**Main Functionalities:**

1. **Add Venue**: Adds a new venue with a specified name, location, and capacity.
2. **Delete Venue**: Removes a venue based on its name.
3. **Show Venues**: Displays a list of all venues.
4. **Add Event**: Adds an event to a specific venue on a given date, with start and end times.
5. **Delete Event**: Deletes an event from a venue.
6. **Show Events**: Displays events at a specific venue on a particular date.
7. **Show Calendar**: Displays the entire calendar for a venue.

#### **Data Structures**

1. **struct event**:
   * **Purpose**: Represents an event within a venue.
   * **Usage**: This structure is used to store event information. It is an integral part of the venue structure, allowing for easy management of events within a venue.
2. **struct venue**:
   * **Purpose**: Represents a venue, which can host multiple events.
   * **Usage**: This structure is the core of the program, storing all relevant information about a venue and its associated events. It facilitates easy management of both the venue and its events.
3. **Global Variables**:
   * **struct venue venues[MAX\_VENUES]**: An array of venue structures to store all venues.

#### **Rationale for Data Structures**

* **struct event and struct venue**: These structures provide a clear and organized way to manage complex data relationships between venues and events. By using arrays within the venue structure, the program can efficiently handle multiple events at each venue while ensuring data integrity and ease of access.
* **Global Arrays**: Using global arrays (venues and events) simplifies the program's logic by allowing direct access to all venues and their events. This structure is scalable, enabling the system to manage a large number of venues and events with minimal overhead.