EXPERIMENT-1

AIM-

Create Authors and Books using DDL Commands Insert Sample Records into Authors and Books Tables retrieve Book Titles along Author Information using Inner Join.

OBJECTIVE:

1. Create 'Authors' and 'Books' tables with proper primary and foreign key constraints.
2. Insert at least 3 records into each table.
3. Retrieve book titles with corresponding author names and countries using INNER JOIN.

THEORY:

The uses SQL to build a relational database with two tables: 'Authors' and 'Books'. Each book references one author using a foreign key. INNER JOIN is used to combine rows from both tables where there is a match on author_id, allowing retrieval of combined data like book title, author name, and country.

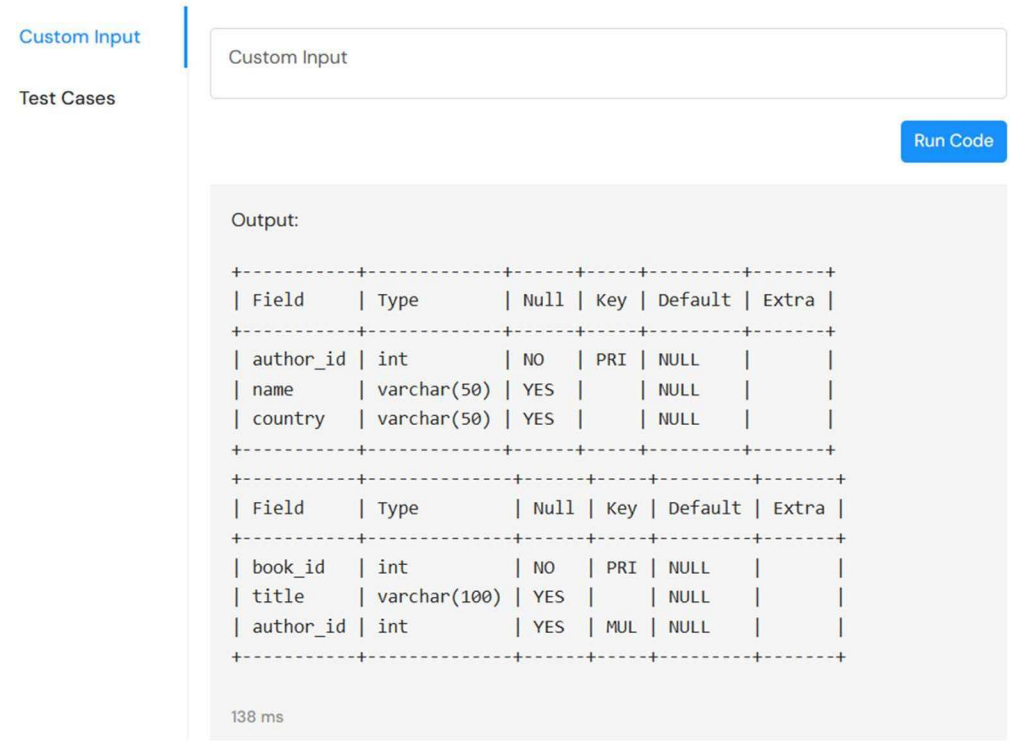
ALGORITHM:

1. **Start**
2. Create the Authors table with:
    - author_id as primary key
    - name and country fields
3. Create the Books table with:
    - book_id as primary key
    - title and author_id
    - Add a foreign key on author_id referencing Authors(author_id)
4. Insert sample data (at least 3 records) into both tables.
5. Write an **INNER JOIN** query to retrieve title, name, and country where Books.author_id = Authors.author_id.
6. Display the output.
7. **End**

QUERY:

```
-- Create Tables
CREATE TABLE Authors(author_id INT PRIMARY KEY, name VARCHAR(50), country
VARCHAR(50));
CREATE TABLE Books(book_id INT PRIMARY KEY, title VARCHAR(100), author_id INT,
FOREIGN KEY(author_id) REFERENCES Authors(author_id));
-- Insert Data
INSERT INTO Authors(author_id, name, country) VALUES (1, 'Ashish', 'India'), (2, 'Smaran',
'USA'), (3, 'Vaibhav', 'UK');
INSERT INTO Books(book_id, title, author_id) VALUES (101, 'Data Science Basics', 1), (102, 'ML
Fundamentals', 2), (103, 'AI Intro', 3)
;-- Retrieve Data using INNER JOIN
SELECT Books.title, Authors.name, Authors.country FROM Books INNER JOIN Authors ON
Books.author_id = Authors.author_id;
```

OUTPUT:



Custom Input

Test Cases

Custom Input

Run Code

Output:

```
+-----------+---------+---------+
| author_id | name    | country |
+-----------+---------+---------+
|         1 | Ashish  | India   |
|         2 | Smaran  | USA     |
|         3 | Vaibhav | UK      |
+-----------+---------+---------+
+---------+----------------------+-----------+
| book_id | title                | author_id |
+---------+----------------------+-----------+
|     101 | Data Science Basics  |         1 |
|     102 | AI in Education      |         2 |
|     103 | SQL Simplified       |         1 |
+---------+----------------------+-----------+
```

174 ms

Custom Input

Test Cases

Custom Input

Run Code

Output:

```
+----------------------+--------+---------+
| title                | name   | country |
+----------------------+--------+---------+
| Data Science Basics  | Ashish | India   |
| AI in Education      | Smaran | USA     |
| SQL Simplified       | Ashish | India   |
+----------------------+--------+---------+
```

172 ms