# System Operations

~~System creates a new user account~~

~~System prompts for credentials~~

~~System authenticates the user~~

~~System lists available audio books~~

~~System adds/removes an available audio book~~

~~System marks an audio book reserved/not reserved/checked in/checked out~~

~~System updates audiobook physical location~~

~~System checks if account is in good standing~~

~~System generates a report~~

~~System checks for expired reservations~~

System adjusts inventory levels

System displays error message  
System dispenses audiobook  
System opens receptacle to receive audiobook  
System moves audiobook to holding bin  
System terminates the session

**System Operation**

Name: System creates a new user account

Description: Generates a new account object based on user input

Actors: User, System

Trigger: User selects “Create New Account”

Inputs: User library card

Classes of objects involved: User, Kiosk

Precondition: User has library card

Postcondition: User has account

Outputs: User Object

**System Operation**

Name: System prompts for credentials

Description: Provides a short message requesting user credentials.

Actors: User, System

Trigger: User initiates session with kiosk

Inputs: kiosk, session

Classes of objects involved: User, Kiosk, and Session

Precondition: User has account

Postcondition: <none>

Outputs: <none>

**System Operation**

Name: System authenticates the user

Description: System provides a method for the user to enter their username and password.

Actors: User, System

Trigger: System prompts user for credentials

Inputs: username, password

Classes of objects involved: User, Kiosk, and Session

Precondition: User has account and kiosk has unauthenticated session.

Postcondition: User has an authenticated session

Outputs: success or failure

**System Operation**

Name: System lists available audio books

Description: System provides a user a browsable list of audio books in the kiosk.

Actors: User, System

Trigger: User authenticates

Inputs: <none>

Classes of objects involved: Kiosk, audiobook

Precondition: User has active, authenticated session on kiosk.

Postcondition: <none>

Outputs: <none>

**System Operation**

Name: System adds/removes an available audiobook

Description: System updates the internal database of audiobooks

Actors: User, System

Trigger: User checks out audiobook OR user checks in audiobook OR manager updates inventory

Inputs: audiobook

Classes of objects involved: User, Kiosk, Audiobook

Precondition: User has active, authenticated session on kiosk

Postcondition: <none>

Outputs: <none>

**System Operation**

Name: System marks an audio book reserved/not reserved/checked in/checked out

Description: System updates the internal database to reflect a new audiobook status

Actors: User, System

Trigger: User checks in/out audiobook OR user reserves/unreserves an audiobook

Inputs: audiobook, new status

Classes of objects involved: User, Kiosk, Audiobook

Precondition: User has active, authenticated session on kiosk

Postcondition: <none>

Outputs: <none>

**System Operation**

Name: System updates audiobook physical location

Description: System updates the internal database to reflect a new audiobook physical location

Actors: User, System

Trigger: User physically receives OR returns an audiobook

Inputs: User, audiobook, new status

Classes of objects involved: User, Kiosk, Audiobook

Precondition: User has active, authenticated session on kiosk

Postcondition: <none>

Outputs: <none>

**System Operation**

Name: System checks if account is in good standing

Description: System checks that user has no outstanding fines

Actors: User, System

Trigger: User checks out OR reserves an audiobook

Inputs: User, audiobook

Classes of objects involved: User, Kiosk, Audiobook

Precondition: User has active, authenticated session on kiosk

Postcondition: <none>

Outputs: Account standing status

**System Operation**

Name: System generates a report

Description: System summarizes database status and history into human-readable report

Actors: User, System

Trigger: Manager requests report generation

Inputs: User, Kiosk, Report type

Classes of objects involved: User, Kiosk, Audiobook

Precondition: User has active, authenticated session on kiosk

Postcondition: <none>

Outputs: Human-readable report

**System Operation**

Name: System checks for expired reservations

Description: System scans the database for expired reservations

Actors: System

Trigger: Periodic autonomous clock trigger

Inputs: <none>

Classes of objects involved: User, Kiosk, Audiobook

Precondition: <none>

Postcondition: <none>

Outputs: List of all expired reservations