Table Schema: Book Table

Let's create a new table called **Book** for performing various CRUD and advanced operations.

Book Table Structure:

BookID (PK)	Title	Author	Genre	Price	PublishedYear	Stock
1	The Alchemist	Paulo Coelho	Fiction	300	1988	50
2	Sapiens	Yuval Noah Harari	Non-Fiction	500	2011	30
3	Atomic Habits	James Clear	Self-Help	400	2018	25
4	Rich Dad Poor Dad	Robert Kiyosaki	Personal Finance	350	1997	20
5	The Lean Startup	Eric Ries	Business	450	2011	15

Tasks:

1. CRUD Operations:

1. **Add a new book:**
   - Insert a book titled **"Deep Work"** by **Cal Newport**, Genre **Self-Help**, Price **420**, Published Year **2016**, Stock **35**.
2. **Update book price:**
   - Increase the **price** of all **Self-Help** books by **50**.
3. **Delete a book:**
   - Remove the book with **BookID = 4** (Rich Dad Poor Dad).
4. **Read all books:**
   - Display all books sorted by **Title** in **ascending order**.

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2. Sorting and Filtering:

5. **Sort by price:**
   - List books sorted by **Price** in **descending order**.
6. **Filter by genre:**
   - Display all books belonging to the **Fiction** genre.
7. **Filter with AND condition:**
   - List all **Self-Help** books priced **above 400**.
8. **Filter with OR condition:**
   - Retrieve all books that are either **Fiction** or published **after 2000**.

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3. Aggregation and Grouping:

9. **Total stock value:**
    - Calculate the (Price * Stock).
10. **Average price by genre:**
    - Calculate the **average price** of books grouped by **Genre**.
11. **Total books by author:**
    - Count the **number of books** written by **Paulo Coelho**.

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4. Conditional and Pattern Matching:

12. **Find books with a keyword in title:**

- List all books whose **Title** contains the word **"The"**.

13. **Filter by multiple conditions:**

- Display all books by **Yuval Noah Harari** priced **below 600**.

14. **Find books within a price range:**

- List books priced **between 300 and 500**.

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5. Advanced Queries:

15. **Top 3 most expensive books:**
    - Display the **top 3 books** with the **highest price**.
16. **Books published before a specific year:**
    - Find all books published **before the year 2000**.
17. **Group by Genre:**
    - Calculate the **total number of books** in each **Genre**.
18. **Find duplicate titles:**
    - Identify any books having the **same title**.

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6. Join and Subqueries (if related tables are present):

19. **Author with the most books:**
    - Find the **author** who has written the **maximum number of books**.
20. **Oldest book by genre:**
    - Find the **earliest published book** in each genre.