

SMART LIB (All Features)

OWNER PANEL (System Admin)

The Owner is the top-level account but only for business, subscriptions, and super admin control. Owner does NOT manage library operations.

1.1 Super Admin Account Control

1.1.1 Create Super Admin Account

Owner can create new super admin accounts with:

- Name
- Email
- Password

1.1.2 Suspend/Deactivate Super Admin

If the super admin is not performing well or misusing, owner can:

- Disable login
- Pause account
- Reactivate later

1.1.3 Reset Super Admin Password

Owner can manually set a new password for any super admin.

1.2 Subscription & Payment Management

1.2.1 Full Subscription Control

Owner decides:

- Subscription price
- Subscription duration (monthly, quarterly, yearly)
- Auto-renewal ON/OFF default
- Trial period (7-day free trial)

1.2.2 Payment Handling

- All student payments go directly to OWNER account
- Owner sees all financial reports
- Super admin and librarians cannot access financial data

1.2.3 Auto-Renewal

Students can enable:

- Auto-renew (automatic payment at plan end)

Owner manages:

- Failed auto-renewal rules
- Retry attempts

1.2.4 Refund Management

Owner can:

- Approve or deny refund requests
- Set refund policy

1.3 System Overview (View Only)

Owner can view:

- Total students
- Total librarians
- Total libraries
- Subscription usage
- Daily system activity summary

Owner **cannot edit anything** in library settings from here.

1.4 System Health Monitoring

Owner sees:

- Server uptime
- Error logs
- System status
- Load on database

Only view — no modification.

2. SUPER ADMIN PANEL

Super Admin controls internal library operations, system-level rules, and manages librarians + students.

2.1 Library Management

2.1.1 Create Library

Add library details:

- Library name
- Address
- Timings
- Rules
- Contact info

2.1.2 Manage Floors

- Add unlimited floors
- Rename floors
- Set floor types (quiet zone, discussion area, girls-only floor, boys-only floor, mixed)

2.1.3 Seat Layout Creation

- Drag-and-drop seat arrangement
- Add seat numbers
- Adjust spacing
- Mark zones
- Set seat type (open seat, group seat, cabin seat)

2.1.4 Assign Librarians

- Assign one librarian to multiple libraries
- Assign multiple librarians to one library
- Modify librarian access roles

2.2 System Configuration (Super Admin Only)

Super admin controls ALL system behavior.

2.2.1 Booking Rules

- Max booking time
- Seat extension rules

- Minimum time required for extension
- Auto-cancel rules for late check-in
- Smart queue behavior
- No-show time limit

2.2.2 Check-in/Check-out Rules

- QR scan requirement
- Maximum delay time
- Auto-check-out rules
- Warning system for fake check-ins

2.2.3 Notification Settings

- Mobile push notifications
- Email notifications
- Reminder frequency

2.2.4 Event Settings

- Types of events allowed
- Maximum participants
- Approval workflow

2.3 Librarian Management

- Add new librarian
- Assign librarian to multiple libraries
- Password management
- Access permissions
- View librarian performance

2.4 Student Management

Auto signup approval

(OTP + CRN checking system handles this.)

Super Admin can:

- View student list
- Block/unblock student
- View level breakdown (PRC, CAP, Final)
- View attendance and misuse
- Track habit violations

2.5 Analytics Dashboard

2.5.1 Heatmap

Shows which seats are used the most during:

- Morning
- Evening
- Peak hours

2.5.2 Peak Times

Identifies:

- Busiest hours
- Quiet hours
- Most used floors

2.5.3 Level-wise Usage

Super Admin sees usage by:

- PRC
- CAP
- Final students

2.5.4 Smart Queue Analytics

- Queue waiting time average
- Queue overflow
- Seat utilization
- Abandon rate

2.5.5 AI Resource Optimization

AI suggests:

- Add more seats
- Reduce seats in low-usage areas
- Change timings
- Add more outlets, lights, or quiet rooms
- Rebalance floors

2.6 Help & Support (Librarian ↔ Super Admin)

- Ticket system
- Chat
- Issue assignment
- Issue history

3. LIBRARIAN PANEL

Librarian manages all daily library operations.

3.1 Floor & Seat Management

3.1.1 Add Multiple Floors

- Add, rename, delete floors
- Set floor capacity

3.1.2 Seat Layout Design

- Drag & drop seat builder
- Set seat zones
- Mark maintenance seats
- Add/remove seats
- Group seat management

3.1.3 QR Code Management

- Unique QR per seat
- Print QR
- Replace QR
- Expired QR handling

3.2 Seat Monitoring

Real-time dashboard:

- Occupied seats
- Free seats
- Reserved seats
- No-show alerts
- Students overstaying

Auto Swap

If student does not check in on time:

- Librarian gets notification
- Seat auto-changes to next queued student

3.3 Smart Queue Management

- View waitlist
- Move student up/down
- Assign seat manually
- Cancel queue entries

3.4 Attendance

- View check-in/check-out logs
- Mark attendance manually (special cases)
- Handle fraud alerts

3.5 Events

- Create events
- Approve event participation
- Mark event attendance

3.6 Level-wise Student Usage

(Library-specific only)

- PRC usage
- CAP usage
- Final usage

3.7 Communication & Reports

- Chat with super admin
- Report issues
- Student complaints

3.8 AI Analytics

- Seat heatmaps
 - Peak times
 - Floor performance
 - Recommendations for better management
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4. STUDENT PANEL

The most feature-rich panel.

4.1 Signup & Login

4.1.1 Signup

- Enter CRN
- Enter phone number
- System sends 4-digit OTP
- CRN table checks if student exists
- If match → student auto-approved

4.1.2 Select CA Level

- PRC
- CAP
- Final

4.1.3 Free Trial

- One-time 7-day free trial
- Cannot be used again

4.2 Subscription

- Buy subscription
- Auto-renew option
- Subscription expiry warnings
- History of past subscriptions
- Plan upgrade/downgrade

4.3 Seat Booking System

4.3.1 View Seat Layout

- Floor selector
- Seat availability (colors)

4.3.2 Book Seat

- Pick seat
- Confirm booking
- Countdown timer until check-in

4.3.3 Check-in

- Scan QR

- Check-in success
- Timer starts

4.3.4 Check-out

- Manual check-out
- Auto-check-out

4.3.5 Extend Seat

- Extend if time >10 min remaining
- Only until library closing
- No approval required

4.4 Smart Queue

- Join queue
- Leave queue
- Notification when seat is free
- Auto-seat allocation

4.5 Attendance & Study Tracking

4.5.1 Attendance

- Daily attendance
- Monthly attendance
- Streaks

4.5.2 Study Hours

- Total hours
- Daily, Weekly, Monthly graphs

4.6 Productivity Tools

4.6.1 Pomodoro Timer

- Focus session
- Short break
- Long break
- Auto cycles

4.6.2 Distraction Blocker

During focus mode:

- Blocks apps
- Blocks websites
- Mutes notifications

- Can whitelist apps/sites

4.6.3 Habit Tracker

- Add habits
- Daily tasks
- Habit streaks
- Progress reports

4.6.4 Study Streaks

- Count consecutive days
- Break streak alerts
- Milestones & badges

4.7 Digital Book Tools

4.7.1 Reading Analytics

- Reading time
- Chapters completed
- Highlight history

4.7.2 Offline Mode

- Download books offline
- Notes saved offline
- Auto-sync when internet returns

4.8 Group Chat / Community

- Anyone can create group
- Creator becomes admin
- Public group → join instantly
- Approval group → admin approves

Admin Controls:

- Chat ON/OFF
- Only admin can post (announcement mode)
- Remove members

4.9 Events

- Upcoming events
- Join event
- Event reminders
- Attendance badge

4.10 Notifications

- Seat booked
- Queue ready
- Time almost over
- Subscription ending
- Event reminders
- Pomodoro finished
- Habit reminders