



## Experiment-1

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**Branch:** CSE

**Semester:** 5th

**Subject Name:** ADBMS

**UID:** 23BCS10022

**Section/Group:** KRG-2B

**Date of Performance:** 28-07-25

**Subject Code:** 23CSP-333

### 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	Haruki Murakami	Japan
2	Jane Austen	United Kingdom
3	Gabriel Garcia Marquez	Colombia

book_id	Title	Author_id
1	Norwegian wood	1
2	Pride and prejudice	2
3	One hundred years of solitude	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 INTEGER PRIMARY KEY, -- Primary key for author_id  
    name VARCHAR(100) NOT NULL,    -- Name of the author  
    country VARCHAR(100) NOT NULL  -- Country of the author  
);
```

-- Create Book table

```
CREATE TABLE BOOK (  
    book_id INTEGER PRIMARY KEY,    -- Primary key for book_id  
    title VARCHAR(200) NOT NULL,    -- Title of the book  
    author_id INTEGER,              -- Foreign key linking to AUTHOR table  
    FOREIGN KEY (author_id) REFERENCES AUTHOR(author_id) -- Enforcing foreign  
key relationship  
);
```

-- Insert data into Author table

```
INSERT INTO AUTHOR (author_id, name, country) VALUES  
(1, 'Haruki Murakami', 'Japan'),  
(2, 'Jane Austen', 'United Kingdom'),  
(3, 'Gabriel Garcia Marquez', 'Colombia');
```

-- Insert data into Book table

```
INSERT INTO BOOK (book_id, title, author_id) VALUES  
(1, 'Norwegian Wood', 1),  
(2, 'Pride and Prejudice', 2),  
(3, 'One Hundred Years of Solitude', 3);
```

-- Join the tables and select book title, author name, and author's country

```
SELECT  
    B.title AS Book_Title,  
    A.name AS Author_Name,  
    A.country AS Author_Country  
FROM
```



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```
BOOK AS B
INNER JOIN
AUTHOR AS A
ON
B.author_id = A.author_id;
```

Output:

Book_Title	Author_Name	Author_Country
Norwegian Wood	Haruki Murakami	Japan
Pride and Prejudice	Jane Austen	United Kingdom
One Hundred Years of Solitude	Gabriel Garcia Marquez	Colombia

## 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.