Experiment 1

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Semester: 5th **Date of Performance:28-07-25**
Subject Name: ADBMS **Subject Code:23CSP-333**

1. Aim:

a)Create a database schema to model the relationship between authors and books using SQL. Begin by designing two tables: one named `Authors` to store details such as the author's ID, name, and country; and another named `Books` to store details such as the book's ID, title, and a foreign key that references the corresponding author's ID. Populate each table with at least three sample records. Then, write an SQL query using an `INNER JOIN` to retrieve a list that links each book with its respective author. The final output should display the book title, the author's name, and the author's country. This exercise will demonstrate your ability to design relational tables, establish foreign key relationships, and perform join operations to combine related data across multiple tables.

2. DBMS script and output:

```
CREATE TABLE Authors (
    AuthorID INT PRIMARY KEY,
    AuthorName VARCHAR(100),
    Country VARCHAR(100)
);

CREATE TABLE Books (
    BookID INT PRIMARY KEY,
    Title VARCHAR(150),
    AuthorID INT,
    FOREIGN KEY (AuthorID) REFERENCES Authors(AuthorID)
);

INSERT INTO Authors VALUES
```

```
(1, 'J.K. Rowling', 'United Kingdom'),
(2, 'George R.R. Martin', 'United States'),
(3, 'Haruki Murakami', 'Japan');

INSERT INTO Books VALUES
(101, 'Harry Potter and the Sorcerer"s Stone', 1),
(102, 'A Game of Thrones', 2),
(103, 'Kafka on the Shore', 3);

SELECT
    B.Title AS [Book Title],
    A.AuthorName AS [Author Name],
    A.Country AS [Author Country]
FROM
    Books B
INNER JOIN
    Authors A
ON
    B.AuthorID = A.AuthorID;
```

3. Output:

Book Title	Author Name	Author Country
Harry Potter and the Sorcerer's Stone	J.K. Rowling	United Kingdom
A Game of Thrones	George R.R. Martin	United States
Kafka on the Shore	Haruki Murakami	Japan

4. Learning outcomes:

- You will be able to write basic SQL queries.
- You will learn to perform JOINS in SQL.
- You will understand how to implement foreign k