

Library Management: Phase 6: User Interface Development

Introduction

This phase focuses on building an intuitive Lightning experience for different library roles (Teacher, Student, Librarian/Admin).

Using Lightning App Builder, Record Pages, Tabs, Home Page Layouts, Utility Bar, plus a custom LWC and Apex integration, a seamless UI was delivered to every user type.

1. Lightning App Builder

- Customized Pages for Each Role: Different Lightning Record Pages were designed for Book/Resource – Teacher View and Book/Resource – Student View (and optionally Librarian/Admin View).

Role-Based Components: Each page displays only the components relevant to that specific role, e.g.

– Teacher: can upload resources, create assignments, view students' borrowing history.

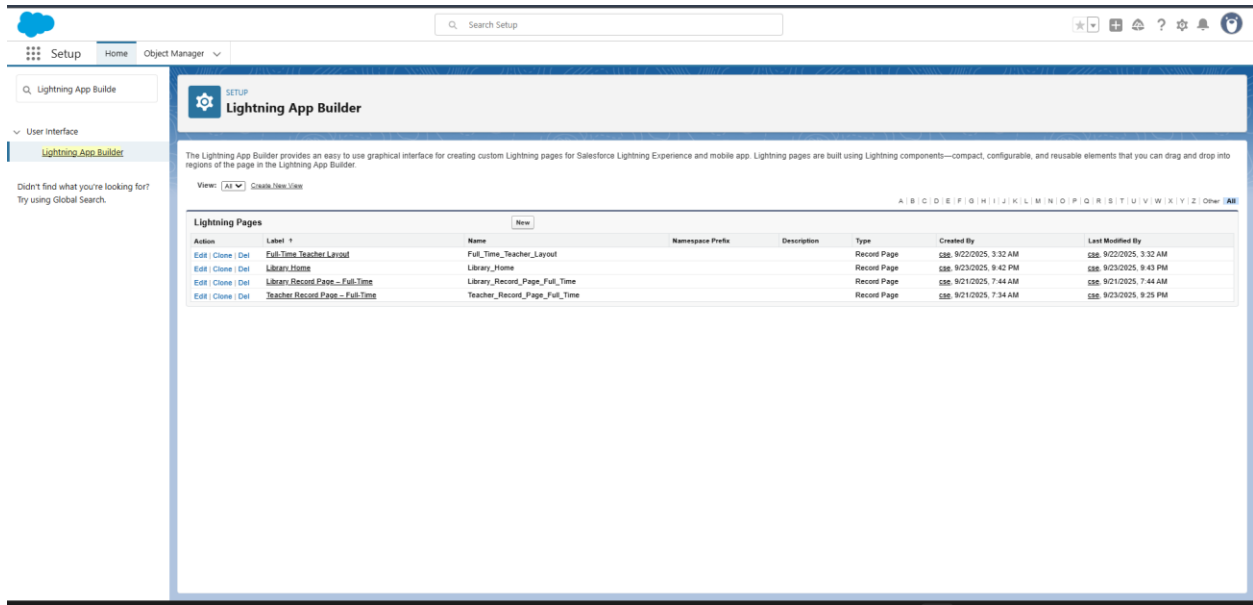
– Student: can search books, borrow/return, view personal borrowing history.

– Librarian/Admin: can add/edit/delete books, manage stock, approve requests.

- Tabs & Home Layouts: Tabs and Home Page Layouts were set up separately for Teacher, Student, and Librarian/Admin so each profile lands on the correct workspace.

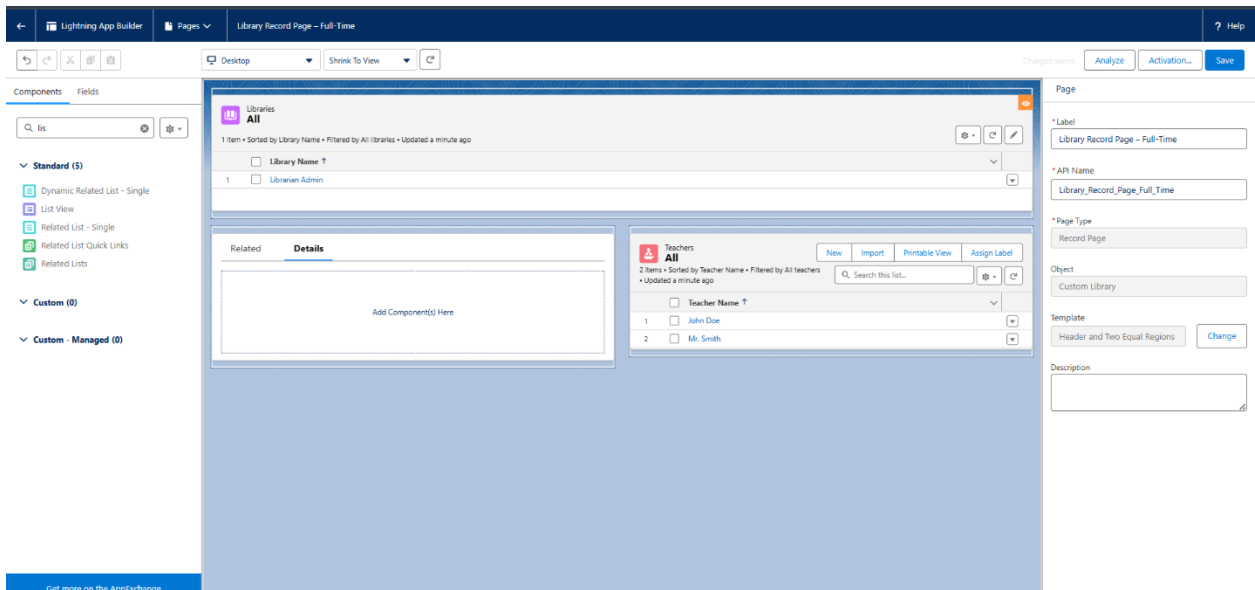
Utility Bar: Added quick-access actions and shortcuts in the Utility Bar for commonly used features by each role, e.g.

Librarian/Admin: "Add New Book," "View Overdue Items," "Send Notifications."

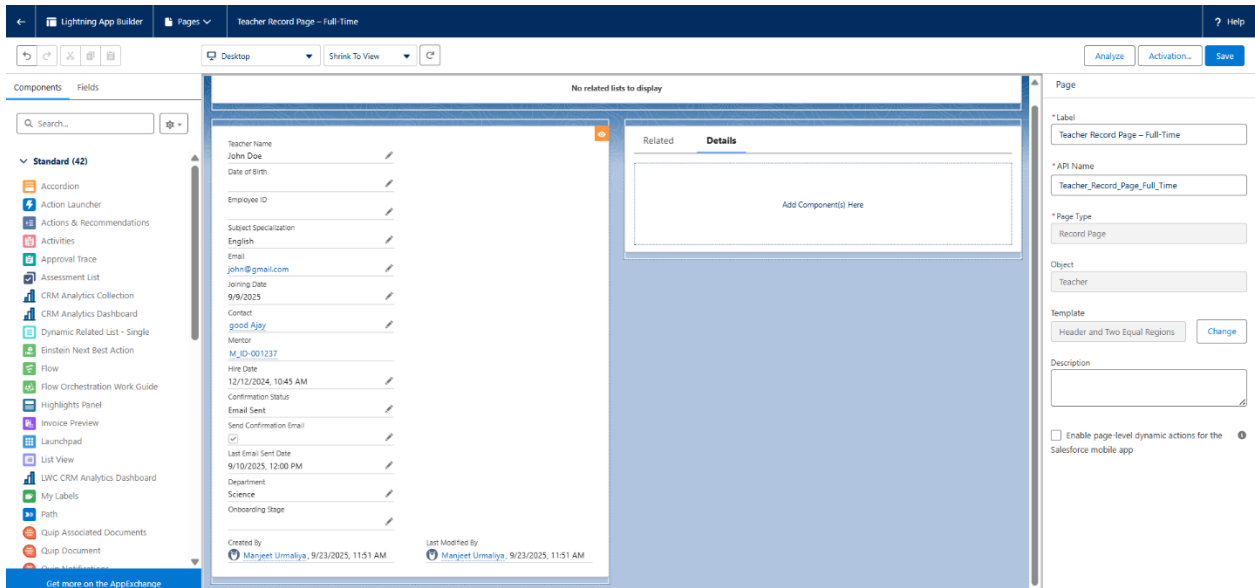


2. Record Pages (Teacher & Student Views)

- Teachers need quick access to class resources and student borrowing history. Students need an easy way to browse and request library materials. Two record pages were created with appropriate components:
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- Library Resource – Teacher View: shows resource summary, related student borrow/return history, and an upcoming assignments/resources LWC.
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- Library Resource – Student View: optimized for quick browsing, book request/renewal, and viewing personal borrowing history.
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- Activated per profile/record type so each user sees the correct page automatically.



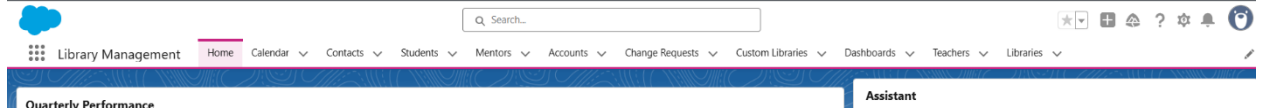
Library(Record Page)



Teacher (Record Page)

3. Tabs

All major library objects (Books/Resources, Borrow Requests, Students/Teachers, Classes) were exposed as tabs in the Library Management Lightning App so Teachers, Students, and Librarians can navigate quickly to the areas they need.



4. Home Page Layouts

A custom Library Management Home Page was built that displays dashboard components such as Upcoming Book Returns, Recent Borrow Requests, Popular Books, and Overdue Items Report Chart to give Teachers, Students, and Librarians a real-time view of library activity.

