

Campus Event Management Platform - Design Document

1. Introduction & Assumptions

This document describes the design for a Campus Event Management Platform that supports:

Admin Portal (Web): For college staff to create and manage events.

Student App (Mobile): For students to browse, register, check-in, and provide feedback.

Assumptions: Each event belongs to a college and has a unique ID. Students are uniquely identified by roll number per college. Events can be Hackathons, Workshops, Fests, Seminars, etc. Feedback is optional but only one feedback per student per event is allowed. System scales to ~50 colleges, 500 students each, 20 events per semester.

2. Data to Track

Event Creation: Name, Type, Date, Capacity, College ID, Status.

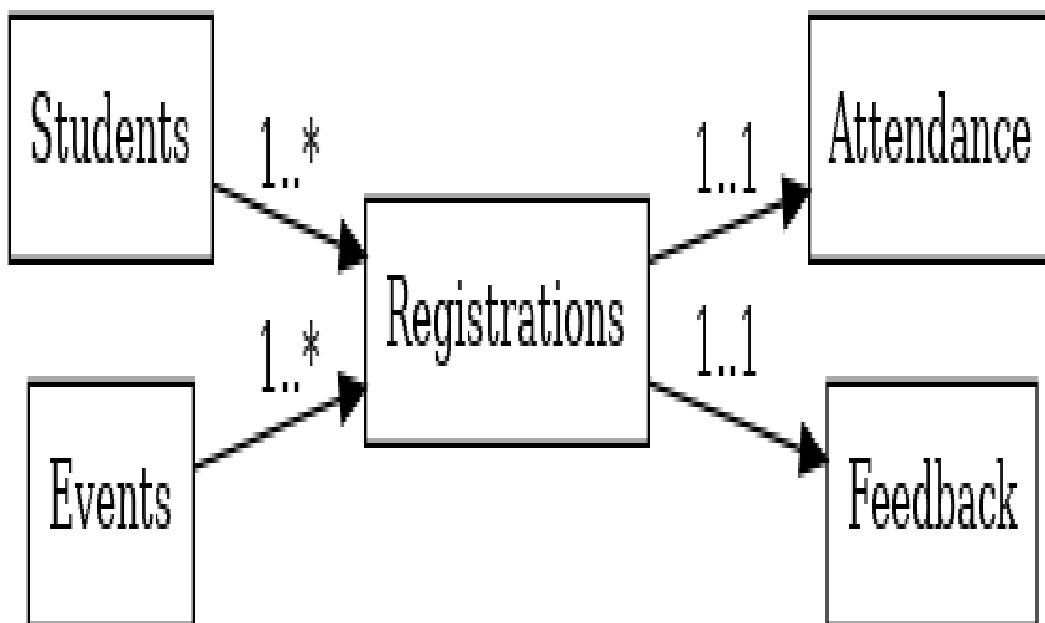
Student Registration: Student details (Name, Roll, College ID) and chosen event.

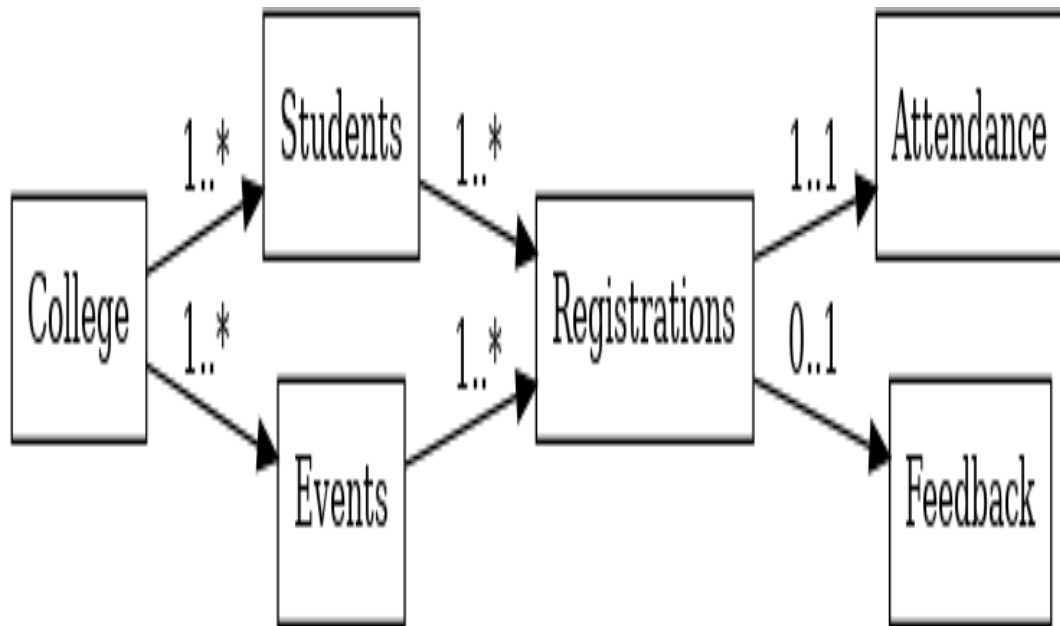
Attendance: Marking students present on the event day.

Feedback: Rating scale 1–5 provided by students after the event.

3. Database Schema (ER Diagram)

The following diagrams illustrate the relationships:

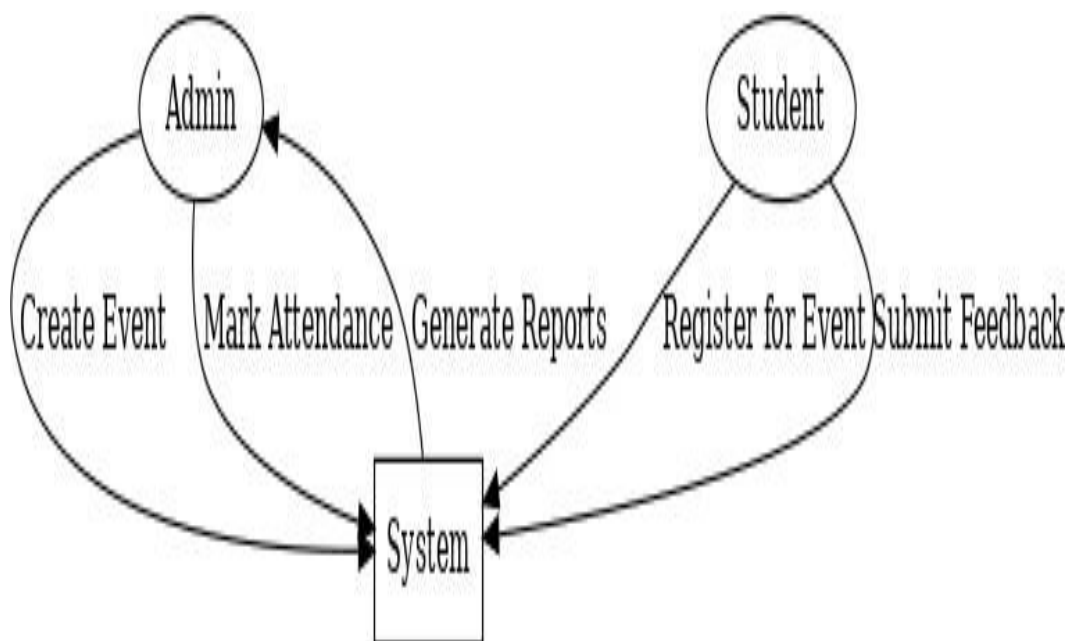
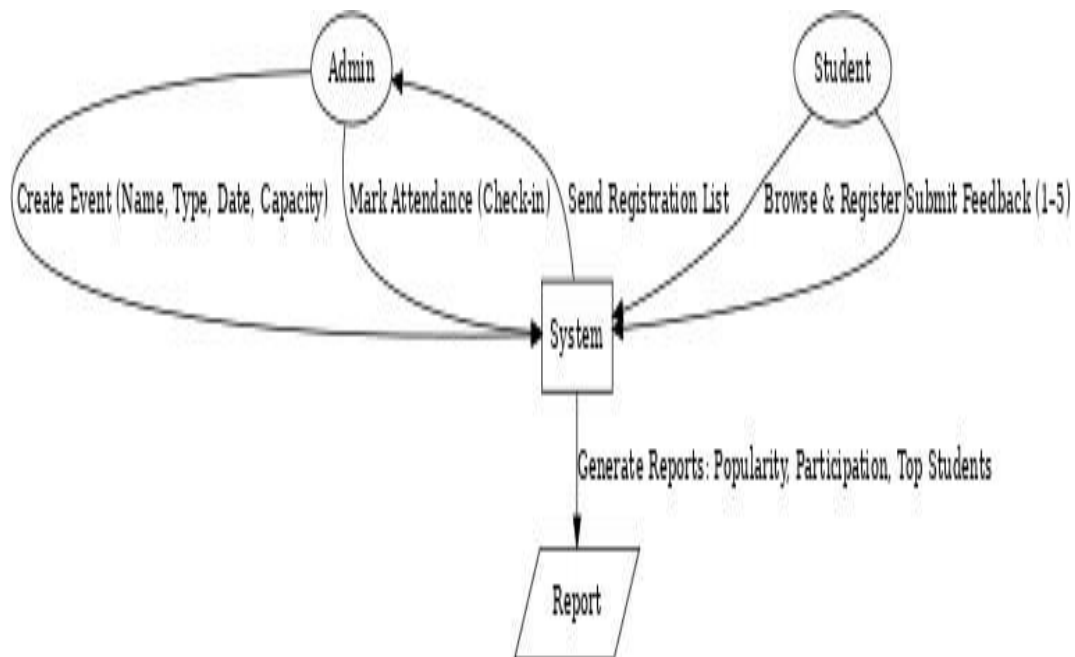




4. API Design

Endpoint	Method	Description
/create_event	POST	Create a new event.
/register	POST	Register a student to an event.
/attendance	POST	Mark student attendance.
/feedback	POST	Submit feedback rating.
/events	GET	View list of events.
/reports/popularity	GET	Generate event popularity report.
/reports/participation	GET	Generate student participation report.
/reports/top-students	GET	Top 3 most active students.

5. Workflows (Sequence Diagrams)



6. Reports

Event Popularity Report: Events sorted by total registrations.

Student Participation Report: Number of events attended by each student.

Top Students Report: Top 3 students based on attendance.

Flexible Reports: Filter by event type (Workshop/Fest/Seminar).

7. Assumptions & Edge Cases

Duplicate Registrations: Prevented using unique student-event constraints.

Cancelled Events: Mark event status as 'cancelled'.

Attendance Percentage (per event): Gives attendance percentage per event.

Average Feedback (per event): Provide average feedback per event.

