# LRC LIBRARY: SERVICE MANAGEMENT APP

**CABRITO-MAGLENTE [8-JASMINE]**

# PROJECT TITLE:

**LRC LIBRARY: SERVICE MANAGEMENT** — A web program designed to help Students and faculty manage their LRC needs, making

It easier to plan services and avoid physical trips For simple tasks.

# PROBLEM STATEMENT:

Students and teachers often find it hard to manage Their library needs because they have to go to the LRC in person for simple tasks like reserving spaces, Borrowing items, or checking availability. This takes Up extra time and causes inconvenience, especially

With busy schedules. A program is needed to make these Services easier and more accessible online.

# PROJECT OBJECTIVES:

**The objective of the project is to design and develop an app that will:**

1. Ensure that the new app allows all students and teachers to successfully complete a service request (like booking or inquiry) on their first attempt.

2. The app must make doing library tasks (like finding out if a book is on the shelf) much faster compared to doing it in real life.

3. Tracking reservations and borrowed items by receiving a notification that indicates the correct place and status for every book and reservation sent by the LRC staff.

4. When the LRC has announcements, the app must relay the message to the users; the people of EVC.

5. We will use the app to send reminder messages two days before things are due. This must cause the number of late returns to drop.

# PLANNED FEATURES:

* Announcements: Send timely news about sudden library closures, new services, or other important updates.
* LRC Auditorium Reservations: Allow users to book the auditorium for school projects like presentations, group work, and role-playing.
* Printing Services: Provide real-time information on the availability of ink and paper.
* Borrowing: Let people reserve books, computers, and other items ahead of time.
* Reminders: Send automatic reminders to ensure borrowed items are returned on time.

# PLANNED INPUTS AND OUTPUTS:

Input (users):

User logs in successfully.

User selects 2 (Reserve Auditorium) from the menu.

User enters date and time for reservation.

User selects 3 (Borrow Item) and chooses a laptop with a return date.

User selects 5 (Check Reminders).

User selects 6 (Exit Program).

Output (system responses):

“Welcome to LRC Service Planner”

“Auditorium reservation confirmed for chosen date and time.”

“Item borrowed successfully. ”

“Reminder: You have an upcoming reservation and a borrowed item due on \*date\*”

“Goodbye!”

# LOGIC PLAN (PSEUDOCODE):

## START PROGRAM

CREATE empty list called Reservations CREATE empty list called Borrowed\_Items CREATE empty list called Announcements

FUNCTION Add\_Announcement PROMPT admin for Announcement Text

ADD Announcement Text to Announcements list END FUNCTION

FUNCTION Show\_Announcements

FOR each Announcement in Announcements list DISPLAY Announcement

## END FOR END FUNCTION

FUNCTION Reserve\_Auditorium PROMPT user for Date and Time

CHECK if Date and Time are already in Reservations IF not reserved THEN

ADD {Date, Time, “Auditorium”} to Reservations DISPLAY “Auditorium reservation confirmed”

## ELSE

DISPLAY “Auditorium not available, choose another slot” END IF

## END FUNCTION

FUNCTION Borrow\_Item PROMPT user for Item Name PROMPT user for Return Date

CHECK if Item is already borrowed IF available THEN

ADD {Item Name, Return Date} to Borrowed\_Items DISPLAY “Item borrowed successfully”

## ELSE

DISPLAY “Item not available” END IF

## END FUNCTION

FUNCTION Show\_Borrowed\_Items FOR each Item in Borrowed\_Items

DISPLAY Item Name and Return Date END FOR

## END FUNCTION

FUNCTION Reminder\_Check GET Today’s Date

FOR each Item in Borrowed\_Items

CALCULATE Days\_Left = Return Date – Today IF Days\_Left <= 1 THEN

DISPLAY “⚠ Reminder: Return “ + Item Name + “ tomorrow!” END IF

## END FOR END FUNCTION

REPEAT

DISPLAY Menu Options:

1. – View Announcements
2. – Reserve Auditorium
3. – Borrow Item
4. – View Borrowed Items
5. – Check Reminders
6. – Exit Program PROMPT user for choice

IF choice = 1 THEN

CALL Show\_Announcements ELSE IF choice = 2 THEN

CALL Reserve\_Auditorium ELSE IF choice = 3 THEN

CALL Borrow\_Item ELSE IF choice = 4 THEN

CALL Show\_Borrowed\_Items ELSE IF choice = 5 THEN

CALL Reminder\_Check ELSE IF choice = 6 THEN

DISPLAY “Goodbye!” EXIT PROGRAM

## ELSE

DISPLAY “Invalid choice. Try again.” UNTIL user chooses Exit

END PROGRAM