GROUP 35
CSE202: Fundamentals of Database Management Systems

L A F I E S T A

An event management database.

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Introduction

We intend to design an application for event management in the different fests conducted in a college. It will help in the easy and effective coordination of all the units functioning to make a fest successful. Various students categorised under the organising committee and organising team coordinate to ensure it's smooth running. Various activities are conducted throughout the day, followed by a star performance at night. Different students from other schools/colleges come to attend it. It takes a lot of time and effort to conduct a fest. This system aims to reduce effort and save time and ensure the smooth functioning of the same by efficiently maintaining and storing data, which can be viewed by the people involved in the fest according to their needs.

Identifying Stakeholders

Stakeholders

1. Organising Committee (OC) - Complete editing and viewing rights
2. Organising Team (OT) - Partial editing and complete viewing rights
3. Volunteer - Partial editing and viewing rights
4. Sponsor - Partial editing and viewing rights
5. Stall Owner - Partial editing and viewing rights
6. Attendees - Partial editing and viewing rights

Roles of Stakeholders

1. **Organising Committee -** They are a group of 5 - 10 people, acting like the most superior authority, and are responsible for managing everything for the fest. Each person takes under them a category like art, dance, theatre, etc. and is responsible for organising all the same events.

2. **Organising Team -** They are one hierarchy down the OCs; they are responsible for conducting and managing a particular event. Each event is organised by a group of 2 - 4 OTs. They keep a record of participants, winners and other specific details regarding the event like date, time, venue, etc.

3. **Volunteers -** They are the ones who assist the organising team for the smooth flow of the event. They are responsible for handling the crowd, maintaining the decorum, and performing the task ordered by the OTs, making the work a bit easier for them. They also need specific details about their event and general information about all ongoing activities.

4. **Attendees -** These are the people who come to attend the fest and make the best of their time. For ease in knowing the details about the fest, like where are some specific events happening, what are their timings etc. they can get all that from one place.

5. **Stall Owner -** They are the ones who set up stalls of different items, like food, beverages, promotional items, clothes, etc., from which the attendees and even the organisers can buy stuff. They need details more specific to their stall, like where the booth will be placed and the area they will be provided.

6. **Sponsor -** They are people from companies approached by the OTs and OCs to give some money or in-kind items to facilitate the events on a larger scale in exchange for promotional facilities, like banners at places, the allowance to set up their stall, claiming title rights etc.

Entities and Stakeholder Queries

Queries related to stakeholders

1. **Organising Committee**
    a. Details of OT members category wise (Art, Fun, Gaming, etc.)
    b. Estimated number of participants for each event
    c. Details of Volunteers in each event
    d. Details of sponsors based on different events. (Group by different categories)
    e. Remove OTs from the events
    f. Check or alter the budget for different events
    g. List cash and in-kind given to events by sponsors.
    h. Details of the winner from each event
    i. View remaining sponsorship spots to be claimed
    j. Number of sponsors contacted by each OT
    k. Compare budget allocated to different events.
    l. Allot venue and time for different events

2. **Organising Team**
    a. All details regarding their event
    b. Decide the prize money for different positions
    c. Detail of volunteers working under them
    d. Number of participants estimated for their event
    e. Declare winner for their event
    f. Get general information about different events
    g. List of events and their details with clashing time and other criteria(Type, Venue, etc.)
    h. Contact details of sponsors sponsoring their event
    i. Details of participants based upon different categories (Institute Name, Age, etc.)

3. **Volunteer**
    a. Details of OTs for their event
    b. Number of participants for their event
    c. Time and venue for their event
    d. List of clashing events with other details
    e. Update the number of participants contacted by them

4. **Attendees**
    a. Details for events taking place on different days
    b. Register for different events
    c. Compare events based on different criteria (prize money, time, etc.)
    d. List events they have registered for.
    e. Does any of the events that they are participating in overlap with each other?
    f. Location of different stalls based on their type (food, promotional items, etc.)
    g. View contact details of stall owners
    h. Contact details of OC, OT for their events.

5. **Stall Owner**
    a. List of other competitive stalls based on different categories(type, area, etc.)
    b. Contact details of OCs
    c. Contact details of other stall owners in the same area as theirs.
    d. List of events happening around the same location as theirs.
    e. The current footfall of the fest

6. **Sponsor**
    a. List of events that they are sponsoring.
    b. The predicted number of participants for the event they are sponsoring.
    c. Modify the amount to be given for an event.
    d. Contact details of OCs and OTs for the event they are sponsoring
    e. List and details of all events in the fest.

Entities and their attributes

1. **Student:**
    a. **Roll number**
    b. Name
        i. First name
        ii. Last name
    c. Year
    d. E-mail
    e. phone number

2. **Organising Committee:**
    a. Roll number
    b. Type
    c. OC ID

3. **Organising Team:**
    a. Roll Number
    b. Number of sponsors contacted
    c. OT ID

4. **Event:**
    a. **Event Number**
    b. Budget
    c. Requirements
    d. Venue
    e. Time
        i. Start Time
        ii. End Time
    f. Type
    g. Name
    h. Date
    i. Winner Registration ID
    j. Prize
        i. 1st prize money
        ii. 2nd prize money
        iii. 3rd prize money

5. **Attendees:**
    a. **Registration ID**
    b. Name
        i. First Name
        ii. Last Name
    c. Date Of Birth
    d. Institute Name
    e. Phone Number
    f. Email ID

6. **Stall:**
    a. **Stall ID**
    b. Location
    c. Area
    d. Type

7. **Sponsor:**
    a. **Sponsor Number**
    b. Phone Number
    c. Email

8. **Stall Owner:**
    a. ***Stall ID***
    b. Name
        i. First Name
        ii. Last Name
    c. Phone Number
    d. Email

9. **Volunteer:**
    a. *Roll Number*
    b. Number of participants contacted
    c. **Volunteer Id**

Relationship between Entities

1. OC **manage** OT
2. OT **organise** Events
3. Volunteers **assist** OT
4. OC **is a** student
5. OT **is a** student
6. Volunteer **is a** student
7. Participant **is an** attendee
8. Non Participant **is an** attendee
9. Attendees **visit** stall
10. Participant **participates** in Event
11. Sponsor **sponsors** Event

Transactions

1. Registration for the event
2. Updating the total budget
3. Changing stall location
4. Update prize money given to the winners
5. Update event details
6. Managing subordinates
7. Registration for entering the fest
8. Cash and in kind payment for events by the sponsors
9. Allocation of budget for each event

Composite Attributes

1. Name
    a. First Name
    b. Last Name

2. Prize
    a. 1st Prize
    b. 2nd Prize
    c. 3rd Prize

3. Type of Sponsorship
    a. Cash
    b. In kind
4. Time
    a. Start Time
    b. End Time

Derived Attributes

1. Age
2. Year

Multivalued Attributes

1. Phone Number (Sponsor)
2. In kind

Schemas

1. **Event** (**Event Number**, Budget, Requirements, Date, Name, Start Time, End Time, 1st Prize, 2nd Prize, 3rd Prize, Type, Venue, Winner Reg ID)
2. **Attendees** (**Registration ID**, First Name, Last Name, Age, DOB, Institute Name, Email, Phone Number)
3. **Sponsor** (**Sponsor Number**, Email)
4. **Stall** (**Stall ID**, Location, Area, Type)
5. **Stall Owner** (***Stall ID***, First Name, Last Name, Phone Number, Email)
6. **Student** (**Roll Number**, First Name, Last Name, Year, Email, Phone Number)
7. **OC** (**OC ID**, Type, *Roll Number*)
8. **OT** (**OT ID**, Number Of Sponsors Contacted, *Roll Number*)
9. **Volunteer** (**Volunteer ID**, Number Of Participants Contacted, *Roll Number*)
10. **Assist** (**Volunteer ID**, **OT ID**)
11. **Participates** (**Registration ID**, **Event Number**)
12. **Sponsor Phone** (*Sponsor Number*, Phone Number)
13. **Sponsors** (*Event Number*, *Sponsor Number*, Cash)
14. **In Kind** (*Sponsor Number*, *Event Number*, In kind)

Key :

Primary Key *Foreign Key* ***Partial Key***

Constraints, Range values and Data Types

a. Event

Field	Type	Null	Key	Default	Extra
event_number	int	NO	PRI	NULL	auto_increment
event_name	varchar(15)	NO	NULL	NULL	NULL
event_date	date	YES	NULL	NULL	NULL
first_prize	int	YES	NULL	NULL	NULL
second_prize	int	YES	NULL	NULL	NULL
third_prize	int	YES	NULL	NULL	NULL
start_time	time	YES	NULL	NULL	NULL
end_time	time	YES	NULL	NULL	NULL
venue	varchar(15)	YES	NULL	TBD	NULL
budget	int	YES	NULL	NULL	NULL
requirements	varchar(200)	YES	NULL	Not Decided	NULL
event_type	varchar(15)	NO	NULL	NULL	NULL
winner_id	int	YES	NULL	0	NULL

b. Student

Field	Type	Null	Key	Default	Extra
roll_number	int	NO	PRI	NULL	NULL
first_name	varchar(30)	NO	NULL	NULL	NULL
last_name	varchar(30)	YES	NULL	NULL	NULL
email	varchar(50)	YES	NULL	NULL	NULL
phone_number	varchar(10)	YES	NULL	NULL	NULL
year	int	YES	NULL	NULL	NULL

c. OC

Field	Type	Null	Key	Default	Extra
OC_ID	int	NO	PRI	NULL	auto_increment
roll_number	int	YES	NULL	NULL	NULL
type	varchar(15)	YES	NULL	NULL	NULL

d. OT

Field	Type	Null	Key	Default	Extra
OT_ID	int	NO	PRI	NULL	auto_increment
roll_number	int	YES	NULL	NULL	NULL
event_number	int	YES	NULL	NULL	NULL
OC_ID	int	YES	NULL	NULL	NULL
sponsors_contacted	int	YES	NULL	NULL	NULL

e. Volunteer

Field	Type	Null	Key	Default	Extra
volunteer_id	int	NO	PRI	NULL	auto_increment
roll_number	int	NO	NULL	NULL	NULL
participant_contacted	int	YES	NULL	0	NULL

f. Sponsor

Field	Type	Null	Key	Default	Extra
sponsor_number	int	NO	PRI	NULL	NULL
email	varchar(50)	YES	NULL	NULL	NULL

g. Attendees

Field	Type	Null	Key	Default	Extra
registration_id	int	NO	PRI	NULL	auto_increment
first_name	varchar(15)	NO	NULL	NULL	NULL
last_name	varchar(15)	YES	NULL	NULL	NULL
email	varchar(30)	NO	NULL	NULL	NULL
institute_name	varchar(30)	YES	NULL	NA	NULL
phone_number	varchar(10)	NO	NULL	NULL	NULL

h. Sponsors

Field	Type	Null	Key	Default	Extra
event_number	int	YES	NULL	NULL	NULL
sponsor_number	int	YES	NULL	NULL	NULL
cash	int	YES	NULL	NULL	NULL

i. Stalls

Field	Type	Null	Key	Default	Extra
stall_id	int	NO	PRI	NULL	NULL
stall_type	varchar(30)	NO	NULL	NULL	NULL
location	varchar(30)	NO	NULL	NULL	NULL
stall_area	varchar(30)	NO	NULL	NULL	NULL

j. Stall Owner

Field	Type	Null	Key	Default	Extra
first_name	varchar(15)	NO	NULL	NULL	NULL
last_name	varchar(15)	YES	NULL	NULL	NULL
email	varchar(30)	NO	PRI	NULL	NULL
phone_number	varchar(10)	NO	NULL	NULL	NULL
stall_id	int	YES	NULL	NULL	NULL

k. Assists

Field	Type	Null	Key	Default	Extra
volunteer_id	int	YES	NULL	NULL	NULL
OT_ID	int	YES	NULL	NULL	NULL

l. Participates

Field	Type	Null	Key	Default	Extra
registration_id	int	YES	NULL	NULL	NULL
event_number	int	YES	NULL	NULL	NULL

m. In-kind

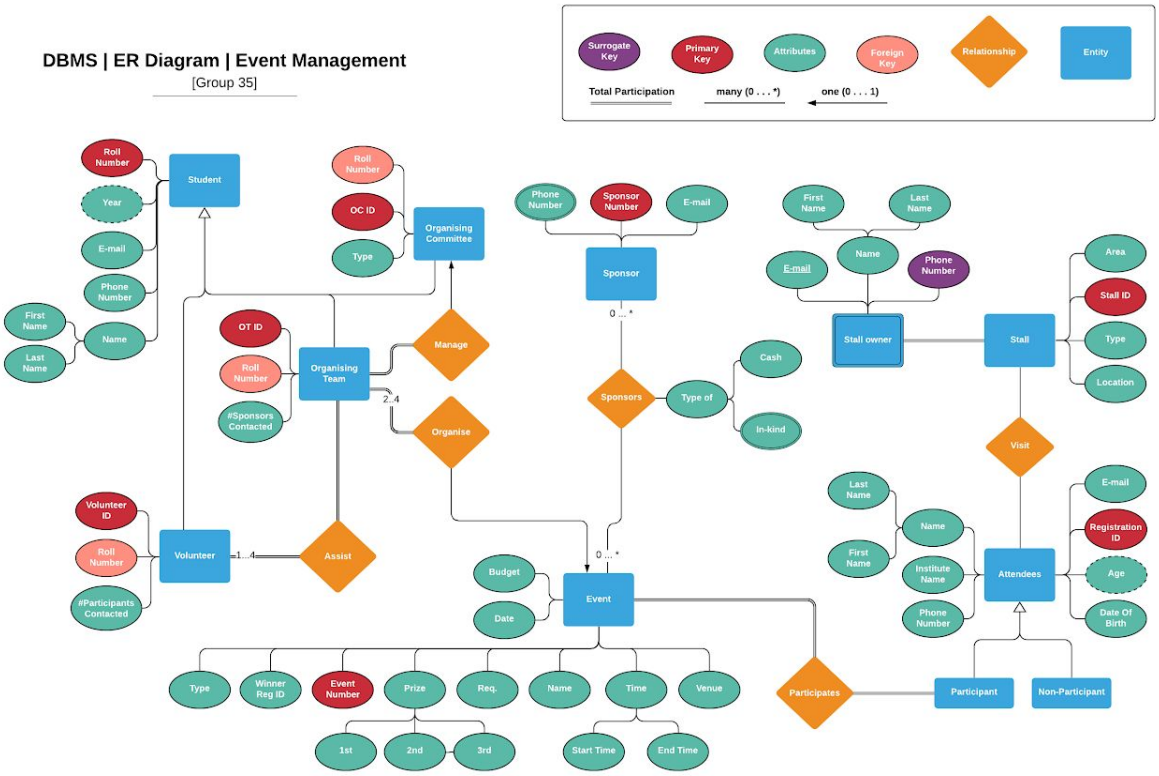
Field	Type	Null	Key	Default	Extra
event_number	int	YES	NULL	NULL	NULL
sponsor_number	int	YES	NULL	NULL	NULL
in_kind_details	varchar(100)	YES	NULL	NULL	NULL

n. Sponsor Phone

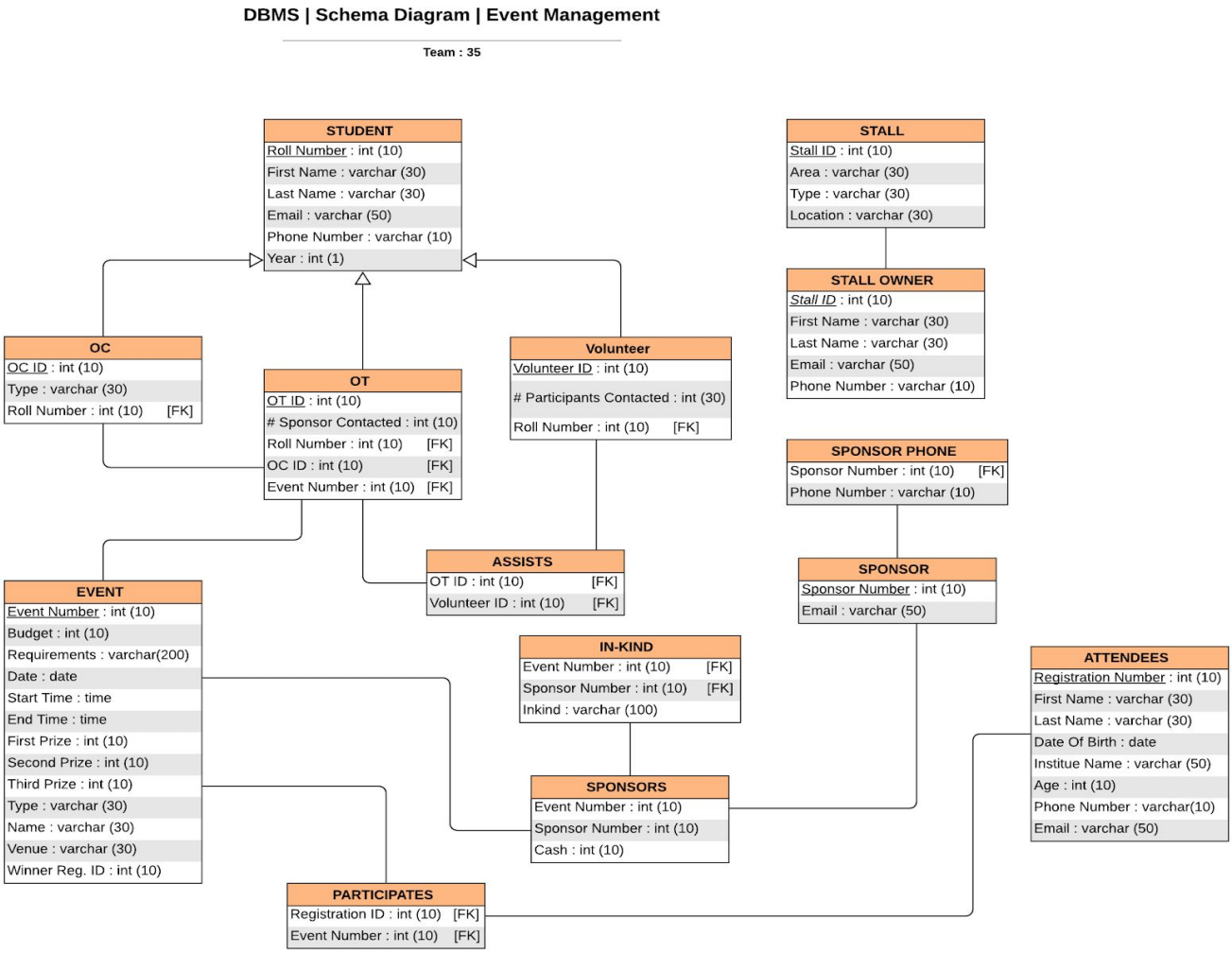
Field	Type	Null	Key	Default	Extra
sponsor_number	int	YES	NULL	NULL	NULL
phone_number	varchar(50)	YES	NULL	NULL	NULL

ER Diagram and Relationship Schemas

ER DIAGRAM:



Schema Diagram:



Links:

Github Link	ER Diagram Link	Schema Diagram Link
https://bit.ly/3ukdbPF	https://lucid.app/lucidchart/144a8587-824f-4430-b6c1-6b00b66ef25b/view?page=0_0#	https://lucid.app/lucidchart/c29d7694-e914-4664-a90b-c7eb92e0585c/view?page=0_0#

What makes our project different?

It is the first time a fest management system for our college is being built. Many other systems implemented are for college bodies only; this one is for the students and by the students.