Main Entities

- **Admin** – manages system, events, and users.

- **Event Organizer (Faculty/Club)** – creates and manages their events.

- **Student/User** – views and registers for events.

- **System Database** – stores all data (users, events, registrations, attendance, etc.).

⚙ **Algorithm: University Event Management System**

Step 1: System Initialization

1. Start system.

2. Connect to the database.

3. Display **Login Page**.

Step 2: User Authentication

1. User enters **email/username and password**.

2. System verifies credentials from the database.

3. If credentials are valid:

   - Redirect user to their respective **dashboard** based on their role:

     - Admin Dashboard

     - Organizer Dashboard

     - Student Dashboard

4. If invalid → Display error message and retry login.

Step 3: Admin Operations

1. Admin can:

   - Add, edit, or delete **users** (students, organizers).

   - Approve or reject **event requests** submitted by organizers.

   - Monitor **event statistics** (attendance, popularity, etc.).

o   View system **logs and reports**.

2. Admin actions are updated in the database.

Step 4: Event Creation (Organizer)

1. Organizer selects "Create Event."

2. Inputs details:

    o   Title

    o   Description

    o   Faculty

    o   Date & Time

    o   Location

    o   Maximum Attendees

    o   Event Image / Poster

3. System validates inputs (e.g., date not in the past).

4. Event is sent to Admin for **approval**.

5. Once approved → Event becomes **visible** to students.

Step 5: Event Browsing (Student)

1. Student logs in and opens the **Event List**.

2. System retrieves **upcoming events** from the database.

3. Student can:

    o   Search or filter events (by faculty, date, category).

    o   View event details.

4. Student clicks "Register."

Step 6: Event Registration

1. System checks:

    o   If student is already registered.

- o If event still has available seats.

2. If both true:

    - o Insert registration record (student_id, event_id, timestamp).

    - o Decrease available seats count by 1.

    - o Confirm successful registration to the student.

3. Else → Display "Event full" or "Already registered."

Step 7: Event Notification System

1. Send confirmation email or in-app notification to registered students.

2. Send event reminders (e.g., 1 day before event).

Step 8: Event Attendance (On Event Day)

1. Organizer opens attendance module.

2. Students check-in via:

    - o QR Code scan, or

    - o Manual verification (student number).

3. System marks attendance and stores records in the database.

Step 9: Post-Event Management

1. Organizer can upload:

    - o Event summary, images, or videos.

    - o Feedback form link.

2. Students can rate or give feedback on the event.

3. Admin reviews event performance and analytics.

Step 10: System Reports

1. Generate reports such as:

    - o Total events by faculty

- - Most attended events

  - User participation stats

  - Attendance rate per event

2. Admin or Organizers can export reports (PDF, Excel).

Step 11: System End

1. User logs out.

2. System saves session logs.

3. End.

🧠 **Optional Features**

- SMS or Email Reminders

- Integration with Google Calendar

- Feedback & Ratings Analytics

- Automatic Certificate Generation

- Event Waitlist System (for full events)