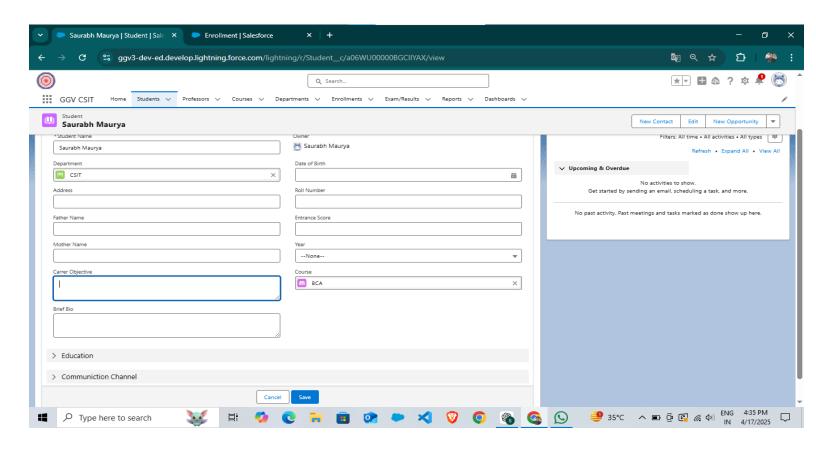
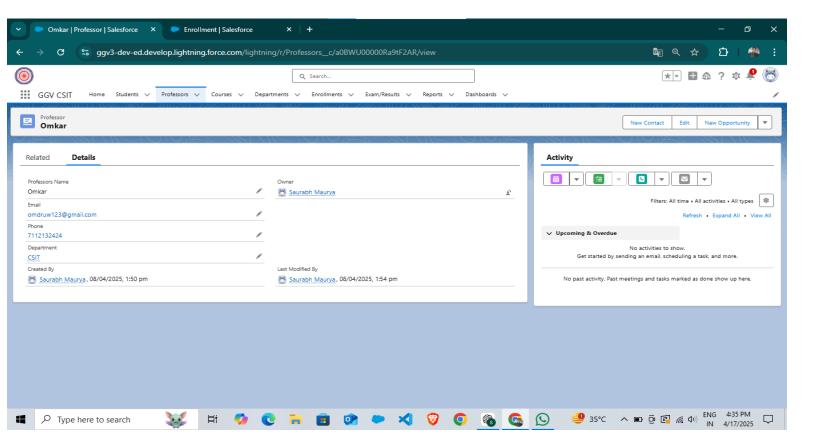
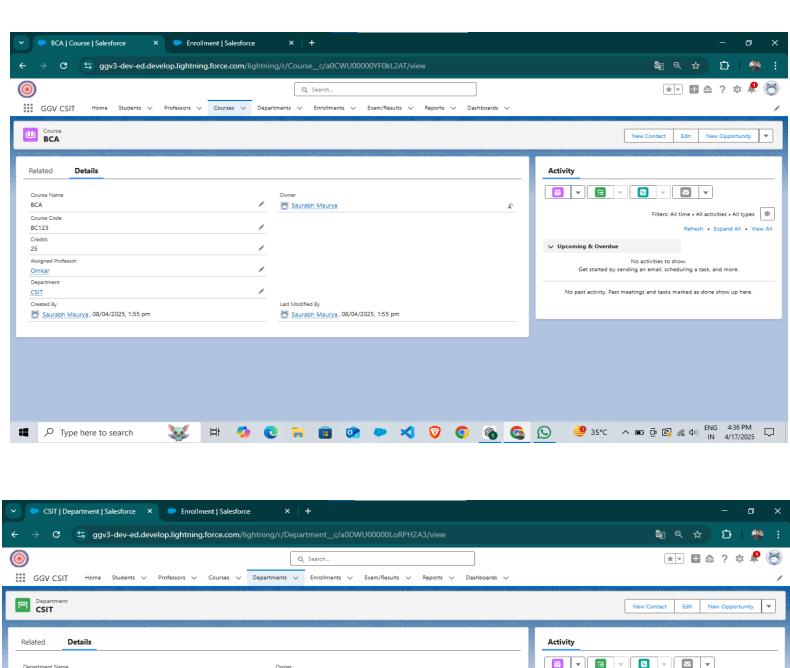
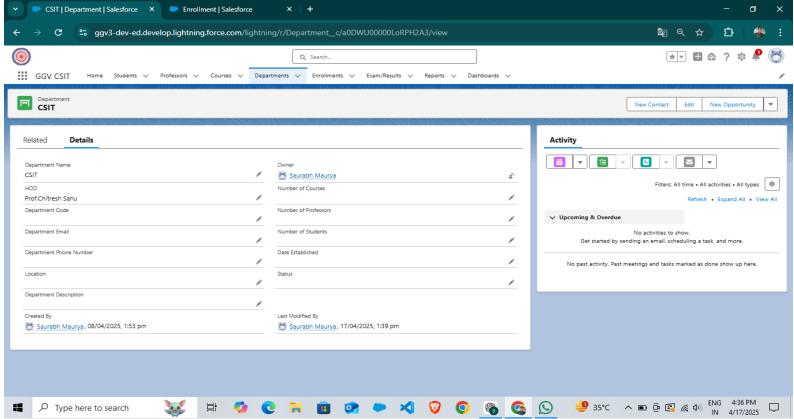
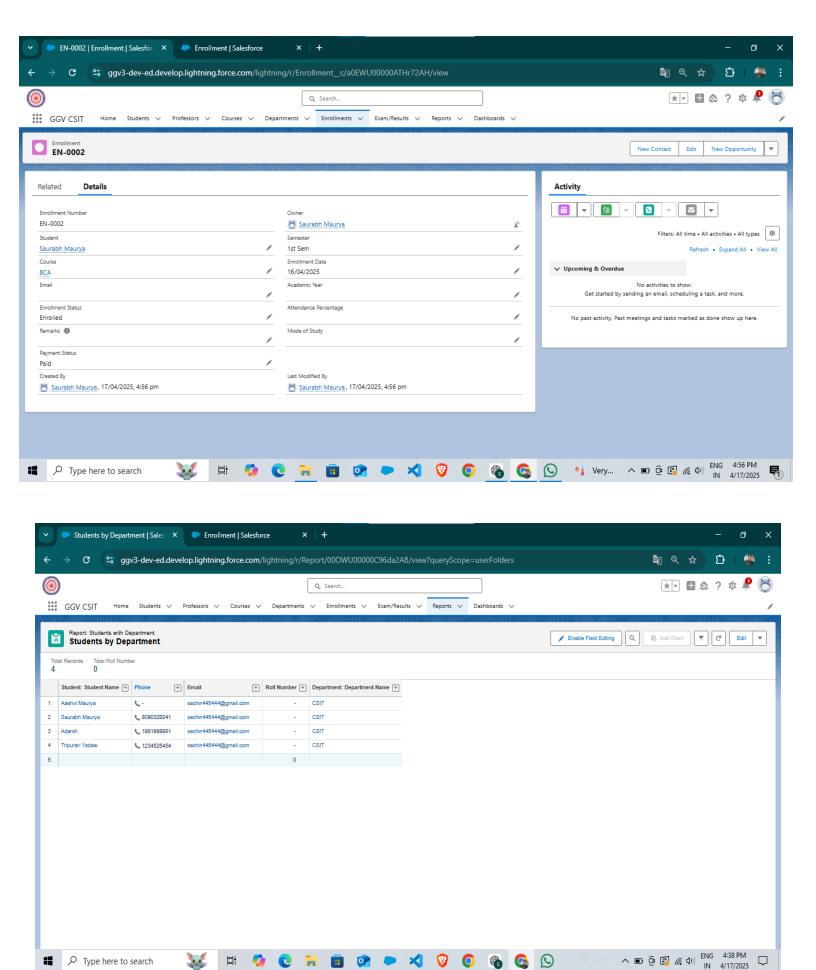
## **CSIT GGV**

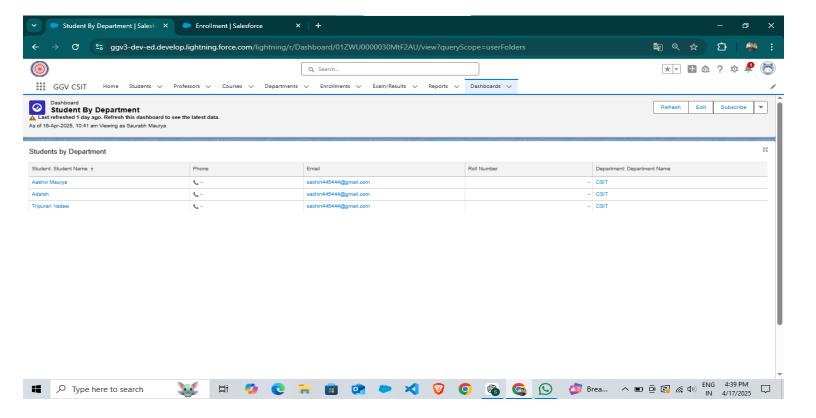












### GGV CSIT Management System

#### **Project Overview**

The GGV CSIT Management System is a comprehensive University Management application built on the Salesforce platform. It is tailored for the Department of Computer Science & IT (CSIT), Guru Ghasidas Vishwavidyalaya (GGV). The system streamlines student, faculty, course, and departmental operations through automation, structured data management, and real-time interactions.

# Project Architecture & Technologies

Platform: Salesforce

Tools: Lightning Web Components (LWC), Apex, Flows, Validation Rules, Process Builder

Custom Objects: Student, Course, Faculty, Department, Enrollment, Attendance

User Roles: Admin, Faculty, Student

Core Objects and Their Relationships

Student Object

Fields: Name, Roll No, Email, Department, Semester, Enrollment Status

Relationship: Lookup to Department, Master-Detail with Enrollment

Course Object

Fields: Course Name, Code, Credit Hours, Semester

Relationship: Master-Detail with Enrollment

**Enrollment Object** 

Junction Object between Student and Course

Tracks Grade, Enrollment Date, and Status

**Faculty Object** 

Manages course assignment, attendance entry, and grading

Attendance Object

Linked to Student and Course with Date and Status (Present/Absent)

**Department Object** 

Organizes Students, Faculty, and Courses under a common academic structure

Automation Implemented

Auto Enrollment: Students auto-enrolled into courses based on semester via Flow.

Attendance Tracker: Faculty selects course and marks attendance using a custom LWC component.

Grade Management: Faculty updates marks, and the final result is calculated and updated using Apex triggers.

Notifications: Auto-email alerts to students on enrollment confirmation and grade release.

■ GGV CSIT Management System – Project Summary (Page 2)

☐ Lightning Web Components (LWC) Features

Student Dashboard: Personalized portal showing current courses, grades, attendance, and profile.

Faculty Dashboard: View assigned courses, manage attendance, and post grades.

Admin Panel: Manage all records, assign faculty, monitor performance.

∀ Validation Rules & Security

**Ensures:** 

No duplicate Roll Numbers.

Only valid course codes for enrollments.

Grade entry only allowed after attendance is marked.

Profile-Based Access:

Students can view only their data.

Faculty can manage their courses.

Admin has full access.

**Deployment Process** 

Change Sets used to migrate metadata.

Data Loader for importing bulk student, course, and faculty records.

Test Classes written to cover >90% Apex code coverage for deployment to production.

## Reports & Dashboards

Student performance by semester.

Faculty activity logs.

Department-level analytics.

Attendance summary.

★ Impact and Learning

Improved data transparency and student engagement.

Streamlined departmental workflows.

Hands-on experience with LWC, Apex, automation tools, and real-world problem-solving.