# 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 |
|---|---|---|
| 10 | Jane Austen | United Kingdom |
| 20 | Mark Twain | United States |
| 30 | Gabriel Garcia Marquez | Colombia |

| book_id | Title | Author_id |
|---|---|---|
| 1001 | Pride and Prejudice | 10 |
| 1002 | The Adventures of Tom Sawyer | 20 |
| 1003 | One Hundred Years of Solitude | 30 |

## 2. Objective:

- Understand SQL Basics
- Connect Tables with Joins
- To learn how to create Foreign keys in SQL.

**3. DBMS Script :**

```sql
USE KRG_2B;

CREATE TABLE Authors (
   author_id INT PRIMARY KEY,
   author_name VARCHAR(100),
   author_country VARCHAR(100)
);

CREATE TABLE Books (
   book_id INT PRIMARY KEY,
   book_title VARCHAR(200),
   author_id INT,
   FOREIGN KEY (author_id) REFERENCES
Authors(author_id)
);

INSERT INTO Authors (author_id, author_name,
author_country) VALUES
(10, 'Jane Austen', 'United Kingdom'),
(20, 'Mark Twain', 'United States'),
(30, 'Gabriel Garcia Marquez', 'Colombia');

INSERT INTO Books (book_id, book_title, author_id)
VALUES
(1001, 'Pride and Prejudice', 10),
(1002, 'The Adventures of Tom Sawyer', 20),
(1003, 'One Hundred Years of Solitude', 30);

SELECT Books.book_title AS BookTitle,
Authors.author_name AS AuthorName,
Authors.author_country AS AuthorCountry
FROM Books
INNER JOIN Authors
ON Books.author_id = Authors.author_id;
```

## 4. Output:

| | BookTitle | AuthorName | AuthorCountry |
|---|---|---|---|
| 1 | Pride and Prejudice | Jane Austen | United Kingdom |
| 2 | The Adventures of Tom Sawyer | Mark Twain | United States |
| 3 | One Hundred Years of Solitude | Gabriel Garcia Marquez | Colombia |

## 5. Learning Outcomes:

- You will learn how to write commands to retrieve data.

- You will learn to use joins to create relations between tables.

- You will understand how to implement foreign keys.