# Reader Log

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## Overview

## Database Outline

### Readers (Object Entity) Details of a reader (user) who may read books, queue books to be read, participate in a book club, and recommend books.

* + readerID: INT, auto-inc, not NULL, PK
  + name: VARCHAR(), not NULL
  + relations:
    - M:M Books through ReadingLog
    - M:M ReadingClubs through ClubRosters

### Books (Object Entity) Details of a book.

* + bookID: INT, auto-inc, not NULL, PK
  + title: VARCHAR(), not NULL
  + author: VARCHAR(), not NULL
  + year: DATE()
  + relations:

### ReadingClubs (Object Entity) Must be coordinated by one Reader, may specify a maximum roster size. Enrollment in a club’s roster serves as an interface to populate Recommendations or ReadQueues to groups of Readers.

* + clubID: INT, auto-inc, not NULL, PK
  + clubName: VARCHAR(), not NULL
  + coordinator: FK(Readers.readerID)
  + maxRosterSize: INT
  + relations:

### ReadingLog (Composite Transaction Entity) Records the status of a Book being read by a Reader.

* + logID: INT, auto-inc, not NULL, PK
  + readerID: FK(Readers.readerID), not NULL
  + bookID: FK(Books.bookID), not NULL
  + status: VARCHAR()
  + dateStarted: DATE()
  + dateCompleted: DATE()
  + relations:

### Recommendations (Transaction Entity) Using Recommendations, a Reader may see a list of suggested books by different Readers.

* + recommendedBy: FK(Readers.readerID), not NULL
  + recommendedTo: FK(Readers.readerID), not NULL
  + bookID: FK(BookID), not NULL
  + recommendationAccepted: BOOL
  + relations:

### ClubMembers (Composite Entity) Records membership in a club.

* + clubID: FK(ReadingClubs.clubID), not NULL
  + readerID: FK(Readers.readerID), not NULL
  + relations:

### ReadQueues (Composite Entity) Records books in a queue.

* + readerID: FK(Readers.readerID), not NULL
  + bookID: FK(Books.bookID) , not NULL
  + priority: INT, default = 1
  + relations:

## Entity-Relationship Diagram (ERD)