Experiment-1

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1. Aim:

a.) Author-Book Relationship Using Joins and Basic SQL Operations.

Patient

- Design two tables — one for storing author details and the other for book details.
- Ensure a foreign key relationship from the book to its respective author.
- Insert at least three records in each table.
- Perform an INNER JOIN to link each book with its author using the common author ID.
- Select the book title, author name, and author's country.

Author_id	Name	country
1	JK Rowling	UK
2	Erich Segal	USA
3	Jojo Moyes	Japan

book_id	Title	Author_id
1	Harry Potter	1
2	Love Story	2
3	Me Before You	3

2. Objective:

- To understand how to use JOINS in SQL.
- To understand the basic SQL Queries.
- To learn how to create Foreign keys in SQL.

3. DBMS Script :

Query 1:

```
-- Create Author table
CREATE TABLE Author (
    author_id INT PRIMARY KEY,
    name VARCHAR(100),
    country VARCHAR(100)
);

-- Create Book table with a foreign key to Author
CREATE TABLE Book (
    book_id INT PRIMARY KEY,
    title VARCHAR(200),
    author_id INT,
    FOREIGN KEY (author_id) REFERENCES Author(author_id)
);
-- Insert data into Author
INSERT INTO Author (author_id, name, country) VALUES
(1, 'J.K. Rowling', 'United Kingdom'),
(2, ' Erich Segal ', 'United States'),
(3, ‘Jojo Moyes’, 'Japan');

-- Insert data into Book
INSERT INTO Book (book_id, title, author_id) VALUES
(101, 'Harry Potter and the Philosopher\'s Stone', 1),
(102, 'Love Story', 2),
(103, 'Me Before You', 3);

-- Join the tables to get book title, author name, and country
SELECT
    Book.title AS Book_Title,
    Author.name AS Author_Name,
    Author.country AS Author_Country
FROM
    Book
INNER JOIN
    Author ON Book.author_id = Author.author_id;
```

Output :

Output:

Book_Title	Author_Name	Author_Country
Harry Potter and the Philosopher's Stone	J.K. Rowling	United Kingdom
Love Story	Erich Segal	United States
Me Before You	Jojo Moyes	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 keys.