

DATABASE MANAGEMENT SYSTEM – WEEK 05 ASSIGNMENT

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Question 01

```
CREATE TABLE Student(  
    student_id INT,  
    first_name VARCHAR(20),  
    last_name VARCHAR(20),  
    CONSTRAINT PRIMARY KEY (student_id)  
);
```

```
mysql> CREATE TABLE Student(  
->     student_id INT,  
->     first_name VARCHAR(20),  
->     last_name VARCHAR(20),  
->     CONSTRAINT PRIMARY KEY (student_id)  
-> );  
Query OK, 0 rows affected (0.04 sec)  
  
mysql> DESC Student;  
+-----+-----+-----+-----+-----+-----+  
| Field      | Type      | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| student_id | int       | NO   | PRI | NULL    |       |  
| first_name  | varchar(20) | YES  |     | NULL    |       |  
| last_name   | varchar(20) | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
3 rows in set (0.02 sec)  
  
mysql> 
```

```
CREATE TABLE student_contact(  
    student_id INT,  
    email_address VARCHAR(30),  
    contact VARCHAR(15),  
    CONSTRAINT PRIMARY KEY (student_id),  
    CONSTRAINT FOREIGN KEY (student_id) REFERENCES Student(student_id)  
);
```

```
mysql> CREATE TABLE student_contact(  
->     student_id INT,  
->     email_address VARCHAR(30),  
->     contact VARCHAR(15),  
->     CONSTRAINT PRIMARY KEY (student_id),  
->     CONSTRAINT FOREIGN KEY (student_id) REFERENCES Student(student_id)  
-> );  
Query OK, 0 rows affected (0.03 sec)  
  
mysql> DESC student_contact;  
+-----+-----+-----+-----+-----+-----+  
| Field          | Type      | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| student_id     | int       | NO   | PRI | NULL    |       |  
| email_address  | varchar(30) | YES  |     | NULL    |       |  
| contact        | varchar(15) | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
3 rows in set (0.02 sec)  
  
mysql> 
```

INSERT INTO Student VALUES

(1,'Kamal','Perera'),

(2,'Nimal','Samson'),

(3,'Amal','Perera'),

(4,'Roy','Silva');

SELECT * FROM Student;

```
mysql> INSERT INTO Student VALUES
-> (1,'Kamal','Perera'),
-> (2,'Nimal','Samson'),
-> (3,'Amal','Perera'),
-> (4,'Roy','Silva');
Query OK, 4 rows affected (0.01 sec)
Records: 4 Duplicates: 0 Warnings: 0

mysql> SELECT * FROM Student;
+-----+-----+-----+
| student_id | first_name | last_name |
+-----+-----+-----+
|          1 | Kamal      | Perera    |
|          2 | Nimal      | Samson    |
|          3 | Amal       | Perera    |
|          4 | Roy        | Silva     |
+-----+-----+-----+
4 rows in set (0.00 sec)

mysql>
```

INSERT INTO student_contact VALUES

(1,'kamal@school.edu','77234512'),

(2,'nimal@school.edu','77456396'),

(3,'amal@school.edu','077743566');

SELECT * FROM student_contact;

```
mysql> INSERT INTO student_contact VALUES
-> (1,'kamal@school.edu','77234512'),
-> (2,'nimal@school.edu','77456396'),
-> (3,'amal@school.edu','077743566');
Query OK, 3 rows affected (0.01 sec)
Records: 3 Duplicates: 0 Warnings: 0

mysql>
mysql> SELECT * FROM student_contact;INSERT IN
+-----+-----+-----+
| student_id | email_address | contact |
+-----+-----+-----+
|          1 | kamal@school.edu | 77234512 |
|          2 | nimal@school.edu | 77456396 |
|          3 | amal@school.edu | 077743566 |
+-----+-----+-----+
3 rows in set (0.00 sec)
```

Question 02

SELECT student_id, first_name FROM Student;

```
mysql> SELECT student_id, first_name FROM Student;
+-----+-----+
| student_id | first_name |
+-----+-----+
|          1 | Kamal      |
|          2 | Nimal      |
|          3 | Amal       |
|          4 | Roy        |
+-----+-----+
4 rows in set (0.00 sec)

mysql> 
```

Question 03

SELECT Student.student_id, Student.first_name, student_contact.email_address AS Email
FROM Student
INNER JOIN student_contact
ON Student.student_id = student_contact.student_id;

```
mysql> SELECT Student.student_id, Student.first_name, student_contact.email_address AS Email
-> FROM Student
-> INNER JOIN student_contact
-> ON Student.student_id = student_contact.student_id;
+-----+-----+-----+
| student_id | first_name | Email          |
+-----+-----+-----+
|          1 | Kamal      | kamal@school.edu |
|          2 | Nimal      | nimal@school.edu |
|          3 | Amal       | amal@school.edu  |
+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> 
```

Question 04

```
SELECT CONCAT(Student.first_name,' ', Student.last_name) AS "Full Name", student_contact.email_address
FROM Student
INNER JOIN student_contact
ON Student.student_id = student_contact.student_id;
```

```
mysql> SELECT CONCAT(Student.first_name,' ', Student.last_name) AS "Full Name", student_contact.email_address
-> FROM Student
-> INNER JOIN student_contact
-> ON Student.student_id = student_contact.student_id;
+-----+-----+
| Full Name | email_address |
+-----+-----+
| Kamal Perera | kamal@school.edu |
| Nimal Samson | nimal@school.edu |
| Amal Perera | amal@school.edu |
+-----+-----+
3 rows in set (0.00 sec)

mysql> █
```

Question 05

```
SELECT Student.student_id, Student.first_name, student_contact.email_address AS Email
FROM Student
INNER JOIN student_contact
ON Student.student_id = student_contact.student_id
WHERE first_name LIKE '%mal%';
```

```
mysql> SELECT Student.student_id, Student.first_name, student_contact.email_address AS Email
-> FROM Student
-> INNER JOIN student_contact
-> ON Student.student_id = student_contact.student_id
-> WHERE first_name LIKE '%mal%';
+-----+-----+-----+
| student_id | first_name | Email |
+-----+-----+-----+
| 1 | Kamal | kamal@school.edu |
| 2 | Nimal | nimal@school.edu |
| 3 | Amal | amal@school.edu |
+-----+-----+-----+
3 rows in set (0.01 sec)

mysql> █
```

Question 06

```
CREATE TABLE DepartmentInfo(  
    DepartmentID INT,  
    DepartmentName VARCHAR(20),  
    CONSTRAINT PRIMARY KEY (DepartmentID)  
);  
  
DESC DepartmentInfo;
```

```
mysql> CREATE TABLE DepartmentInfo(  
->     DepartmentID INT,  
->     DepartmentName VARCHAR(20),  
->     CONSTRAINT PRIMARY KEY (DepartmentID)  
-> );  
Query OK, 0 rows affected (0.15 sec)  
  
mysql>  
mysql> DESC DepartmentInfo;  
+-----+-----+-----+-----+-----+-----+  
| Field          | Type          | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| DepartmentID   | int           | NO   | PRI | NULL    |       |  
| DepartmentName | varchar(20)    | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
2 rows in set (0.04 sec)  
  
mysql> 
```

```
CREATE TABLE StudentInfo(  
    StudentID INT,  
    StudentName VARCHAR(20),  
    DepartmentID INT,  
    CONSTRAINT PRIMARY KEY (StudentID),  
    CONSTRAINT FOREIGN KEY (DepartmentID) REFERENCES DepartmentInfo(DepartmentID)  
);  
  
DESC StudentInfo;
```

```
mysql> CREATE TABLE StudentInfo(  
->     StudentID INT,  
->     StudentName VARCHAR(20),  
->     DepartmentID INT,  
->     CONSTRAINT PRIMARY KEY (StudentID),  
->     CONSTRAINT FOREIGN KEY (DepartmentID) REFERENCES DepartmentInfo(DepartmentID)  
-> );  
Query OK, 0 rows affected (0.02 sec)  
  
mysql> DESC StudentInfo;  
+-----+-----+-----+-----+-----+-----+  
| Field          | Type          | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| StudentID      | int           | NO   | PRI | NULL    |       |  
| StudentName    | varchar(20)    | YES  |     | NULL    |       |  
| DepartmentID   | int           | YES  | MUL | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
3 rows in set (0.01 sec)  
  
mysql> 
```



```
CREATE TABLE CourseInfo(

    CourseID INT,

    CourseName VARCHAR(30),

    DepartmentID INT,

    CONSTRAINT PRIMARY KEY (CourseID),

    CONSTRAINT FOREIGN KEY (DepartmentID) REFERENCES DepartmentInfo(DepartmentID)

);

DESC CourseInfo;
```

```
mysql> CREATE TABLE CourseInfo(
->   CourseID INT,
->   CourseName VARCHAR(30),
->   DepartmentID INT,
->   CONSTRAINT PRIMARY KEY (CourseID),
->   CONSTRAINT FOREIGN KEY (DepartmentID) REFERENCES DepartmentInfo(DepartmentID)
-> );
Query OK, 0 rows affected (0.02 sec)

mysql> DESC CourseInfo;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| CourseID   | int       | NO   | PRI | NULL    |       |
| CourseName | varchar(30) | YES  |     | NULL    |       |
| DepartmentID | int       | YES  | MUL | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql>
```

```
mysql> INSERT INTO DepartmentInfo VALUES
-> (101,'Computer Science'),
-> (102,'Mathematics'),
-> (103,'History');
Query OK, 3 rows affected (0.01 sec)
Records: 3 Duplicates: 0 Warnings: 0

mysql> SELECT * FROM DepartmentInfo;
+-----+-----+
| DepartmentID | DepartmentName |
+-----+-----+
|          101 | Computer Science |
|          102 | Mathematics      |
|          103 | History          |
+-----+-----+
3 rows in set (0.00 sec)

mysql>
```

```
mysql> INSERT INTO StudentInfo VALUES
-> (1,'Alice',101),
-> (2,'Bob',102),
-> (3,'Carol',101),
-> (4,'Dave',103);
Query OK, 4 rows affected (0.01 sec)
Records: 4 Duplicates: 0 Warnings: 0

mysql>
mysql> SELECT * FROM StudentInfo;
+-----+-----+-----+
| StudentID | StudentName | DepartmentID |
+-----+-----+-----+
|          1 | Alice       |          101 |
|          2 | Bob         |          102 |
|          3 | Carol       |          101 |
|          4 | Dave        |          103 |
+-----+-----+-----+
4 rows in set (0.00 sec)

mysql>
```

```
mysql> INSERT INTO CourseInfo VALUES
-> (1,'Database Systems',101),
-> (2,'Calculus',102),
-> (3,'World History',103);
Query OK, 3 rows affected (0.42 sec)
Records: 3 Duplicates: 0 Warnings: 0

mysql> SELECT * FROM CourseInfo;
+-----+-----+-----+
| CourseID | CourseName      | DepartmentID |
+-----+-----+-----+
|          1 | Database Systems |          101 |
|          2 | Calculus         |          102 |
|          3 | World History    |          103 |
+-----+-----+-----+
3 rows in set (0.00 sec)

mysql>
```

Question 07

SELECT StudentName, DepartmentName

FROM StudentInfo

INNER JOIN DepartmentInfo

ON

DepartmentInfo.DepartmentID = StudentInfo.DepartmentID;

```
mysql> SELECT StudentName, DepartmentName
-> FROM StudentInfo
-> INNER JOIN DepartmentInfo
-> ON
-> DepartmentInfo.DepartmentID = StudentInfo.DepartmentID;
+-----+-----+
| StudentName | DepartmentName |
+-----+-----+
| Alice       | Computer Science |
| Carol       | Computer Science |
| Bob         | Mathematics      |
| Dave        | History          |
+-----+-----+
4 rows in set (0.01 sec)

mysql> 
```

Question 08

SELECT StudentName, DepartmentName

FROM StudentInfo

LEFT JOIN DepartmentInfo

ON

DepartmentInfo.DepartmentID = StudentInfo.DepartmentID;

```
mysql> SELECT StudentName, DepartmentName
-> FROM StudentInfo
-> LEFT JOIN DepartmentInfo
-> ON
-> DepartmentInfo.DepartmentID = StudentInfo.DepartmentID;
+-----+-----+
| StudentName | DepartmentName |
+-----+-----+
| Alice       | Computer Science |
| Bob         | Mathematics      |
| Carol       | Computer Science |
| Dave        | History          |
+-----+-----+
4 rows in set (0.01 sec)

mysql> 
```


Question 09

SELECT DepartmentName, StudentName

FROM DepartmentInfo

LEFT JOIN StudentInfo

ON

DepartmentInfo.DepartmentID = StudentInfo.DepartmentID;

```
mysql> SELECT DepartmentName, StudentName
-> FROM DepartmentInfo
-> LEFT JOIN StudentInfo
-> ON
-> DepartmentInfo.DepartmentID = StudentInfo.DepartmentID;
+-----+-----+
| DepartmentName | StudentName |
+-----+-----+
| Computer Science | Alice      |
| Computer Science | Carol     |
| Mathematics     | Bob       |
| History         | Dave      |
+-----+-----+
4 rows in set (0.01 sec)

mysql> 
```

Question 10

SELECT DepartmentName,COUNT(*) AS Student_Count

FROM DepartmentInfo

LEFT JOIN StudentInfo

ON

DepartmentInfo.DepartmentID = StudentInfo.DepartmentID

GROUP BY DepartmentName;

```
mysql> SELECT DepartmentName, COUNT(*) AS student_count
-> FROM DepartmentInfo
-> LEFT JOIN StudentInfo ON DepartmentInfo.DepartmentID = StudentInfo.DepartmentID
-> GROUP BY DepartmentName;
+-----+-----+
| DepartmentName | student_count |
+-----+-----+
| Computer Science | 2            |
| Mathematics     | 1            |
| History         | 1            |
+-----+-----+
3 rows in set (0.01 sec)

mysql> 
```

Question 11

SELECT StudentName, CourseName, DepartmentName

FROM DepartmentInfo

INNER JOIN CourseInfo ON CourseInfo.DepartmentID = DepartmentInfo.DepartmentID

INNER JOIN StudentInfo ON DepartmentInfo.DepartmentID = StudentInfo.DepartmentID;

```
mysql> SELECT StudentName, CourseName, DepartmentName
-> FROM DepartmentInfo
-> INNER JOIN CourseInfo ON CourseInfo.DepartmentID = DepartmentInfo.DepartmentID
-> INNER JOIN StudentInfo ON DepartmentInfo.DepartmentID = StudentInfo.DepartmentID;
```

StudentName	CourseName	DepartmentName
Alice	Database Systems	Computer Science
Carol	Database Systems	Computer Science
Bob	Calculus	Mathematics
Dave	World History	History

4 rows in set (0.05 sec)

```
mysql> 
```

Question 12

SELECT StudentName AS "Student Enrolled to Computer Science"

FROM StudentInfo

INNER JOIN DepartmentInfo ON DepartmentInfo.DepartmentID = StudentInfo.DepartmentID

WHERE DepartmentName = "Computer Science";

```
mysql> SELECT StudentName AS "Student Enrolled to Computer Science"
-> FROM StudentInfo
-> INNER JOIN DepartmentInfo ON DepartmentInfo.DepartmentID = StudentInfo.DepartmentID
-> WHERE DepartmentName = "Computer Science";
```

Student Enrolled to Computer Science
Alice
Carol

2 rows in set (0.01 sec)

```
mysql> 
```

Question 13

```
SELECT DepartmentName, COUNT(*) AS student_count
FROM DepartmentInfo
LEFT JOIN StudentInfo ON DepartmentInfo.DepartmentID = StudentInfo.DepartmentID
GROUP BY DepartmentName
HAVING COUNT(*) > 1;
```

```
mysql> SELECT DepartmentName, COUNT(*) AS student_count
-> FROM DepartmentInfo
-> LEFT JOIN StudentInfo ON DepartmentInfo.DepartmentID = StudentInfo.DepartmentID
-> GROUP BY DepartmentName
-> HAVING COUNT(*) > 1;
```

```
+-----+-----+
| DepartmentName | student_count |
+-----+-----+
| Computer Science |          2 |
+-----+-----+
1 row in set (0.01 sec)
```

```
mysql> █
```

Question 14

```
SELECT StudentName AS "Student Who Taking DataBase Systems Course"
FROM DepartmentInfo
INNER JOIN StudentInfo ON DepartmentInfo.DepartmentID = StudentInfo.DepartmentID
INNER JOIN CourseInfo ON CourseInfo.DepartmentID = DepartmentInfo.DepartmentID
WHERE DepartmentInfo.DepartmentName = "Computer Science" AND CourseInfo.CourseName = "Database Systems";
```

```
mysql> SELECT StudentName AS "Student Who Taking DataBase Systems Course"
-> FROM DepartmentInfo
-> INNER JOIN StudentInfo ON DepartmentInfo.DepartmentID = StudentInfo.DepartmentID
-> INNER JOIN CourseInfo ON CourseInfo.DepartmentID = DepartmentInfo.DepartmentID
-> WHERE DepartmentInfo.DepartmentName = "Computer Science" AND CourseInfo.CourseName = "Database Systems";
```

```
+-----+-----+
| Student Who Taking DataBase Systems Course |
+-----+-----+
| Alice |
| Carol |
+-----+-----+
2 rows in set (0.00 sec)
```

```
mysql> █
```

Question 15

CREATE TABLE Author(

AuthorID INT,

AuthorName VARCHAR(30),

Country VARCHAR(10),

CONSTRAINT PRIMARY KEY (AuthorID)

);

DESC Author;

```
mysql> CREATE TABLE Author(  
-> AuthorID INT,  
-> AuthorName VARCHAR(30),  
-> Country VARCHAR(10),  
-> CONSTRAINT PRIMARY KEY (AuthorID)  
-> );  
Query OK, 0 rows affected (0.15 sec)  
  
mysql> DESC Author;  
+-----+-----+-----+-----+-----+-----+  
| Field      | Type      | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| AuthorID   | int       | NO   | PRI | NULL    |       |  
| AuthorName | varchar(30) | YES  |     | NULL    |       |  
| Country    | varchar(10) | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
3 rows in set (0.62 sec)  
  
mysql> █
```

```

CREATE TABLE Book(

    BookID INT,

    Title VARCHAR(40),

    AuthorID INT,

    PublicationYear INT,

    CONSTRAINT PRIMARY KEY (BookID),

    CONSTRAINT FOREIGN KEY (AuthorID) REFERENCES Author(AuthorID)

);

DESC Book;

```

```

mysql> CREATE TABLE Book(
->     BookID INT,
->     Title VARCHAR(40),
->     AuthorID INT,
->     PublicationYear INT,
->     CONSTRAINT PRIMARY KEY (BookID),
->     CONSTRAINT FOREIGN KEY (AuthorID) REFERENCES Author(AuthorID)
-> );

```

Query OK, 0 rows affected (0.05 sec)

```

mysql>
mysql> DESC Book;

```

Field	Type	Null	Key	Default	Extra
BookID	int	NO	PRI	NULL	
Title	varchar(40)	YES		NULL	
AuthorID	int	YES	MUL	NULL	
PublicationYear	int	YES		NULL	

4 rows in set (0.01 sec)


```
CREATE TABLE Reader(

    ReaderID INT,

    ReaderName VARCHAR(30),

    BookID INT,

    CONSTRAINT PRIMARY KEY (ReaderID),

    CONSTRAINT FOREIGN KEY (BookID) REFERENCES Book(BookID)

);

DESC Reader;
```

```
mysql> CREATE TABLE Reader(
->     ReaderID INT,
->     ReaderName VARCHAR(30),
->     BookID INT,
->     CONSTRAINT PRIMARY KEY (ReaderID),
->     CONSTRAINT FOREIGN KEY (BookID) REFERENCES Book(BookID)
-> );
Query OK, 0 rows affected (0.03 sec)

mysql> DESC Reader;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| ReaderID   | int           | NO   | PRI | NULL    |       |
| ReaderName | varchar(30)   | YES  |     | NULL    |       |
| BookID     | int           | YES  | MUL | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> █
```

```
mysql> INSERT INTO Author VALUES
-> (1,'John Smith','USA'),
-> (2,'Emily Brown','UK'),
-> (3,'Maria Lopez','Spain');
Query OK, 3 rows affected (0.00 sec)
Records: 3 Duplicates: 0 Warnings: 0

mysql> SELECT * FROM Author;
+-----+-----+-----+
| AuthorID | AuthorName | Country |
+-----+-----+-----+
| 1        | John Smith | USA     |
| 2        | Emily Brown| UK      |
| 3        | Maria Lopez| Spain   |
+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> █
```

```
mysql> INSERT INTO Book VALUES
-> (1,'The Book of Life',1,2020),
-> (2,'Secrets Revealed',2,2019),
-> (3,'Mystery Tales',1,2022),
-> (4,'Spanish Cuisine',3,2021);
Query OK, 4 rows affected (0.02 sec)
Records: 4 Duplicates: 0 Warnings: 0

mysql>
mysql> SELECT * FROM Book;
+-----+-----+-----+-----+
| BookID | Title          | AuthorID | PublicationYear |
+-----+-----+-----+-----+
| 1      | The Book of Life | 1        | 2020            |
| 2      | Secrets Revealed | 2        | 2019            |
| 3      | Mystery Tales   | 1        | 2022            |
| 4      | Spanish Cuisine  | 3        | 2021            |
+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> █
```

```
mysql> INSERT INTO Reader VALUES
-> (101,'Alice',1),
-> (102,'Bob',2),
-> (103,'Carol',3),
-> (104,'David',1);
Query OK, 4 rows affected (0.01 sec)
Records: 4 Duplicates: 0 Warnings: 0

mysql>
mysql> SELECT * FROM Reader;
+-----+-----+-----+
| ReaderID | ReaderName | BookID |
+-----+-----+-----+
| 101      | Alice      | 1      |
| 102      | Bob        | 2      |
| 103      | Carol      | 3      |
| 104      | David      | 1      |
+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> █
```


Question 16

```
SELECT Author.AuthorName, COUNT(Book.BookID) AS BooksPublished
FROM Author
INNER JOIN Book
ON Author.AuthorID = Book.AuthorID
GROUP BY Author.AuthorID, Author.AuthorName
HAVING COUNT(Book.BookID) > 0;
```

```
mysql> SELECT Author.AuthorName, COUNT(Book.BookID) AS BooksPublished
-> FROM Author
-> INNER JOIN Book
-> ON Author.AuthorID = Book.AuthorID
-> GROUP BY Author.AuthorID, Author.AuthorName
-> HAVING COUNT(Book.BookID) > 0;
```

AuthorName	BooksPublished
John Smith	2
Emily Brown	1
Maria Lopez	1

3 rows in set (0.00 sec)

```
mysql> █
```

Question 17

```
SELECT Author.AuthorName, COUNT(Book.BookID) AS TotalBooks
FROM Author
LEFT JOIN Book ON Author.AuthorID = Book.AuthorID
GROUP BY Author.AuthorID, Author.AuthorName;
```

```
mysql> SELECT Author.AuthorName, COUNT(Book.BookID) AS TotalBooks
-> FROM Author
-> LEFT JOIN Book ON Author.AuthorID = Book.AuthorID
-> GROUP BY Author.AuthorID, Author.AuthorName;
```

AuthorName	TotalBooks
John Smith	2
Emily Brown	1
Maria Lopez	1

3 rows in set (0.00 sec)

```
mysql> █
```

Question 18

```
SELECT Book.Title,Book.PublicationYear,Author.AuthorName
FROM Book
INNER JOIN Author ON Book.AuthorID = Author.AuthorID
WHERE Book.PublicationYear < 2020;
```

```
mysql> SELECT Book.Title,Book.PublicationYear,Author.AuthorName
-> FROM Book
-> INNER JOIN Author ON Book.AuthorID = Author.AuthorID
-> WHERE Book.PublicationYear < 2020;
+-----+-----+-----+
| Title          | PublicationYear | AuthorName |
+-----+-----+-----+
| Secrets Revealed |          2019 | Emily Brown |
+-----+-----+-----+
1 row in set (0.00 sec)

mysql> █
```

Question 19

```
SELECT Reader.ReaderName,Book.Title
FROM Reader
INNER JOIN Book
ON Reader.BookID = Book.BookID
WHERE Reader.ReaderID = 101 OR Reader.ReaderID = 102;
```

```
mysql> SELECT Reader.ReaderName,Book.Title
-> FROM Reader
-> INNER JOIN Book
-> ON Reader.BookID = Book.BookID
-> WHERE Reader.ReaderID = 101 OR Reader.ReaderID = 102;
+-----+-----+
| ReaderName | Title          |
+-----+-----+
| Alice      | The Book of Life |
| Bob        | Secrets Revealed |
+-----+-----+
2 rows in set (0.00 sec)

mysql> █
```

Question 20

SELECT Reader.ReaderName,Book.Title

FROM Reader

INNER JOIN Book

ON Reader.BookID = Book.BookID

WHERE (Reader.ReaderID = 101 OR Reader.ReaderID = 102) AND Book.BookID = 2;

```
mysql> SELECT Reader.ReaderName,Book.Title
-> FROM Reader
-> INNER JOIN Book
-> ON Reader.BookID = Book.BookID
-> WHERE (Reader.ReaderID = 101 OR Reader.ReaderID = 102) AND Book.BookID = 2;
```

```
+-----+-----+
| ReaderName | Title |
+-----+-----+
| Bob       | Secrets Revealed |
+-----+-----+
1 row in set (0.01 sec)
```

```
mysql> █
```