### **Assignment 2**

#### ***1.1. Entities and Their Relationships:****Three primary entities were identified for this system:*

* **Venue:** Represents a venue that can host multiple events.
* **Event:** Represents an event scheduled at a venue.
* **VenueManager:** Manages multiple venues and facilitates adding, deleting, and displaying events and venues.

#### ***1.2. UML Class Diagram: Designed to represent the entities, their attributes, and the methods associated with each class, and the relationships between them.***

* **Venue Class:**
  + **Attributes:** name, location, capacity, events[], eventCount
  + **Methods:** addEvent(), deleteEvent(), showEvents(),showCalendar()
* **Event Class:**
  + **Attributes:** date, start, end, eventName
  + **Methods:** Constructors
* **VenueManager Class:**
  + **Attributes:** venues[], venueCount
  + **Methods:** addVenue(), deleteVenue(), addEvent(), deleteEvent(), showEvents(), showCalendar(), printVenues()

### **2.1. Event Class**

The Event class encapsulates the details of an event, including the date, start time, end time, and event name.

#### ***2.2. Venue Class***

The Venue class represents a venue that can host events. It contains attributes like name, location, capacity, and an array of Event objects. The class provides methods for adding, deleting, and displaying events, as well as sorting events by date and time.

#### ***2.3. VenueManager Class***

The VenueManager class manages multiple venues. It provides methods for adding and deleting venues, as well as adding, deleting, and displaying events associated with specific venues. The VenueManager class interacts with the Venue and Event classes to facilitate these operations.

UML DIAGRAM

