

Phase 3: Data Modeling & Relationships – Student Management System

1. Standard & Custom Objects

- **Standard Objects:** Account, Contact, User (for managing students, staff).
- **Custom Objects:** Student, Course, Enrollment, Attendance.

2. Fields

- **Standard Fields:** Name, Created Date, Owner.
- **Custom Fields:** Roll Number, Course Duration, Attendance Percentage, Grade.

3. Record Types

- Differentiate student types: e.g., Undergraduate, Postgraduate.
- Assign different picklist values and layouts for each type.

4. Page Layouts

- Customize layout for Students, Courses, and Enrollment objects.
- Arrange sections: Personal Info, Academic Info, Attendance.

5. Compact Layouts

- Show key info in record highlights: Student Name, Course, Current Grade.

6. Schema Builder

- Visualize object relationships and fields.
- Drag-and-drop interface to create objects, fields, and relationships.

7. Lookup vs Master-Detail vs Hierarchical Relationships

- **Lookup:** Student ↔ Course (optional link).
- **Master-Detail:** Course ↔ Enrollment (deleting Course deletes Enrollments).
- **Hierarchical:** User ↔ Manager (for staff reporting structure).

8. Junction Objects

- Handle many-to-many relationships: e.g., Students ↔ Courses via Enrollment object.

9. External Objects

- Connect external data sources (e.g., university library, online learning platform) to Salesforce without storing data inside Salesforce.