

Student Attendance & Performance Tracker

Phase 8: Data Management & Deployment

Overview

Phase 9 focuses on analyzing student data through reports and dashboards while enforcing strong security controls. This phase ensures that attendance and performance data is **accurately tracked, visually represented, and securely accessed** by authorized users only.

9.1 Reports (Tabular, Summary, Matrix, Joined)

Purpose

Salesforce reports were created to analyze attendance and academic performance from different perspectives, supporting both operational tracking and decision-making.

A. Tabular Report – Student Attendance List

Use Case

This report provides a simple list view of student attendance records, useful for daily review by teachers and administrators.

Implementation

- Displays Student Name, Attendance Date, Status, and Enrollment
- Used for quick verification and record checking

The screenshot shows a web-based application titled "Student Attendance App". The main title bar includes "Welcome", the current page name "* Student Attendance – Tabular", and a "More" dropdown. Below the title bar, there's a toolbar with icons for "Report: Attendances" (a clipboard icon), "Enable Field Editing" (a pencil icon), a search icon, an "Add Chart" icon, a filter icon, a refresh/circular arrow icon, an "Edit" button, and a dropdown menu.

The main content area displays a table titled "Student Attendance ...". The table has a header row with columns: "Student" (with a dropdown arrow), "Attendance Date" (with a dropdown arrow), "Status" (with a dropdown arrow), and "Course" (with a dropdown arrow). Below the header, there are seven rows of data:

	Student	Attendance Date	Status	Course
1	Siri Varshini	18/12/2025	Present	Maths
2	hana	18/12/2025	Present	Maths
3	Nokiya	18/12/2025	Present	Maths
4	Monika	18/12/2025	Present	Maths
5	Siri varshini	10/12/2025	Absent	Math 101
6	Siri varshini	17/12/2025	Present	Salesforce
7	Siri varshini	17/12/2025	Present	Maths

B. Summary Report – Attendance Percentage per Student

Use Case

This report groups attendance records by student and calculates attendance percentage, helping identify students with low attendance.

Implementation

- Grouped by Student
- Summary count on Status
- Formula used to calculate attendance percentage

The screenshot shows a web-based application titled "Student Attendance App". The top navigation bar includes links for "Welcome", "* Attendance Percentage by Student" (which is the active tab), and "More". Below the header, there's a toolbar with icons for "Report: Attendances", "Enable Field Editing", "Search", "Add Chart", and other functions.

The main content area displays a report titled "Attendance Percentage by Student". It shows the following summary data:

Total Records	Count	Attendance Percentage
7	7	-

Below this summary, there is a detailed table showing attendance data for individual students:

	Student	Status	Count	Attendance Percentage
<input type="checkbox"/>	hana (1)	Present	-	-
Subtotal			1	14.29%
<input type="checkbox"/>	Monika (1)	Present	-	-
Subtotal			1	14.29%
<input type="checkbox"/>	Nokiya (1)	Present	-	-
Subtotal			1	14.29%
<input type="checkbox"/>	Siri Varshini (4)	Present	-	-
	Absent	-	-	-
	Present	-	-	-
	Present	-	-	-
Subtotal			4	57.14%
Total (7)			7	

- Matrix Reports: Cross-tabulated data to compare grades across courses.
- Joined Reports: Combined attendance and performance reports for detailed analysis.

9.2 Custom Report Types

Use Case

Standard report types were insufficient to analyze Enrollment data with both Student and Course information. A custom report type was created to enable this.

Custom Report Type Created

- Name: *Enrollments with Students & Courses*
- Primary Object: Enrollment

- Related Objects: Student, Course

Custom Report Type		All Custom Report Types			
		9 items • Sorted by Label • Filtered by All custom report types • Updated a few seconds ago			
Label	Name	Description	Category	Created Date	
Attendances with Students	Attendances_with_Students	Custom Attendances report type	Other Reports	SPent	19/12/2025, 11:29 am
Orchestration Run Logs Spring '24	flow_orchestration_log_oottb_crt_two_four_eight	Find out which orchestration run logs were created and what happened in their associated orchestration runs.	Other Reports	autopro	09/12/2025, 10:41 am
Orchestration Runs Spring '24	flow_orchestration_run_oottb_crt_two_four_eight	Find out which orchestration runs were created.	Other Reports	autopro	09/12/2025, 10:41 am
Orchestration Stage Runs Spring '24	flow_orchestration_stage_run_oottb_crt_two_four_eight	Find out which orchestration stage runs were created and the current status of each run.	Other Reports	autopro	09/12/2025, 10:41 am
Orchestration Step Runs Spring '24	flow_orchestration_step_run_oottb_crt_two_four_eight	Find out which orchestration step runs were created and the current status of each run.	Other Reports	autopro	09/12/2025, 10:41 am
Orchestration Work Items Spring '24	flow_orchestration_work_item_oottb_crt_two_four_eight	Find out which orchestration work items were created, who's the associated assignee, and what's the current status of each work item.	Other Reports	autopro	09/12/2025, 10:41 am
Results with Students (Joinable)	Results_with_Students_Joinable	Results with Students (Joinable)	Other Reports	SPent	19/12/2025, 11:37 am
Results with Students and Courses	Results_with_Students_and_Courses	Matrix report for grades	Other Reports	SPent	19/12/2025, 10:59 am
Screen Flows	screen_flows_prebuilt_crt	Find out which flows get executed and how long users take to complete each flow screen.	Other Reports	autopro	09/12/2025, 10:41 am

9.3 Dashboards

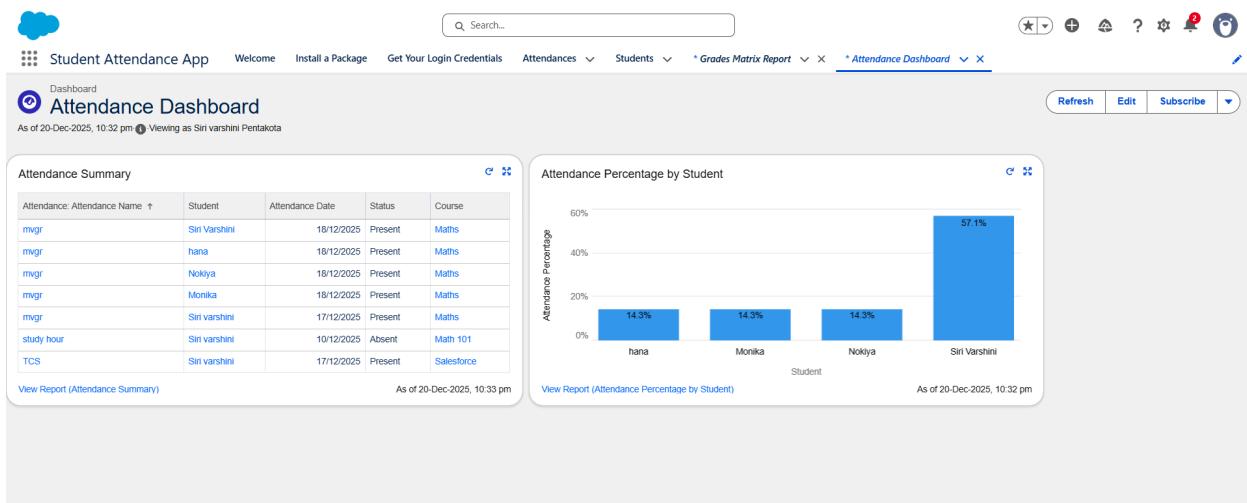
Attendance Dashboard

Use Case

Dashboards provide a visual summary of attendance trends, helping faculty and admins quickly identify issues.

Implementation

- Bar chart showing Attendance % per student
- Based on Summary Report



9.4 Dynamic Dashboard

- Configured dynamic dashboards to allow faculty members to view only their assigned students' data, providing personalized insights.
-

9.5 Sharing Settings (Record-Level Security)

Use Case

To protect student data, record-level access was restricted using Organization-Wide Defaults and Sharing Rules.

Implementation

- Student, Enrollment, Attendance → Private
 - Sharing rule created for Teachers with Read/Write access
-

9.6 Field-Level Security (FLS)

Use Case

Sensitive fields such as Grades and Exam Marks should not be editable or visible to unauthorized users.

Implementation

- Teacher: Read-only
- Admin: Editable
- Student: Hidden

Fields Secured

- Grade
 - Exam Marks
 - Performance Score
-

9.7 Session Settings

Use Case

Session security settings protect the Salesforce org from unauthorized or unattended access.

Implementation

- Session timeout: 30 minutes
 - IP locking enabled
 - Domain locking enabled
-

9.8 Login IP Ranges

Restricted login access to specific IP ranges for additional security.

This prevents unauthorized access from external networks.

9.9 Audit Trail

Enabled Audit Trail to track all administrative and configuration changes in Salesforce.

Provides accountability for modifications in student attendance and performance data.