

Construct Use case Diagram, Activity diagram and Swimlane diagram based on the following scenario:

Scenario: Smart Library Self-Checkout & Return (SL-SCR)

Actor: Library Member

The Flow of Events

When a library member arrives at the self-service kiosk, they begin by scanning their digital membership card via their smartphone. The system prompts the member to enter a 4-digit security PIN. Once the system validates the credentials, the main dashboard appears with two primary options: "**Borrow Items**" or "**Return Items**."

- **To Borrow:** The member selects "Borrow Items" and places their stack of books on the RFID scanning pad. The system identifies all books simultaneously and displays a list on the screen. The member reviews the list and selects "Confirm." If any book has a "Hold" for another user or the member has unpaid fines over \$10, the system flags the item and instructs the member to see a librarian. Otherwise, the system updates the database and prints a receipt with the due dates.
 - **To Return:** The member selects "Return Items" and slides the books into the smart drop-box one by one. As each book passes the internal sensor, the system marks it as "Returned" and removes it from the member's active loans.
- Once the session is complete, the member selects "Logout," and the kiosk resets for the next user.