INSTITUTE MANAGEMENT SYSTEM

Phase 9: Reporting, Dashboards and Security Review

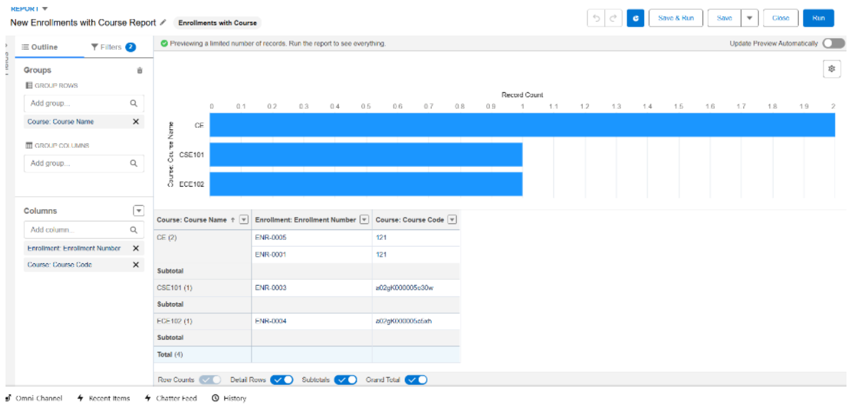
1 — Reports (create useful IMS reports)

Goal: build operational reports admins, finance and faculty will use.

A. Student Enrollment by Course (summary)

1. App Launcher → Reports → New Report.
2. In the Report Type selector choose Students with Enrollments (or use Enrollment__c report type if you created a custom one).
3. Click Start Report.
4. Remove unwanted columns; add these columns:
   - Course__c (or Enrollment → Course Name), Student__r.Full_Name__c, Enrollment_Status__c, Enrollment_Date__c.
5. Group Rows by Course__c:
   - Drag Course__c into the Group drop zone.
6. Add summary: count of records (this is automatic: "Count of Rows").
7. Add filters:
   - Date Range (Enrollment_Date__c) → All Time or specific semester.
   - Enrollment_Status__c → (optional) Active.
8. Add a chart (click Add Chart) → Chart Type: Bar or Donut (Course vs Count).
9. Save → Name: Student Enrollment by Course → choose folder (e.g., "IMS Reports") → Save & Run.

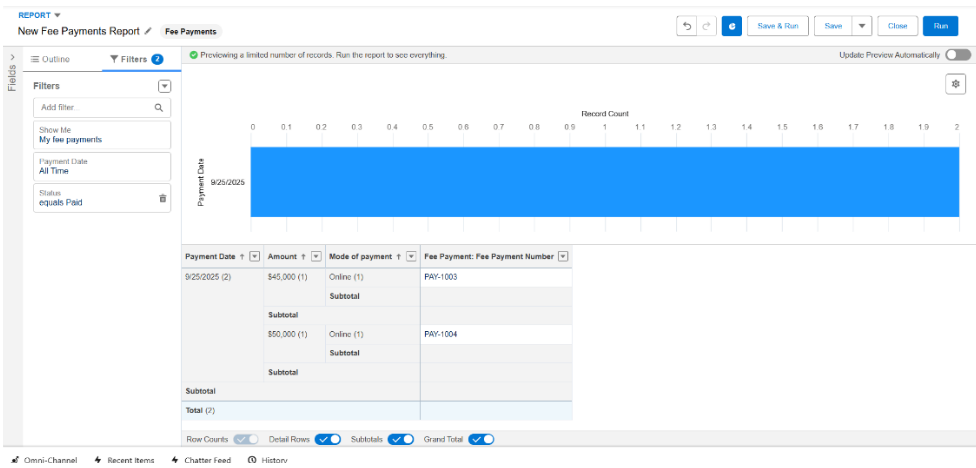
Verify: Run, ensure groups show correct student counts per course.



B. Fee Collection by Month (sum of payments)

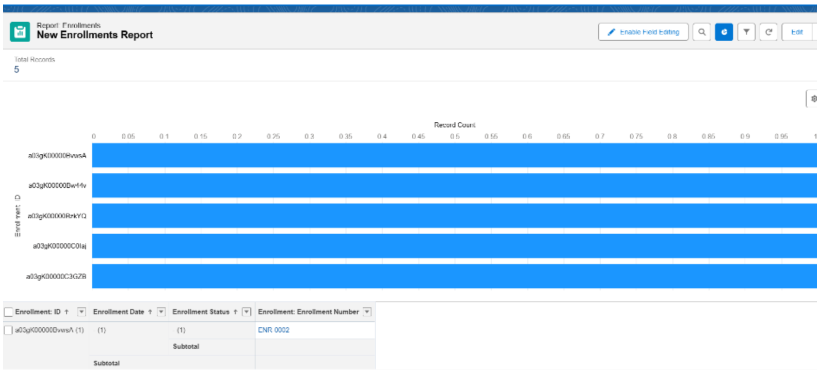
1. Reports → New Report → Select Fee Payments (or Fee_Payment__c) report type.
2. Start Report. Add columns:
   - Payment_Date__c, Amount__c, Student__r.Full_Name__c, Status__c.
3. Group Rows by Payment_Date__c → Group by Calendar Month (set grouping to Month).
4. Summarize Amount__c → click column dropdown → Summarize → choose Sum.
5. Add filters:
   - Status__c = Paid
   - Date range = This Year (or as needed).
6. Chart: Column chart (Month vs Amount).
7. Save → Name: Fee Collection by Month.

Verify: Values match finance totals for the selected timeframe.



C. Course Completion Report (who completed)

1. New Report → Choose Enrollments report type.
2. Filter: Enrollment_Status__c = Completed.
3. Columns: Student, Course, Grade__c, Completion Date (if available).
4. Group by Course or Faculty (if Course → Faculty lookup present).
5. Save as Course Completion Report.



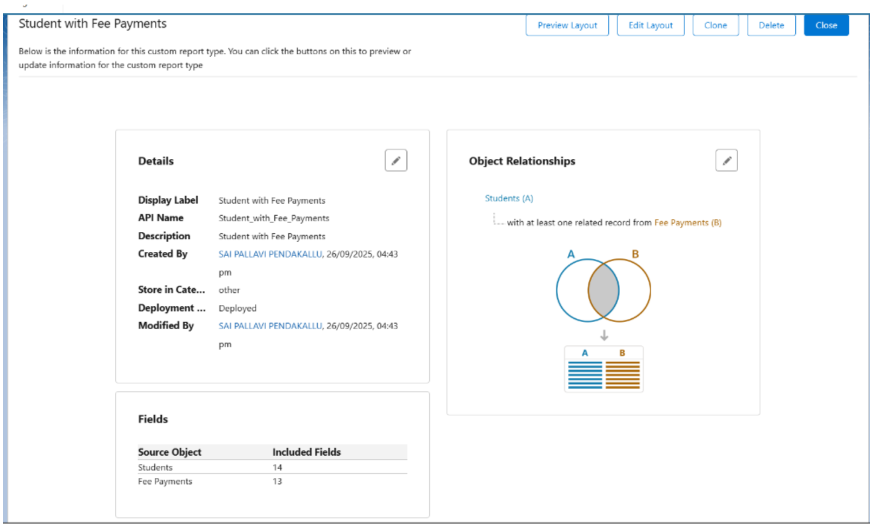
2 — Report Types (create custom ones for cross-object reporting)

Goal: enable reporting on combinations like Student + Fee Payment or Course + Enrollment.

Create Student + Fee Payment custom report type

1. Setup → Report Types → New Custom Report Type.
2. Primary Object: Student__c.
   - Label: Student with Fee Payments.
   - Plural Label: Students with Fee Payments.
   - Description: Students and their fee payments.
   - Store in category: IMS (choose or create).
   - Deployment Status: Deployed.
3. Click Next → Add Related Object:
   - Related Object: Fee_Payment__c
   - Relationship: Each "A" record must have at least one related "B" record OR A records may or may not have related B records — choose based on need.
4. Save.

Verify: New report type appears when creating new report; build a Student + Fee report



3 — Dashboards (visualize KPIs)

Goal: create a management dashboard and a finance dashboard.

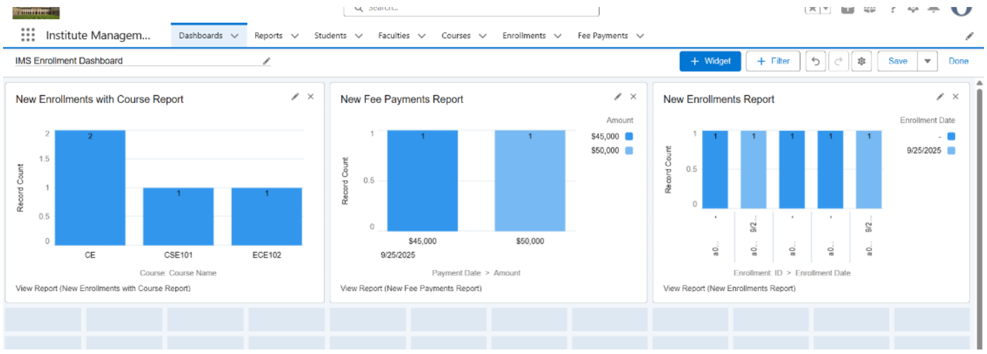
A. Create Enrollment Dashboard

1. App Launcher → Dashboards → New Dashboard.
2. Name: IMS Enrollment Dashboard. Folder: IMS Dashboards. Click Create.
3. Click + Component → Choose Report: Student Enrollment by Course → Choose component type: Bar Chart.
4. Configure display: Title, subtitle, ranges, and aggregate values. Click Add.
5. Add component: Fee Collection by Month (report) → Component type: Line/Column.
6. Add a Table component for Course Completion Report.
7. Save.

Verify: Dashboard loads; data refresh shows current metrics.

B. Dashboard Filters & Subscriptions

- Add Dashboard Filter (top-right → Add Filter) to allow toggling by Course or Faculty.
- Subscribe users: Open Dashboard → Subscribe → Add schedule & email recipients.



4 — Dynamic Dashboards (view as logged-in user)

Goal: show different data to each user without creating multiple dashboards.

Create/Modify Dashboard to be dynamic

1. Open dashboard in Edit mode → Edit Properties (gear icon).
2. Under View Dashboard As select "The dashboard viewer" (or “Logged-in user”).
    - This makes the dashboard dynamic: each viewer sees data they have access to (row-level security).
3. Save & Finish.

5 — Sharing Settings (OWD, Role Hierarchy, Sharing Rules)

Goal: set secure, appropriate record visibility.

A. Design (recommended for IMS)

- Student__c → Private (sensitive).
- Enrollment__c → Private (faculty see their students).
- Fee_Payment__c → Private (finance + admin).
- Course__c → Public Read Only (courses visible).

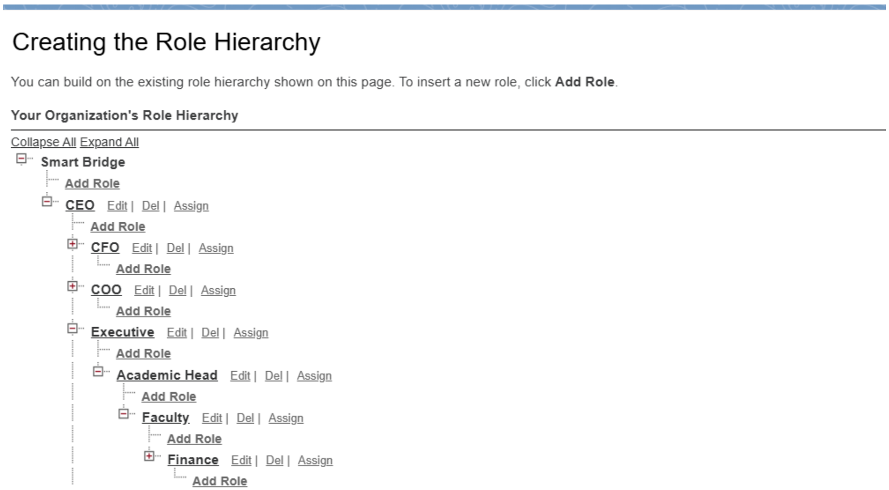
B. Set Organization-Wide Defaults (OWD)

1. Setup → Sharing Settings.
2. Click Edit. For each object set Default Internal Access:
    - Student__c → Private
    - Enrollment__c → Private
    - Fee_Payment__c → Private
    - Course__c → Public Read Only
3. Save.

C. Role Hierarchy

1. Setup → Roles → Set Up Roles.
2. Create roles: Executive, Academic Head, Faculty, Finance, Student Portal User etc.
3. Arrange hierarchy so supervisors inherit access.

Verify: Users see records owned by users below them in role hierarchy.



D. Sharing Rules (give broader access where needed)

1. Setup → Sharing Settings → scroll to object (e.g., Enrollment__c) → Click New under Sharing Rules.
2. Create rule:
   - Name: Share Enrollments to Faculty by Course (example).
   - Rule Type: Based on record owner or Based on criteria.
   - If criteria-based: Course__c = [specific course] (or use a custom field indicating faculty owner).
   - Share with: Roles (Faculty) or Public Groups (Faculty_Group).
   - Access Level: Read Only or Read/Write.
3. Save and Recalculate.

6 — Field-Level Security (FLS) & Page Layouts

Goal: hide sensitive fields for certain profiles.

A. Hide a field (example: Student ID Proof)

1. Setup → Object Manager → Student__c → Fields & Relationships.
2. Click the field you want to restrict (e.g., ID_Proof__c).
3. Click Set Field-Level Security.
4. Uncheck visibility for profiles you want to restrict (e.g., Faculty, Standard User) and keep checked for Admin and Finance only.
5. Save.

B. Remove field from Page Layouts (optional)

1. Still in Object Manager → Page Layouts → Edit the layout(s).
2. Remove the sensitive field from the layout for profiles you don't want seeing it. Save.

Verify: Login as test user with restricted profile and confirm field is not visible on record or in reports.

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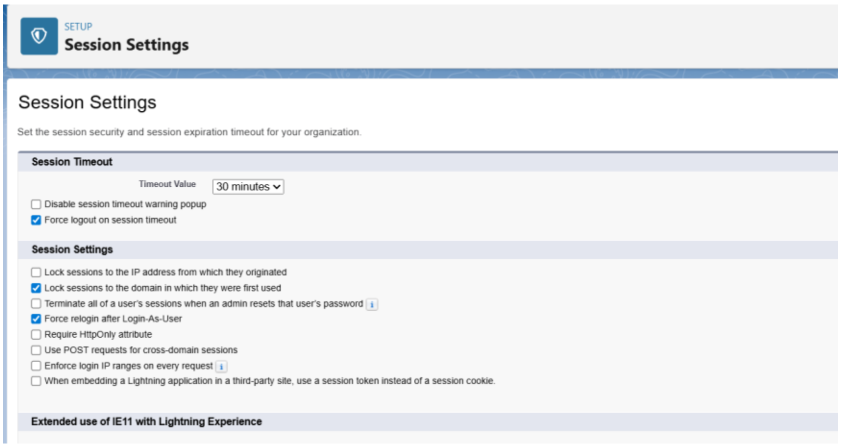
7 — Session Settings (timeout, security)

Goal: set session timeout to 30 minutes and enforce logout.

Steps

1. Setup → Session Settings.
2. Set Timeout Value to 30 minutes.
3. Optionally check Force logout on session timeout (if available) to block persistent sessions.
4. Save.

Verify: Log in as a test user, remain idle for 30 minutes (or use forced shorter value during testing), and confirm session times out.



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8 — Login IP Ranges & Login Hours

Goal: restrict admin/faculty access to campus IPs while allowing students public portal access.

A. Profile-level Login IP Ranges (restrict)

1. Setup → Profiles → Select profile to restrict (e.g., Faculty Profile).
2. Scroll to Login IP Ranges → New.
    - Start IP Address = campus start IP
    - End IP Address = campus end IP
3. Save.

Note: Be careful—if you set IP ranges for the Admin profile, you can lock yourself out. Always test with a secondary admin account.

B. Network Access (org-wide allowed IP ranges; optional)

1. Setup → Network Access → New.
2. Add trusted IP ranges that bypass login verification (useful for offices).

Verify: Attempt login from outside allowed IP and confirm access is denied for that profile.

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9 — Audit Trail & Field History Tracking

Goal: record who changed what and when.

A. View Setup Audit Trail (tracks setup changes)

1. Setup → View Setup Audit Trail.

2. Download last 180 days of changes to see metadata and admin changes (who changed profiles, permission sets, etc.).

B. Enable Field History Tracking (object-level)

1. Setup → Object Manager → Student__c → Fields & Relationships → click Set History Tracking (button near top).
2. Check Enable Track Field History.
3. Check the fields you want to track (e.g., Enrollment_Status__c, Course__c, Phone__c).
4. Save.
5. Edit Student page layout → Add the Student History related list to the layout so users can see history on the record page.

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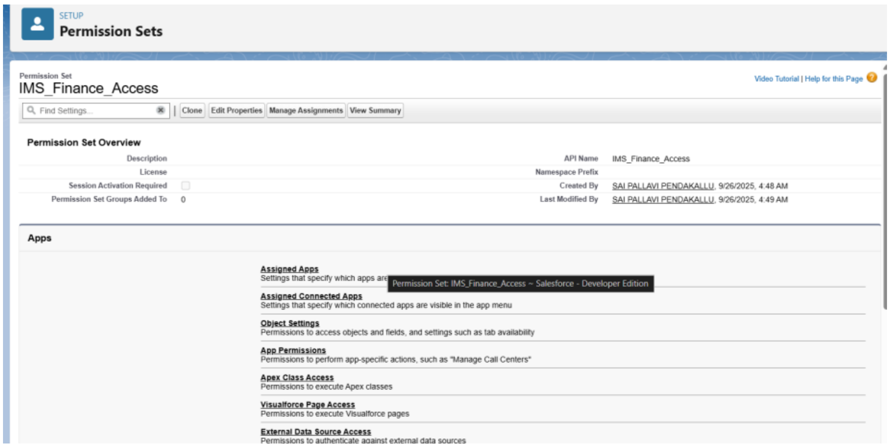
10 — Permission Sets & Profile Review (granular access)

Goal: give additional permissions without changing profiles.

Create a Permission Set

1. Setup → Permission Sets → New.
2. Label: IMS_Finance_Access. API Name auto-fills. Save.
3. In Permission Set → Object Settings → select Fee_Payment__c → click Edit → check Read, Create, Edit, Delete as appropriate. Save.
4. Assign the permission set to specific users: Permission Set → Manage Assignments → Add Assignments → select users.

Verify: Login as a user with the permission set and confirm they can access fee payment records as intended.



11 — Testing & Validation (end-to-end)

After implementing above:

1. Test reports & dashboards
   - Run Student Enrollment by Course and compare counts to source data.
   - Schedule a dashboard refresh and subscription to confirm email delivery.
2. Test security
   - Create test users with different roles/profiles (Faculty, Finance, Student).
   - Confirm View As behavior for dynamic dashboard (logged-in user sees correct data).
   - Confirm restricted profile cannot see sensitive fields and is blocked outside IP range.
3. Test history
   - Change a tracked field and confirm history entries appear.
4. Document everything
   - Record setup choices, folders, report names, dashboard names, sharing rules, and permission sets for future audits.

- Enable Field History Tracking for key fields; add History related lists.
- Create Permission Sets for Finance and Faculty; assign to users.
- Run test validation with test users.