**EduConnect CRM – Student, Faculty & Alumni Relationship Management**

**📌 Phase 1: Problem Understanding & Industry Analysis**

**1. Requirement Gathering**

Educational institutions today face challenges in efficiently managing students, faculty, courses, and alumni. Common problems include:

* Manual record-keeping of admissions, performance, and attendance.
* Unbalanced faculty workload distribution.
* Lack of systematic alumni engagement and tracking.
* Difficulty in sending timely communication (reminders, event invites, notifications).
* Absence of centralized dashboards for decision-making.

**Requirements Identified:**

* CRM solution to manage student lifecycle from admission → enrollment → graduation.
* Automated course assignments, advisor allocation, and workload balancing.
* Dashboards & reports for student performance, faculty load, and alumni activities.
* Approval processes for course credits and withdrawals.
* Scalability for integrating external LMS or APIs in the future.

**2. Stakeholder Analysis**

**Primary Stakeholders:**

* **Students** → Smooth admission, enrollment, and access to academic records.
* **Faculty** → Course assignments, workload management, and student monitoring.
* **Administrators** → Admission oversight, performance tracking, and approvals.
* **Alumni** → Continued connection for networking & institutional events.
* **Executives / Principals** → Real-time insights via dashboards.

**3. Business Process Mapping**

* **Admissions** → Application submission, verification, and confirmation.
* **Enrollment** → Course allocation and advisor assignment.
* **Faculty Allocation** → Admin assigns faculty to courses.
* **Tracking** → Attendance, academic performance, and progress.
* **Alumni Engagement** → Events, mentoring, and career tracking.

**4. Industry-Specific Use Case Analysis**

* **Universities** → Large-scale student & faculty data management.
* **Colleges** → Streamlined admissions and course allocation.
* **Schools** → Attendance, parent communication, and progress reports.
* **Coaching Centers** → Enrollment tracking, performance monitoring, and fee reminders.

**5. AppExchange Exploration**

* **Salesforce Education Cloud** – Feature-rich but expensive.
* **Blackbaud Education Management** – Strong LMS, limited Salesforce-native integration.
* **Gap Identified** – Affordable Salesforce-native CRM for admissions, faculty load, and alumni engagement.

**📌 Phase 2: Org Setup & Configuration**

**Salesforce Editions**

* Developer Edition → For build.
* Enterprise Edition → For real-world rollout.

**Company Profile Setup**

* Company Name: EduConnect Solutions Pvt Ltd
* Time Zone: IST
* Currency: INR/USD

**Business Hours & Holidays**

* Default: 9 AM – 5 PM, Mon–Sat.
* Added academic holidays to avoid triggering workflows.

**User Setup & Licenses**

* **Student User** (Platform License).
* **Faculty User** (Salesforce License).
* **Administrator** (System Admin).

**Profiles**

* EduConnect\_Student → Restricted.
* EduConnect\_Faculty → Moderate access.
* System Admin → Full access.

**Roles**

* Principal (Top)  
  └─ Faculty  
  └─ Students

**Permission Sets**

* EduConnect\_Reports\_Access → Report/dashboard access.
* EduConnect\_API\_Access → Future LMS integrations.

**OWD & Sharing Rules**

* Students & Alumni → Private.
* Courses → Controlled by parent.
* Share Student records with assigned Faculty.

**Login Policies**

* Students: 8 AM – 8 PM.
* Faculty/Admin: Full-time.

**📌 Phase 3: Data Modeling & Relationships**

**Objects**

* Student\_\_c (Name, Email, Admission Date, Status).
* Course\_\_c (Course Name, Duration, Credits).
* Faculty\_\_c (Name, Department, Email).
* Enrollment\_\_c (Junction: Student ↔ Course).
* Alumni\_\_c (Batch Year, Organization, Contact Info).

**Relationships**

* Student ↔ Enrollment (Master-Detail).
* Course ↔ Enrollment (Master-Detail).
* Faculty ↔ Course (Lookup).

**Record Types**

* Student → Regular, Exchange.
* Course → Core, Elective.

**Layouts & Schema**

* Student page → Courses enrolled, advisor details.
* Faculty page → Assigned courses, workload.

**📌 Phase 4: Process Automation (Admin)**

* **Validation Rules** → Admission date must not be future, credits > 0.
* **Approval Process** → High-credit courses require HoD approval.
* **Flows**:
  + Auto-assign advisor on student creation.
  + Faculty update student grades via Screen Flow.
  + Monthly attendance reports via Scheduled Flow.
  + Alumni welcome email via Auto-launched Flow.
* **Email Alerts** → Admissions, enrollments, alumni events.
* **Tasks** → Auto-create faculty tasks for new student allocations.
* **Custom Notifications** → Notify students/faculty on assignments.

**📌 Phase 5: Apex Programming (Developer)**

* **Service Classes** → StudentService, CourseService, FacultyService, AlumniService.
* **Triggers** →
  + EnrollmentTrigger (auto update student course count).
  + CourseTrigger (update course capacity).
  + AlumniTrigger (send notifications).
* **Async Apex** →
  + Batch Apex → GPA updates at semester end.
  + Queueable → Alumni bulk invites.
  + Scheduled Apex → Weekly faculty workload summary.
  + Future → External LMS callouts.
* **Error Handling** → Log to EduConnect\_Error\_Log\_\_c.
* **Test Classes** → 85%+ coverage with mocks for async & callouts.

**📌 Phase 6: User Interface Development**

* Custom **Lightning App**: EduConnect CRM.
* Record pages for Students, Faculty, Courses, Alumni.
* **LWCs**: Student performance summary, Faculty workload chart, Alumni tracker.
* **Utility Bar** → Reports/Dashboards quick access.
* Navigation via **LWC Navigation Service**.

**📌 Phase 7: Integration & External Access**

* LMS Integration via Named Credentials & REST APIs.
* EduConnect API → Expose student performance externally.
* Platform Events → Milestone alerts.
* Salesforce Connect → Integrate with external university DBs.
* OAuth for secure integrations.

**📌 Phase 8: Data Management & Deployment**

* **Data Import Wizard** → Initial student/faculty data.
* **Data Loader** → Bulk enrollments.
* **Duplicate Rules** → Prevent duplicate student/faculty.
* **Data Export** → Weekly backup.
* **Deployment** → Sandbox → Production via Change Sets or SFDX.

**📌 Phase 9: Reporting, Dashboards & Security Review**

**Reports**

* Student enrollment by course.
* Faculty workload summary.
* Alumni engagement stats.

**Dashboards**

* Management → Admissions & performance overview.
* Faculty → Assigned courses & student progress.

**Security**

* Role-based hierarchy (Principal > Faculty > Students).
* FLS → Sensitive data restricted.
* Strict session settings & IP login ranges.

**📌 Phase 10: Final Presentation & Demo Day**

* Pitch presentation showing EduConnect CRM workflow.
* Live demo: Admission → Enrollment → Faculty assignment → Report.
* Collect feedback from stakeholders.
* Deliver user guide + system architecture documentation.
* Publish repo on GitHub + share on LinkedIn.

**🛠️ Tech Stack**

* Salesforce CRM
* Apex, Flows, LWC
* Reports & Dashboards
* SFDX & Change Sets

**📌 Outcomes**

* Streamlined admission and enrollment process.
* Improved faculty workload management.
* Strengthened alumni engagement.
* Enhanced decision-making with real-time dashboards.