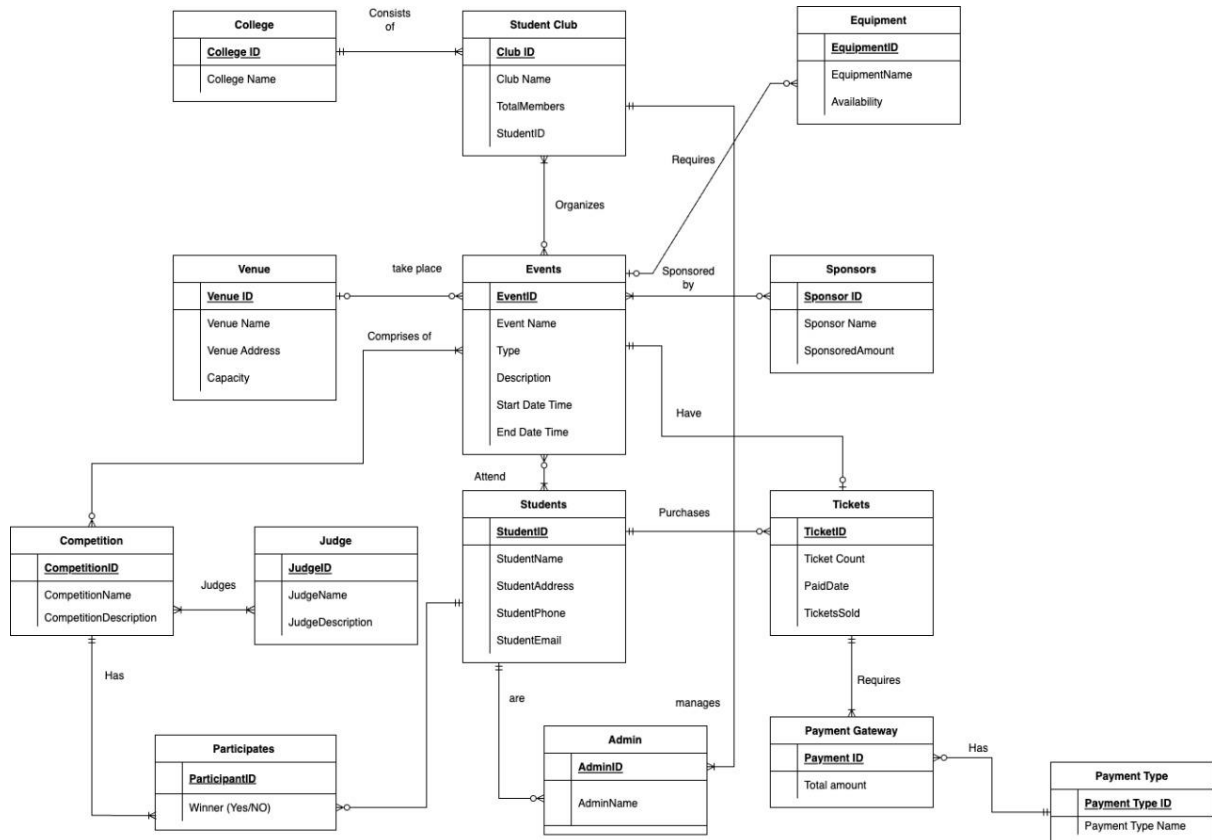


# Event Management System

## ERD Diagram:



## Discussed Business Problem:

1. Designing an event management system that will help students keep track of all the events that are organized by various clubs or committees at Northeastern University.
2. Create a centralized system that will maintain the data of events organized by clubs or committees so that students may get to know about the events that will be occurring on the university campus.
3. This system will also enable students to register for any event they are interested in participating in.
4. Ensure that the results of the competition-based events can be accessed from the database.
5. Additionally, keeping a systematic record of many factors, such as the number of students participating, the number of events scheduled, the timeline of the events, etc., can assist the university in planning future events utilizing this information.

### Entities Present:

1. College
2. Student Club
3. Admin
4. Venue
5. Events
6. Sponsors
7. Tickets
8. Students
9. Judge
10. Competition
11. Payment Gateway
12. Payment Type
13. Participants
14. Equipment

### Relations between the entities:

1. A College consists of one or many Student Clubs and Student Clubs belong to one College.
2. Student Clubs can organize many Events, while an Event can be organized by one or many Student Clubs.
3. Events can be held on one Venue, or it can take place online, while the Venue can host 0 or many Events.
4. Events can have 0 or many Sponsors, while Event can be sponsored by 1 or many sponsors.
5. Events require 0 or many Equipments. Equipments may or may not be required in an Event.
6. Students can attend 0 or many Events. Events should be attended by one or many students.
7. Student may or may not purchase any Tickets, while a Ticket should be purchased by atmost one Student.
8. Events may or may not have Tickets.
9. Events comprises of 0 or many Competitions.
10. Judge judges one or many Competitions. A Competition is judged by one or many Judges.
11. Competition has many Participants.
12. Students participates in Competitions.
13. Students are Admins and an Admin manages a Student Club.
14. Tickets requires Payment Gateway to make Payments. Payment Gateway has Payment Type.

### Key Design:

1. Student clubs in colleges organize various events.
2. Organized events require equipment that is availed from the college or outsourced.
3. Most of the events organized need a venue (location). If an event is online, it doesn't require any location.
4. To attend an event, students need to purchase tickets. To purchase tickets, the student will be redirected to the payment gateway where he/she will get options to choose payment types (Debit/Credit/Cash).
5. There can be competitions in an event in which students can participate.
6. Participants are judged by judges based on their performances.
7. Events can be sponsored, or they may not be sponsored, depending on the category of the event.
8. In a competition, there will be a judge who decides the winner based on the performance of the participants.