

In 2005, there was a library in city X. The library was quite complete at that time, students and the public often visited to study and spend their free time there.

At the end of 2005, the library decided to increase the number of existing books. Also, the library wants to create a system to make it easier to borrow and organize books. You as one of the library staff were chosen to create the system.

The system consists of 3 main components, namely books, visitors, and borrowing\_history. In the first component, the book has the attributes of title, author, year\_of\_publication, and book\_status(available/borrowed/damaged/lost), in the second component the visitor has the attributes of the name, date\_of\_birth, gender(male/female), address, and phone number, in the last component history\_of\_borrowing has the attribute of borrowed\_book, borrower, borrowing\_date, and return\_date.

After several months of operation, it turns out that this system has several shortcomings. So you are re-appointed as a system maker to develop features to overcome these shortcomings

This system has 3 drawbacks, namely:

1. Find a list of the titles of any books that were borrowed during a certain period with a specified year of publication, for example: looking for books that were borrowed from 10 January 2006 to 15 February 2006 which have the year published 1991

🕒 Example output:

| title                  |
|------------------------|
| Decision in Normandy   |
| The Kitchen God's Wife |
| The Kitchen God's Wife |

2. The second is to display a list of visitors who borrow books for more than 1 month

🕒 Example output:

| id | name | date_of_birth | gender | address              | phone_number | day_diff |
|----|------|---------------|--------|----------------------|--------------|----------|
| 1  | Budi | 1990-01-23    | male   | Jl. Something No. 51 | 08XXXXXXXXXX | 32       |
| 2  | Anto | 1990-01-23    | male   | Jl. Something No. 51 | 08XXXXXXXXXX | 38       |

3. The third is displaying a list of names of visitors who have borrowed a book. For example, there is a book with the title "Classical Mythology", that show a list of visitors who have borrowed the book

🕒 Example Output:

| name  |
|-------|
| Anto  |
| Cindy |

Notes:

- Use <http://sqlfiddle.com/> to do the experiment
- Attribute with DATE data type using "YYYY-MM-DD" format

Dataset references:

- (Book) <https://www.kaggle.com/saurabhbagchi/books-dataset>

Insert Query:

- INSERT INTO Books (id, title, author, year\_of\_publication, book\_status) VALUES (1, 'Classical Mythology', 'Mark P. O. Morford', 2002, 'available');
- INSERT INTO Books (id, title, author, year\_of\_publication, book\_status) VALUES (2, 'Clara Callan', 'Richard Bruce Wright', 2001, 'available');
- INSERT INTO Books (id, title, author, year\_of\_publication, book\_status) VALUES (3, 'Decision in Normandy', 'Carlo D\'Este', 1991, 'available');
- INSERT INTO Books (id, title, author, year\_of\_publication, book\_status) VALUES (4, 'The Mummies of Urumchi', 'E. J. W. Barber', 1999, 'available');
- INSERT INTO Books (id, title, author, year\_of\_publication, book\_status) VALUES (5, 'The Kitchen God\'s Wife', 'Amy Tan', 1991, 'available');
- INSERT INTO Visitors (id, name, date\_of\_birth, gender, address, phone\_number) VALUES (1, 'Budi', '1990-01-23', 'male', 'Jl. Something No. 51', '08XXXXXXXXXX');
- INSERT INTO Visitors (id, name, date\_of\_birth, gender, address, phone\_number) VALUES (2, 'Anto', '1990-01-23', 'male', 'Jl. Something No. 51', '08XXXXXXXXXX');
- INSERT INTO Visitors (id, name, date\_of\_birth, gender, address, phone\_number) VALUES (3, 'Cindy', '1990-01-23', 'female', 'Jl. Something No. 51', '08XXXXXXXXXX');
- INSERT INTO BorrowingHistory (id, book\_id, visitor\_id, borrowing\_date, return\_date) VALUES (1, 1, 2, '2006-01-15', '2006-01-20');
- INSERT INTO BorrowingHistory (id, book\_id, visitor\_id, borrowing\_date, return\_date) VALUES (2, 2, 3, '2006-01-19', '2006-01-21');
- INSERT INTO BorrowingHistory (id, book\_id, visitor\_id, borrowing\_date, return\_date) VALUES (3, 5, 3, '2006-01-23', '2006-01-30');
- INSERT INTO BorrowingHistory (id, book\_id, visitor\_id, borrowing\_date, return\_date) VALUES (4, 5, 2, '2006-02-05', '2006-02-08');
- INSERT INTO BorrowingHistory (id, book\_id, visitor\_id, borrowing\_date, return\_date) VALUES (5, 3, 1, '2006-02-06', '2006-02-10');
- INSERT INTO BorrowingHistory (id, book\_id, visitor\_id, borrowing\_date, return\_date) VALUES (6, 4, 1, '2006-02-11', '2006-03-15');
- INSERT INTO BorrowingHistory (id, book\_id, visitor\_id, borrowing\_date, return\_date) VALUES (7, 3, 2, '2006-02-15', '2006-03-25');
- INSERT INTO BorrowingHistory (id, book\_id, visitor\_id, borrowing\_date, return\_date) VALUES (8, 1, 3, '2006-03-31', '2006-04-25');