VALUES('sanjiv','Trichy','GGGG'),
('srivignesh','Trichy','GGG'),('Nitin','Trichy','GGGGG'),
('Sri','Trichy','GGG'),('Bhop','Trichy','GGGG');
```

```
mysql> DESC branch;
```

Field	Type	Null	Key	Default	Extra
branch_name	varchar(20)	YES		NULL	
branch_city	varchar(20)	YES		NULL	
assets	varchar(20)	YES		NULL	

3 rows in set (0.00 sec)

```
mysql> SELECT COUNT(author_id) FROM author;
```

ERROR 1146 (42S02): Table 'db.author' doesn't exist

```
mysql> SELECT COUNT(author_id) FROM AUTHOR;
```

COUNT(author_id)
5

1 row in set (0.00 sec)

```
mysql> INSERT INTO branch VALUES('Soma','Trichy','GGGG');
```

Query OK, 1 row affected (0.01 sec)

```
mysql> INSERT INTO branch VALUES('San','Trichy','GGG');
```

Query OK, 1 row affected (0.01 sec)

```
mysql> INSERT INTO branch VALUES('Nitin','Trichy','GGGGG');
```

Query OK, 1 row affected (0.02 sec)

```
mysql> INSERT INTO branch VALUES('Jam','Trichy','GGGG');
```

Query OK, 1 row affected (0.01 sec)

```
mysql> INSERT INTO branch VALUES('Sri','Trichy','GGG');  
Query OK, 1 row affected (0.02 sec)
```

```
mysql> INSERT INTO customer VALUES('Soma','Trichy1','GGGG'),  
('San','Trichy2','GGG'),('Nitin','Trichy1','GGGGG'),('Sri','Trichy2','GGG'),  
('Jam','Trichy1','GGGG')  
;  
Query OK, 5 rows affected (0.01 sec)  
Records: 5 Duplicates: 0 Warnings: 0
```

```
mysql> INSERT INTO customer VALUES(1,'Soma',32000),  
(2,'San',12000),(3,'Nitin',23000),(4,'Sri',20050),(5,'Jam',25000);  
Query OK, 5 rows affected (0.02 sec)  
Records: 5 Duplicates: 0 Warnings: 0
```

```
mysql> INSERT INTO customer VALUES('Soma','Trichy1','GGGG'),  
('San','Trichy2','GGG'),('Nitin','Trichy1','GGGGG'),('Sri','Trichy2','GGG'),  
('Jam','Trichy1','GGGG');  
Query OK, 5 rows affected (0.02 sec)  
Records: 5 Duplicates: 0 Warnings: 0
```

```
mysql> INSERT INTO account VALUES(1,'Soma',32000),(2,'San',12000),  
(3,'Nitin',23000)  
Query OK, 5 rows affected (0.01 sec)  
Records: 5 Duplicates: 0 Warnings: 0
```

```
mysql> INSERT INTO loan VALUES(1,'Soma',2000),(2,'San',1000),  
(3,'Nitin',3000),(4,'Sri',50),(5,'Jam',2500);  
Query OK, 5 rows affected (0.02 sec)  
Records: 5 Duplicates: 0 Warnings: 0
```

```
mysql> INSERT INTO depositor VALUES('Soma',1),('San',2),('Nitin',3),  
('Sri',4),('Jam',5);  
Query OK, 5 rows affected (0.02 sec)  
Records: 5 Duplicates: 0 Warnings: 0
```

```
mysql> INSERT INTO borrower VALUES('Soma',1),('San',2),('Nitin',3),  
('Sri',4),('Jam',5);
```

Query OK, 5 rows affected (0.02 sec)

Records: 5 Duplicates: 0 Warnings: 0

```
mysql> SELECT * FROM branch;
```

branch_name	branch_city	assets
Soma	Trichy	GGGG
San	Trichy	GGG
Nitin	Trichy	GGGGG
Jam	Trichy	GGGG
Sri	Trichy	GGG

5 rows in set (0.00 sec)

```
mysql> SELECT * FROM customer;
```

customer_name	customer_city	customer_street
Soma	Trichy1	GGGG
San	Trichy2	GGG
Nitin	Trichy1	GGGGG
Sri	Trichy2	GGG
Jam	Trichy1	GGGG
1	Soma	32000
2	San	12000
3	Nitin	23000
4	Sri	20050
5	Jam	25000
Soma	Trichy1	GGGG
San	Trichy2	GGG
Nitin	Trichy1	GGGGG

```
| Sri      | Trichy2   | GGG      |
| Jam      | Trichy1   | GGGG     |
+-----+-----+-----+
15 rows in set (0.00 sec)
```

```
mysql> SELECT * FROM account;
+-----+-----+-----+
| account_number | branch_name | balance |
+-----+-----+-----+
| 1 | Soma      | 32000 |
| 2 | San       | 12000 |
| 3 | Nitin     | 23000 |
| 4 | Sri       | 20050 |
| 5 | Jam       | 25000 |
+-----+-----+-----+
5 rows in set (0.00 sec)
```

```
mysql> SELECT * FROM loan;
+-----+-----+-----+
| loan_number | branch_name | amount |
+-----+-----+-----+
| 1 | Soma      | 2000 |
| 2 | San       | 1000 |
| 3 | Nitin     | 3000 |
| 4 | Sri       | 50 |
| 5 | Jam       | 2500 |
+-----+-----+-----+
5 rows in set (0.00 sec)
```

```
mysql> SELECT * FROM depositor;
+-----+-----+
| customer_name | account_number |
+-----+-----+
| Soma          | 1 |
| San           | 2 |
```

```
| Nitin      |      3 |  
| Sri        |      4 |  
| Jam        |      5 |  
+-----+-----+  
5 rows in set (0.00 sec)
```

```
mysql> SELECT * FROM borrower;
```

```
+-----+-----+  
| customer_name | loan_number |  
+-----+-----+  
| Soma          |      1 |  
| San           |      2 |  
| Nitin         |      3 |  
| Sri           |      4 |  
| Jam           |      5 |  
+-----+-----+  
5 rows in set (0.00 sec)
```

```
mysql> SELECT amount FROM loan WHERE amount>=12000;  
Empty set (0.00 sec)
```

```
mysql> SELECT branch_name FROM branch WHERE  
branch_city='Trichy';
```

```
+-----+  
| branch_name |  
+-----+  
| Soma        |  
| San         |  
| Nitin       |  
| Jam         |  
| Sri         |  
+-----+  
5 rows in set (0.00 sec)
```

```
mysql> SELECT customer_name FROM depositor WHERE  
account_number=1;
```

```
+-----+  
| customer_name |
```

```
+-----+
```

```
| Soma      |
```

```
+-----+
```

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

```
mysql> SELECT customer_name FROM customer WHERE  
customer_name='S%';
```

```
Empty set (0.00 sec)
```

```
SELECT customer_name FROM customer WHERE customer_name  
LIKE 'S%';
```

```
+-----+
```

```
| customer_name |
```

```
+-----+
```

```
| Soma      |
```

```
| San       |
```

```
| Sri       |
```

```
| Soma      |
```

```
| San       |
```

```
| Sri       |
```

```
+-----+
```