Phase 7 – Integration & External Access (Smart Education Portal)
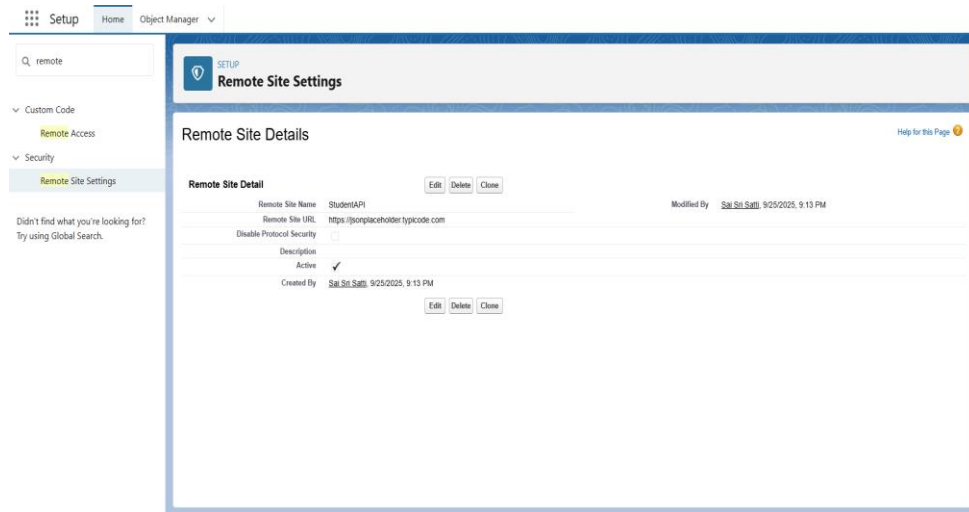
Overview

Phase 7 focuses on integrating Salesforce CRM with external educational platforms and enabling secure access for students, parents, and faculty. This phase ensures seamless connectivity with third-party applications (payment gateways, LMS, scheduling tools) while maintaining performance and security.

Key Tasks and Enhancements

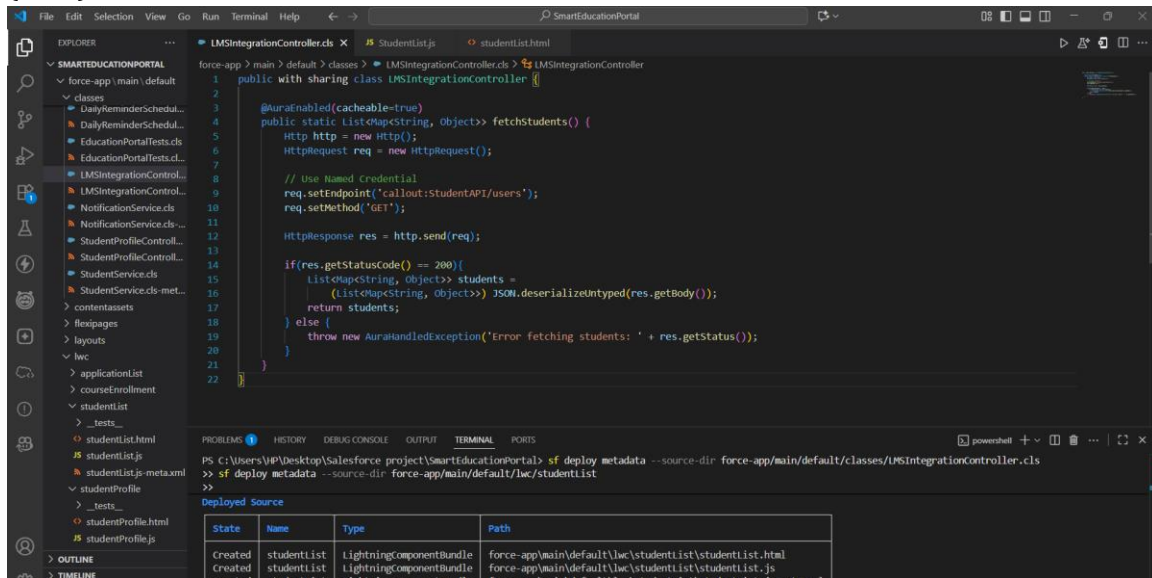1. External API Integration
   - Integrated Salesforce with third-party Learning Management Systems (LMS) to fetch course data dynamically.
   - Developed Apex controllers for handling API callouts (student attendance, course completion).

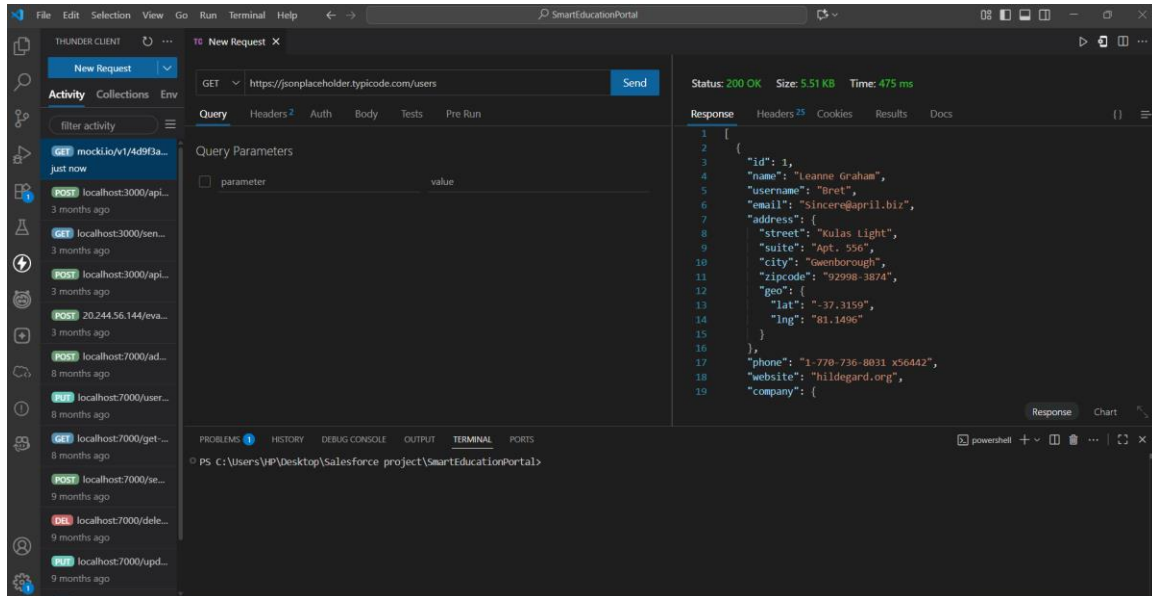2. Student Data Synchronization
- Synced enrollment and academic records between Salesforce and LMS.
- Displayed student progress, grades, and attendance using Lightning Web Components
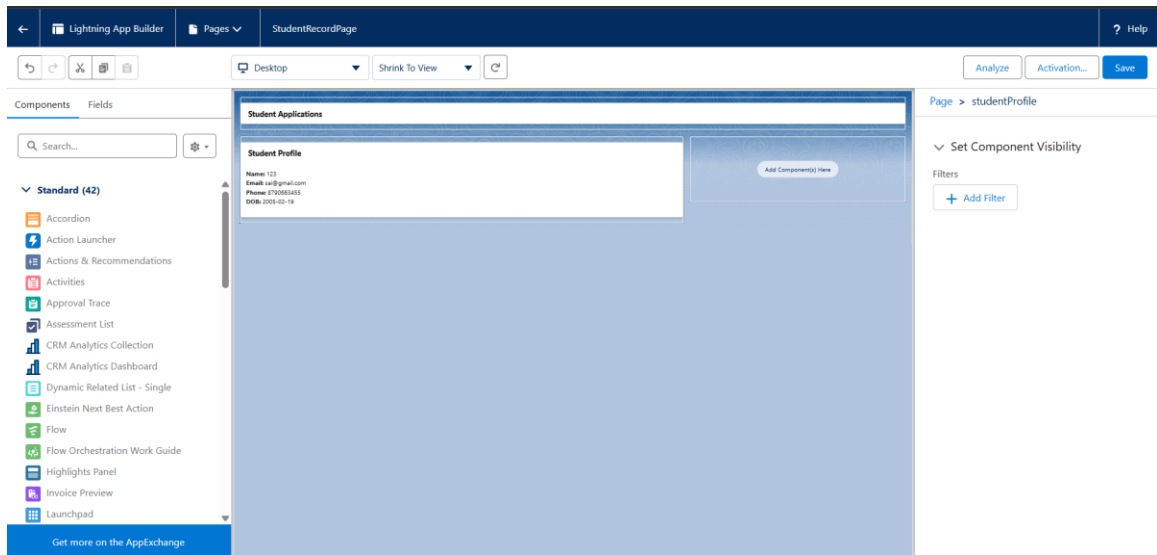
(LWC).

3. Secure External Access
- Enabled HTTPS-based connections for all integrated systems.
- Configured profiles, permission sets, and OAuth for role-based access (students, faculty, parents).
- Applied best practices to prevent unauthorized access to student records.

4. Enhanced UI/UX
- Built responsive LWCs to display integrated data.
- Applied SLDS and custom CSS for a consistent education portal theme.
- Ensured user-friendly dashboards for faculty and admissions officers.

Tools & Technologies Used

- Lightning Web Components (LWC) – Real-time external data display
- Apex Controllers – Callouts and logic
- Salesforce Remote Site Settings & Named Credentials – Secure API connections
- Third-party APIs – LMS, Payment Gateway, Scheduling Tools
- SLDS & Custom CSS – Portal branding and responsive UI