Issue Book - Sequence Diagram

Member → **Librarian**: Request book issue (Book ID)

Librarian → **Library System**: Verify member & book

Library System → **Database**: Fetch member & book details

Database ⇢ **Library System**: Details (status, availability)

Library System → **Library System**: Validate eligibility & availability

alt [Available & eligible]

Library System → **Database**: Create Transaction (issue)
Update inventory (decrement)

Database ⇢ **Library System**: Transaction ID

Library System ⇢ **Librarian**: Issue confirmed (Txn ID, Due Date)

Librarian ⇢ **Member**: Confirmation & due date

[Not available / not eligible]

Library System ⇢ **Librarian**: Issue declined (reason)

Librarian ⇢ **Member**: Decline & reason

Member   **Librarian**   **Library System**   **Database**