Scenario 1: Borrowing a Book in the Library

Consider the following process for handling borrowing a book in the Library.

A reader should be registered by a library secretary to borrow a book. The reader should provide personal details, contact information and a valid document to a secretary who creates an account for the reader. The registered reader can access the library database and search for books using their credentials.

A borrowing request is created when a reader wants to borrow a book. The Library allows two options to borrow a book: (i) take a book from the shelf and bring it right to the desk for the librarian to check out, or (ii) order a book online to pick up from a self-checkout machine.

If a reader creates a booking request online, the following process occurs. The created request has a type of "Online". If the requested book is available, a librarian is notified about the request. Then the librarian prepares the book for checkout, and delivers it to the self-checkout machine, notifying a reader about the request status change to "Ready to pick up". Additionally, the reader is informed about the deadlines for the book return. After, a reader can pick up a book in the machine that will result in changing the status of the order to "Checked out" and the status of the book — to "Borrowed".

If a reader prefers to conduct checkout with the help of a librarian, they should provide the document, and the librarian should create a booking request. The created request has a type of "On-site". Once the librarian has filled in the book and reader details, the notification about the deadlines for the book return is sent to the reader, the status of the order is set to "Checked out" and the status of the book — to "Borrowed".

A reader should use a self-checkout machine to return a book, signing in with his credentials. Once a book is inside the machine, the booking request changes the status to "Closed" and the book's status to "Returned". Once a day, a librarian retrieves returned books from the machine to place them in the storage room and changes the status of a book to "Available".