

Student Management System Using Salesforce CRM

Phase 1: Problem Understanding & Industry Analysis

1. Requirement Gathering

Educational institutions require a system to manage student details, course enrollments, attendance, grades, and fees in a centralized manner. The requirements were gathered from administrators, teachers, and students to identify challenges in manual management.

2. Stakeholder Analysis

- **Students** – Need easy enrollment, grade tracking, and fee updates.
 - **Teachers** – Need to record attendance, manage grades, and monitor performance.
 - **Administrators** – Require centralized control over student data, reporting, and fee collection.
 - **Parents/Guardians (Future)** – Require visibility into student performance and attendance.
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3. Business Process Mapping

- **Student Admission** → Creation of student record.
 - **Course Enrollment** → Mapping students to multiple courses.
 - **Attendance Tracking** → Daily attendance marking per course.
 - **Grade Management** → Entering marks and calculating GPA.
 - **Fee Management** → Recording payments, balances, and due alerts.
 - **Reporting & Analytics** → Generating performance, fee, and attendance reports.
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4. Industry-specific Use Case Analysis

- Current systems in schools and colleges rely on **spreadsheets/manual records**, causing redundancy and errors.
- Industry trend is shifting to **cloud-based CRMs** like Salesforce for data accuracy and accessibility.
- Similar use cases:
 - University student portals.

- Training centers managing course enrollments.
 - Coaching institutes tracking performance.
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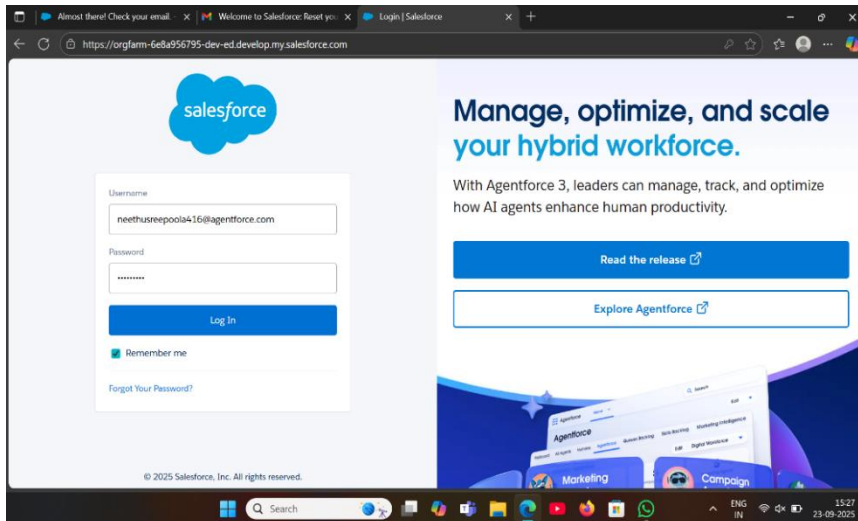
5. AppExchange Exploration

- Explored Salesforce **AppExchange** solutions for education management.
- Found apps like:
 - **Salesforce Education Cloud** – Comprehensive education CRM.
 - **Student Success Hub** – Focused on K-12 student outcomes.
 - **Attendance & Fee Management Apps** – Useful but often paid solutions.
- Decided to **build a custom Student Management System** tailored for specific institutional needs instead of relying fully on prebuilt paid apps.

Phase 2: Org Setup & Configuration – Student Management System

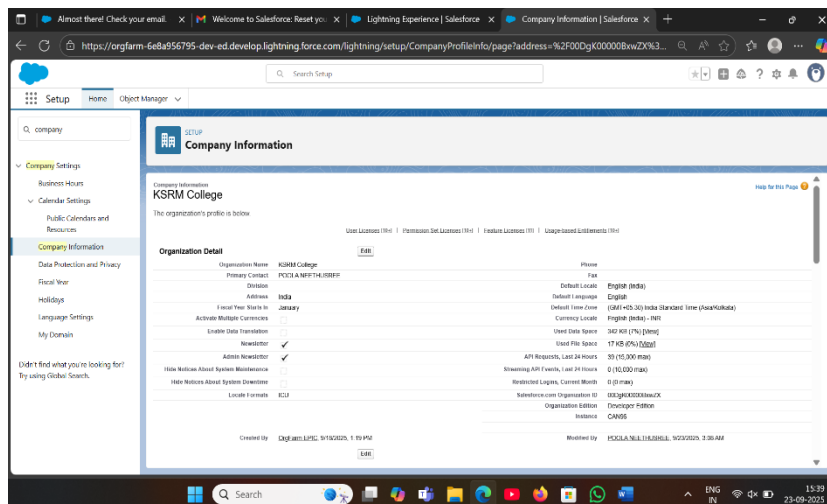
1. Salesforce Edition

- **Developer Edition (Dev Org)** used for project setup.



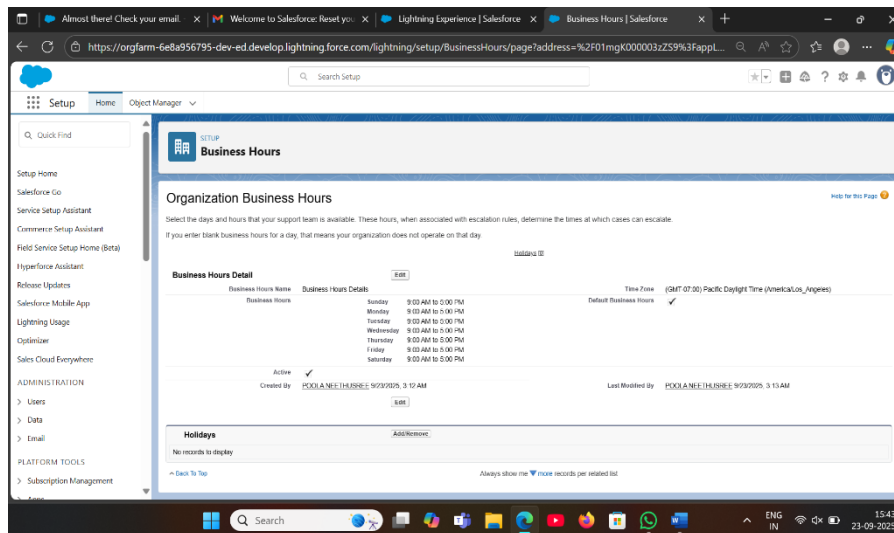
2. Company Profile Setup

- Configured **Institution Name, Address, Default Time Zone, Currency, and Locale**.

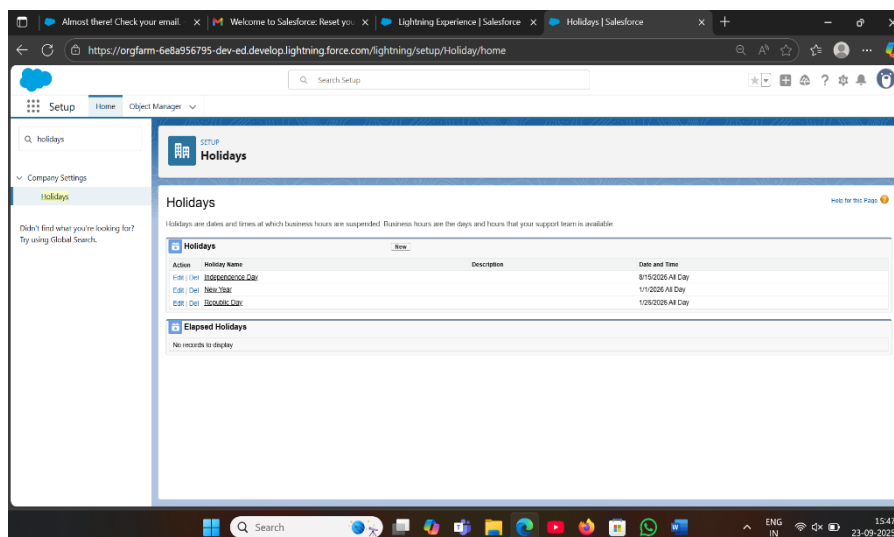


3. Business Hours & Holidays

- Defined **Standard Business Hours (9 AM – 6 PM, Mon–Sat)**.

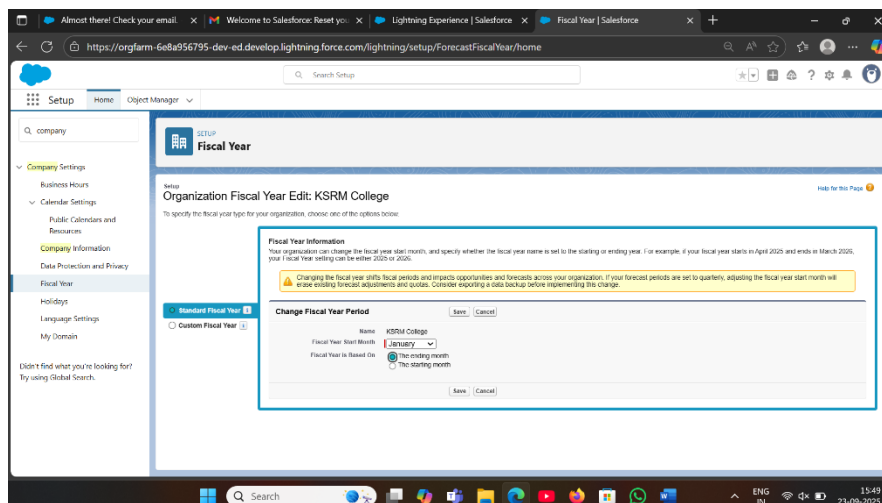


- Added **holidays** (e.g., Independence Day, New Year).



4. Fiscal Year Settings

- Configured **Standard Fiscal Year** (Jan–Dec).

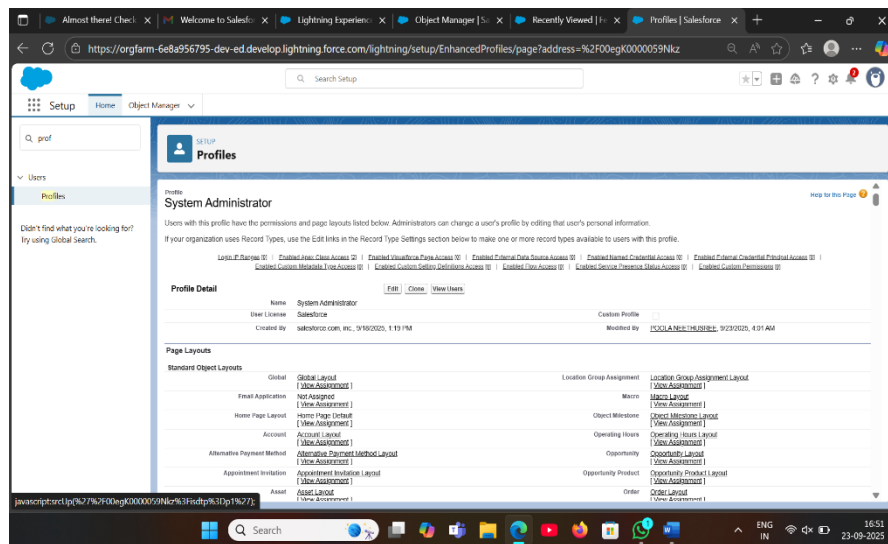


5. User Setup & Licenses

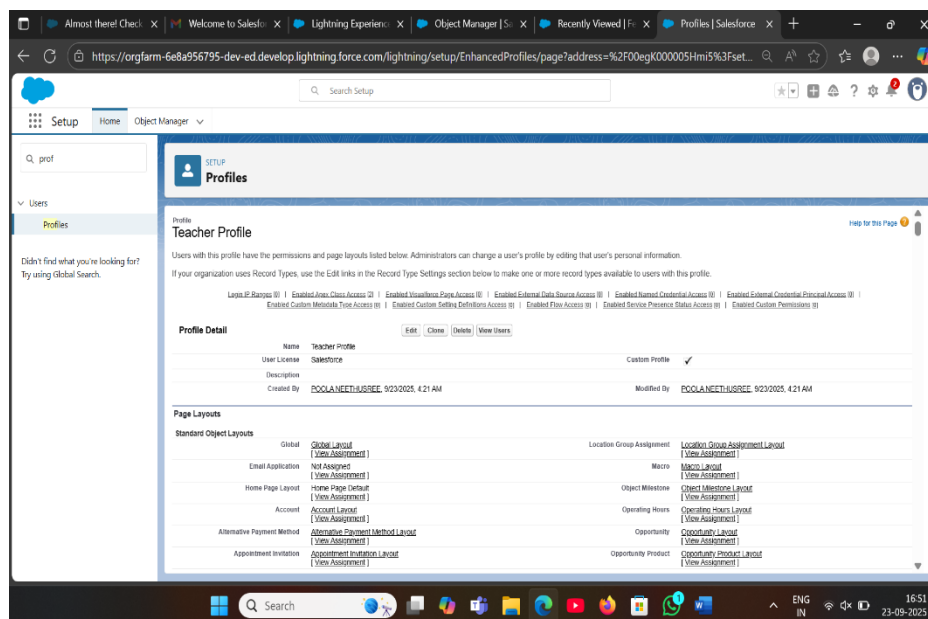
- Created sample users with **Salesforce licenses**:
 - System Administrator** – Full access.
 - Faculty User** – Limited teaching access.
 - Student User** – Read-only/student data access.

6. Profiles

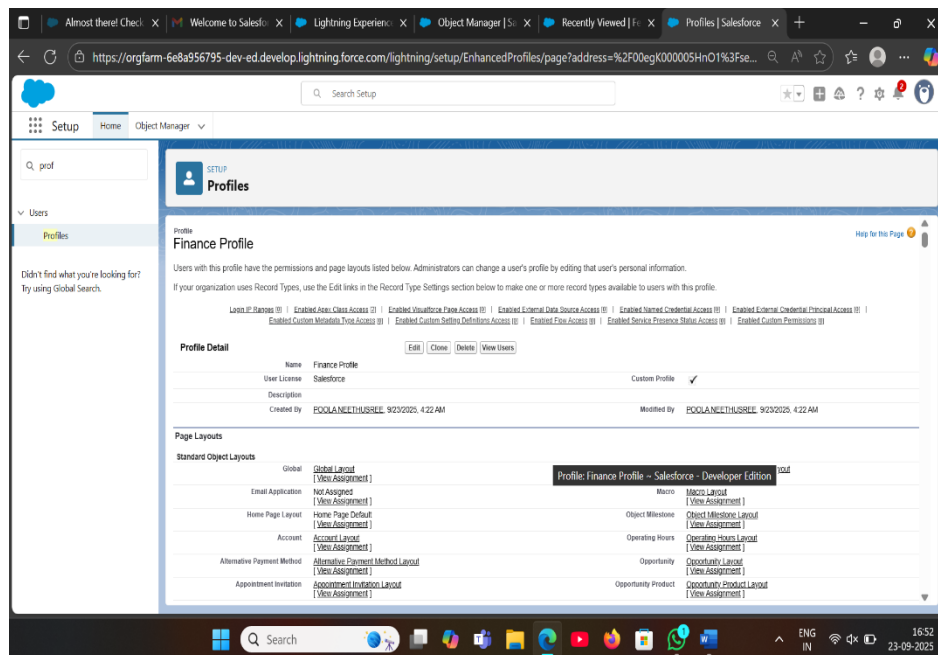
- Created/Modified Profiles:
 - System Administrator** (default full access).



- Teacher Profile** – Access to Students, Courses, Attendance, Grades.

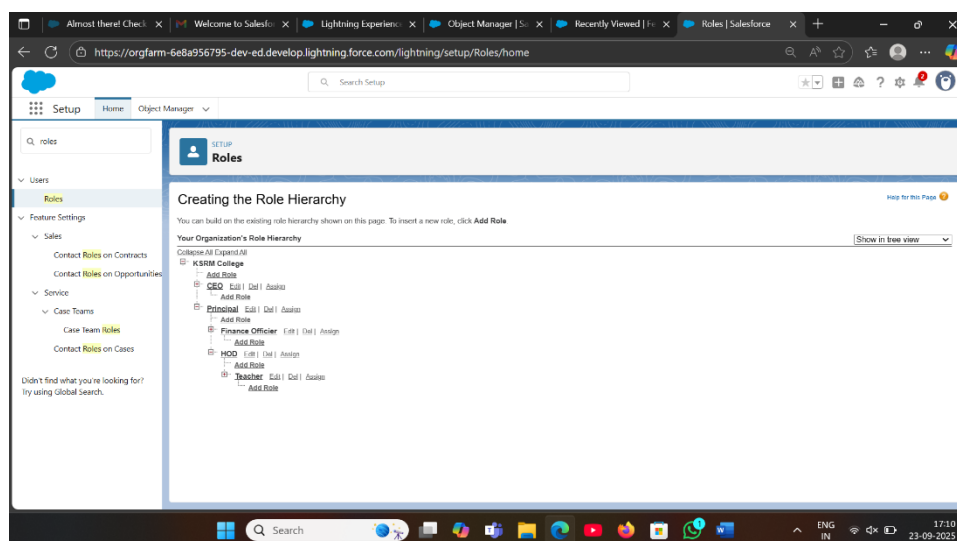


- **Finance Profile** – Access to Fees object.



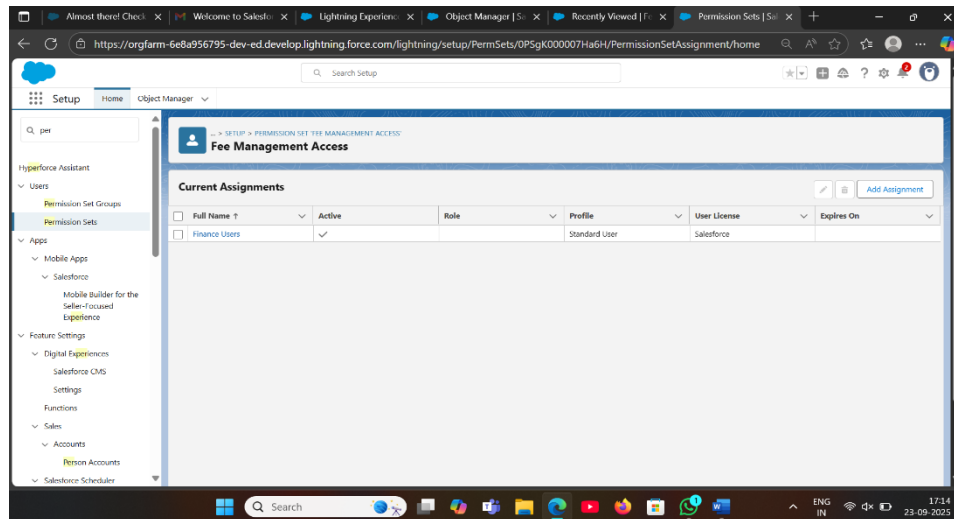
7. Roles

- Defined Role Hierarchy:
 - **Principal (Top Role)**
 - HOD
 - Finance Officer
 - Teacher



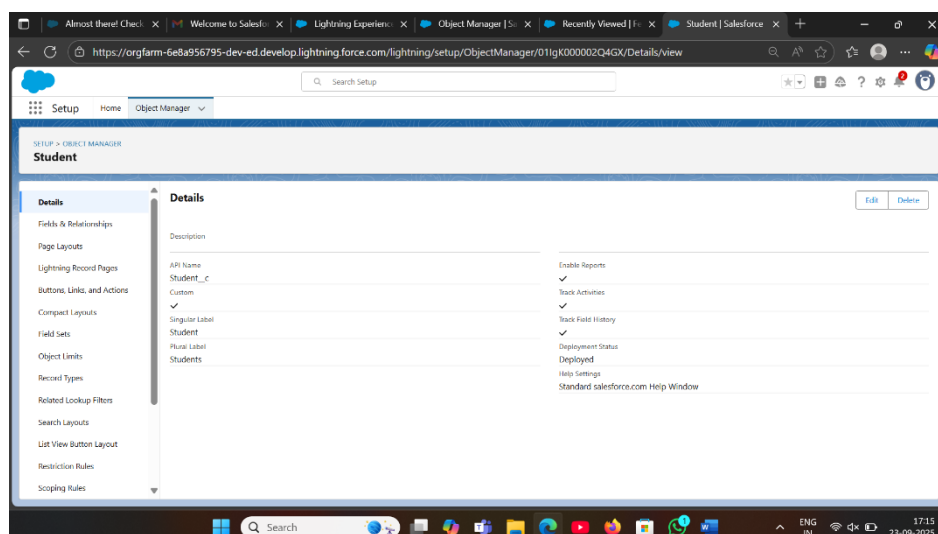
8. Permission Sets

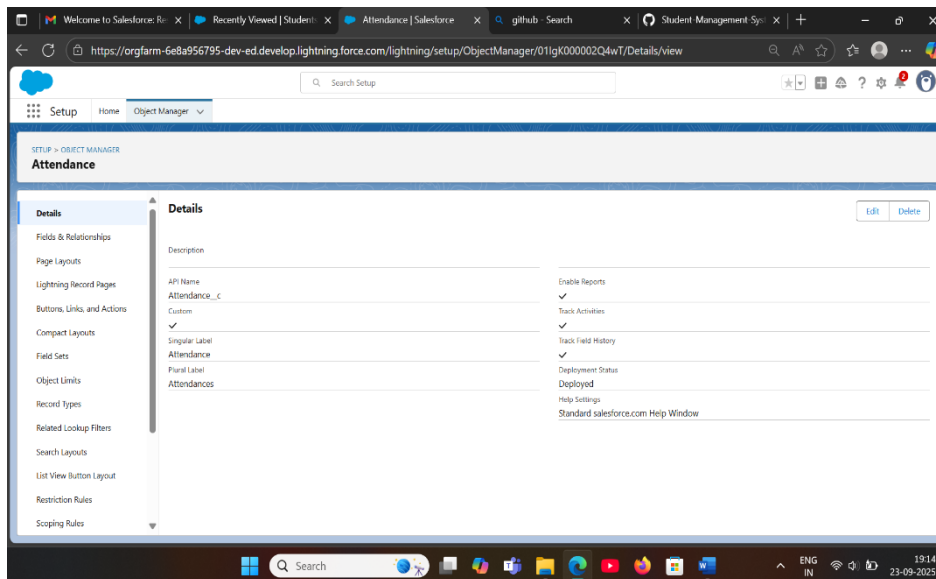
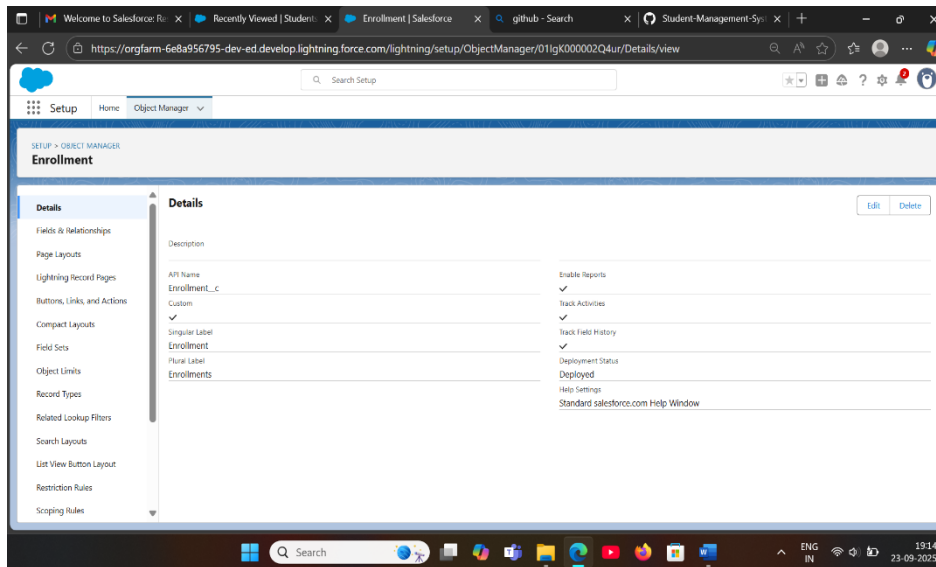
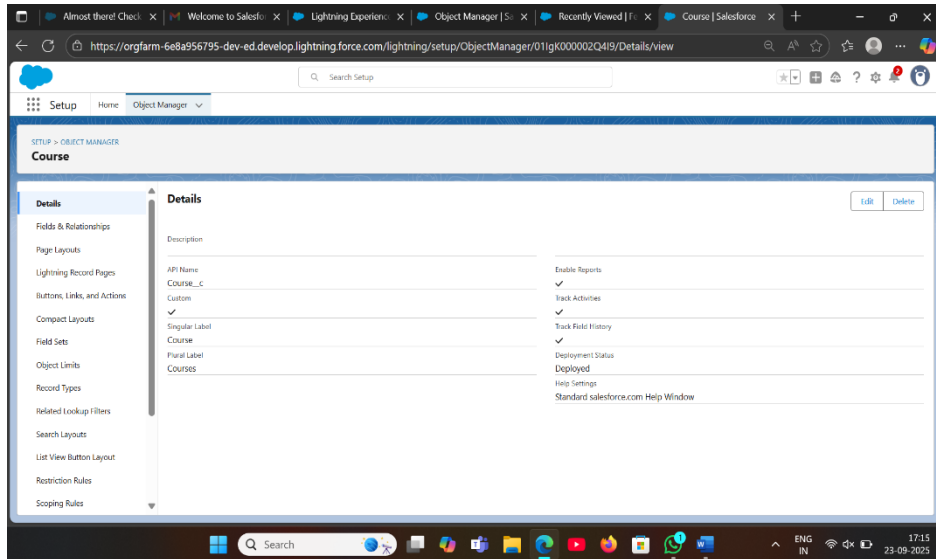
- Created Permission Sets for additional access:
 - **Report Access** – Extra reporting permissions.
 - **Fee Management Access** – Extended access to Fees object.

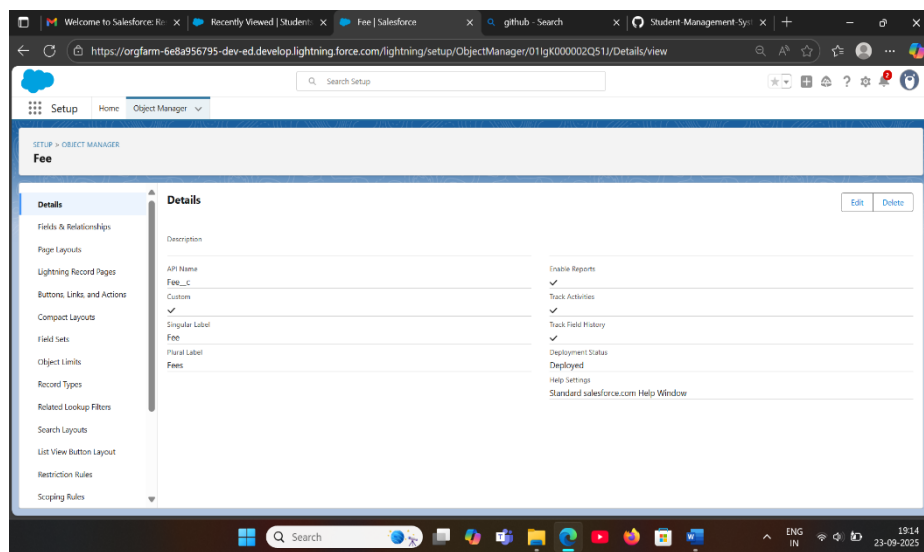
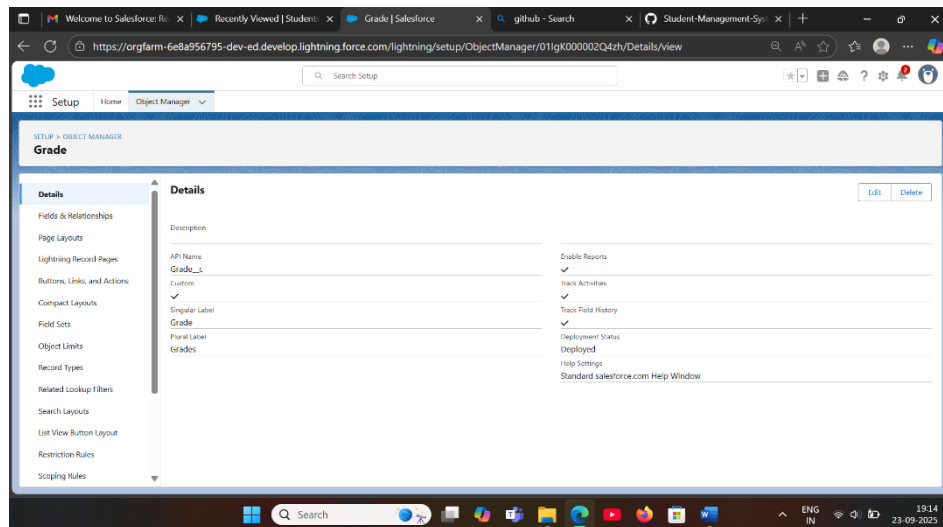


9. Objects Created

- **Student (Custom Object)** – Manage student details.
- **Course (Custom Object)** – Store course information.
- **Enrollment (Junction Object)** – Relationship between Student & Course.
- **Attendance (Custom Object)** – Track daily student attendance.
- **Grades (Custom Object)** – Store marks, grades, GPA.
- **Fees (Custom Object)** – Manage payments and pending balances.

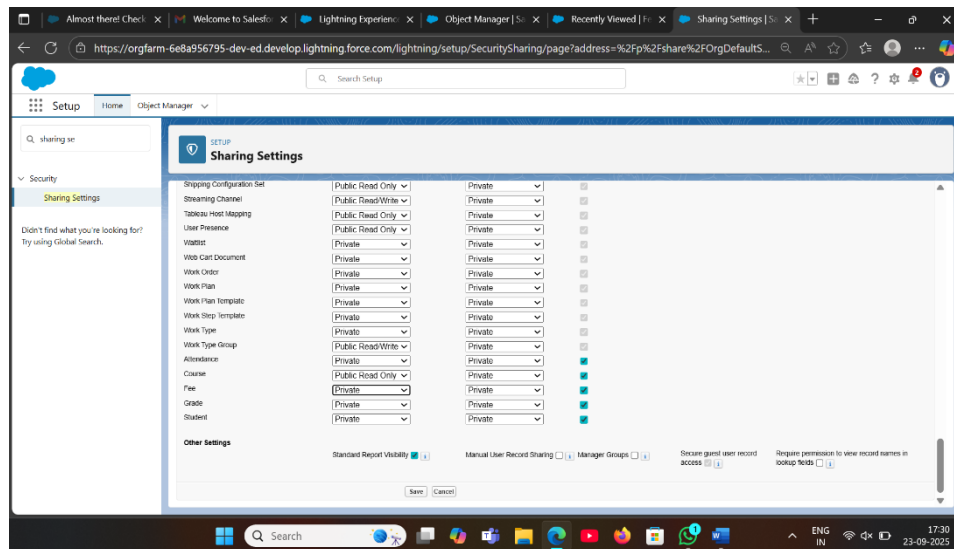






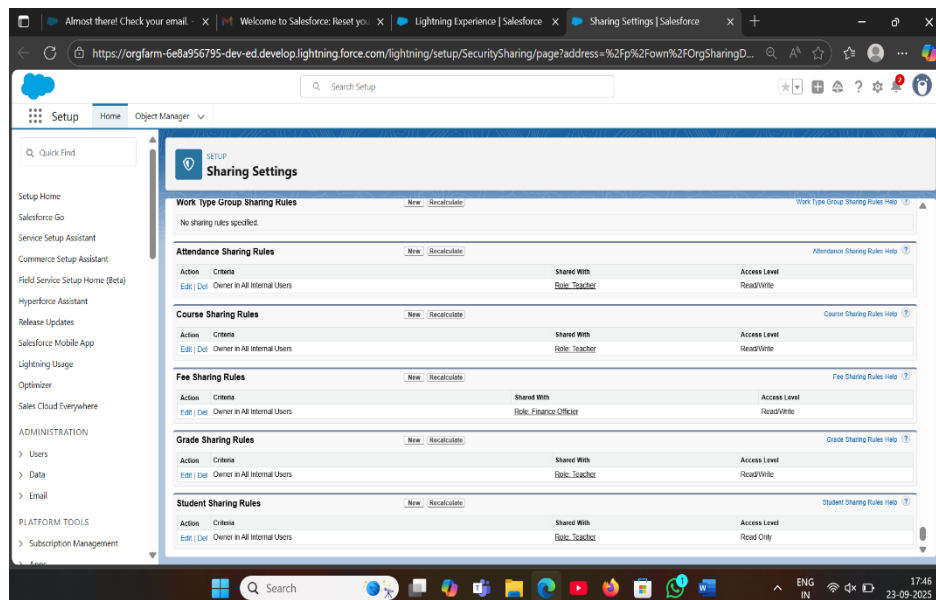
10. OWD (Org-Wide Defaults)

- Student → Private
- Course → Public Read Only
- Enrollment → Private
- Attendance → Private
- Grades → Private
- Fees → Private



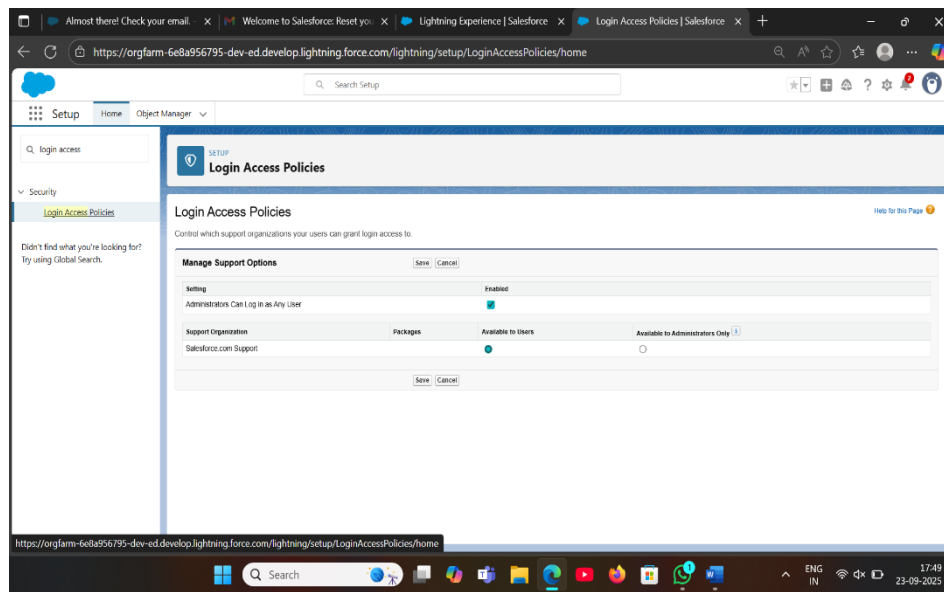
11. Sharing Rules

- Shared **Courses** with all Faculty.
- Shared **Student Records** read-only with Faculty (except Finance objects).
- Finance users granted access to **Fees** object.



12. Login Access Policies

- Enabled **Administrators Can Log in as Any User**.
- Configured **Trusted IP Ranges** for secure login.



13. Dev Org Setup

- Enabled **Dev Hub** in Developer Org.
- Connected CLI:
- `sf org login web --set-default-dev-hub --alias DevHub`

14. Sandbox Usage

- **Not available** in Developer Edition.
- Documented sandbox usage for real-world projects (Dev, Test, UAT).

15. Deployment Basics

- Practiced deployment commands:
- `sf project retrieve start --manifest manifest/package.xml -o DevHub`
- `sf project deploy start --target-org ScratchOrg`
- Source code and configuration stored in **GitHub repo** for version control.