# 19CSE204 Object-Oriented Paradigm

**Project Documentation** 

Abstract Number: 11

**Event Management System** 

# Group-16

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## **Software Requirement Specification**

An event management group needs a database to help them in managing the different events that they help organize. Each event managed has a description which includes the name, category-level (like high-class, middle-class). The amount charged, the options they provide including food, venue, sub-events, specialized employees, etc. For example, a marriage may have a musical sub-event. For each of the options, separate information needs to be maintained like different types of food (including price), different venues (including address). The customers need to book for an event based on these available options. So, the customer data is also stored. The management group has employees who are allotted separate duties for each event.

## Tools, Softwares, and Languages Involved

- LucidChart ER Model, UML Class Diagram and Use Case
- pgAdmin 4 Database Design and Construction
- NetBeans IDE GUI Development
- Eclipse JDBC Connectivity and other functionality
- Languages Java and PostgreSQL

#### Introduction

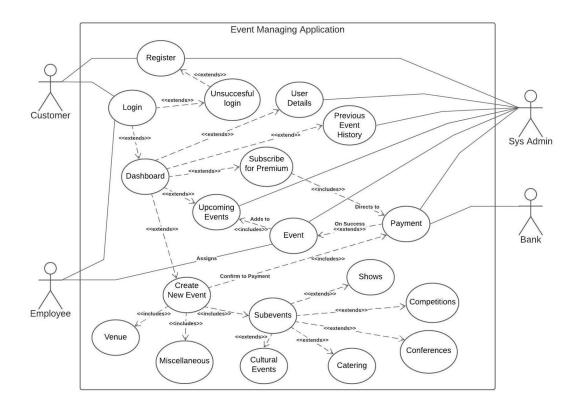
Planning a business event is a mammoth task. You need to find a venue, create the agenda, get sponsors on board, sort out seating plans and meal arrangements—and that's all before you even start selling tickets.

Event management software makes the process less of a headache. Event planners confirm: In a <u>recent survey from Social Tables</u>, 35% of respondents said that event technology has been the biggest gamechanger for the industry.

#### **Use Case**

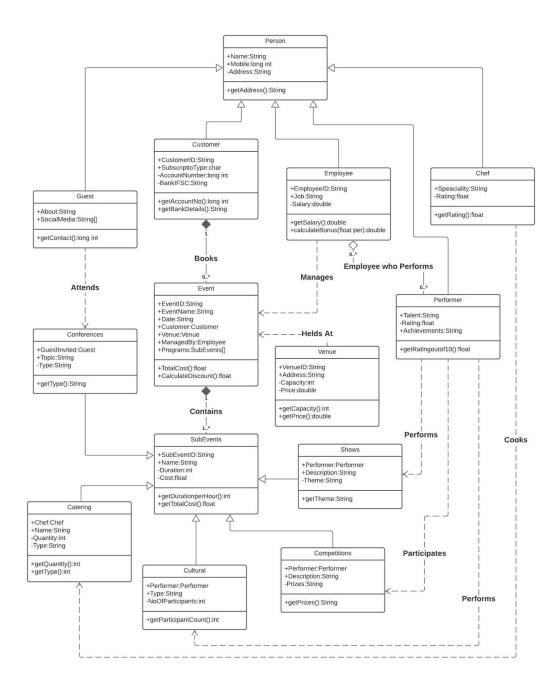
A UML use case diagram is the primary form of system/software requirements for a new software program underdeveloped. Use cases once specified can be denoted both textual and visual representation (i.e. use case diagram). It is an effective technique for communicating system behavior in the user's terms by specifying all externally visible system behavior.

In our use case, there are four users who come in contact with the application. They are Customer, Employee, Bank, and System Admin. And some of the functionality associated with the application are login, registering, creating new events, searching, and so on.



# **Class Diagram**

In software engineering, a class diagram in the Unified Modeling Language (UML) is a type of static structure diagram that describes the structure of a system by showing the system's classes, their attributes, operations (or methods), and the relationships among objects. We have created classes based on the entities we formed in ER-Model and using OOPS concepts we have linked each class. Each arrow depicts its relationship kind and the prefixes and the datatypes on the class members show the access modifiers and variable type/return type.



# **Application of OOPS concepts**

## • Encapsulation aka Data-Hiding

Many variables in each class were declared as private, protected, and public, for example, the bank ifsc and account number were declared as private in the customer class. For accessing these some getter and setter methods were also created.

#### Inheritance

This has been used widely in our design, for example, all different types of people like a customer, employee, performer, etc.. are

subclasses of person class, all subevents like catering, shows, conferences, etc.. were subclasses of the subevent class.

#### Composition

Many classes exhibit this property. For example, the event class object requires a variety of other class objects to initialize such as the customer who books the event, the venue where it's held, the employee who's assigned to manage, etc.

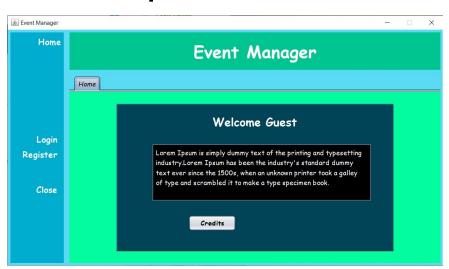
#### Aggregation

There is one aggregated class in our development, that is the performer class, there can be an employee who was hired to perform like an anchor.

#### Association

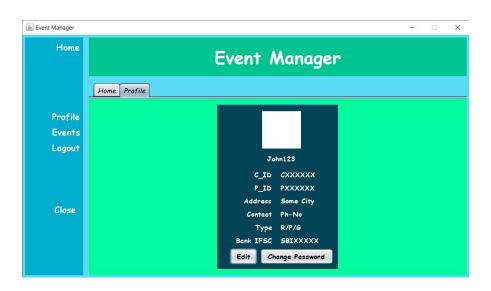
Every other weak relationship between classes is an association. For example, the subevents array in the event class can be empty.

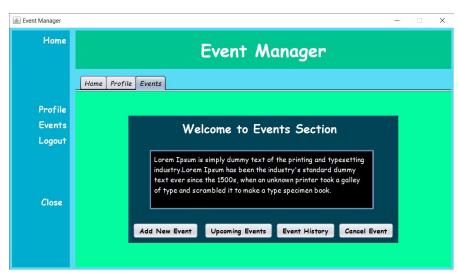
## **GUI Development and Screenshots**

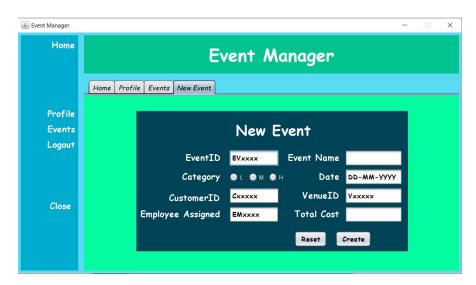


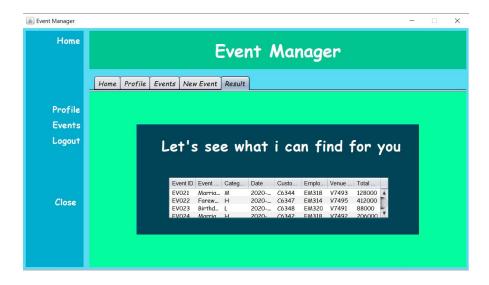


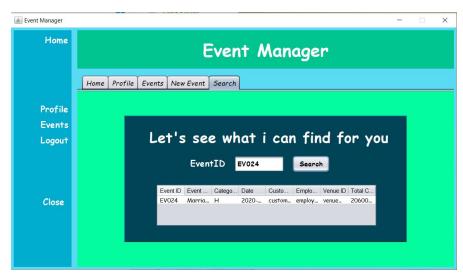












## **Links to Code Repositories**

- GitHub: <a href="https://github.com/ucantfindme/JavaDBMS-Project">https://github.com/ucantfindme/JavaDBMS-Project</a>
- One Drive:

https://amritauniv-my.sharepoint.com/:f:/g/personal/spkrishnanaga m\_am\_students\_amrita\_edu/EnK\_K7hu1atHoRlGdmeh4hUBLiCf6 GsaKyrlXqyT-IDZgQ?e=s3Ezph

## Conclusion

An event management tool is a wonderful way of managing events successfully. Such software is also responsible for assisting you to go beyond your ROI proficiency. An event management software is of top

priority for any modern-day event planner. There are many benefits of using such software.

- Easy and convenient access
- Positively Impacts the Work Flow
- Reduced cost
- Export Report with Ease

## **Authors**

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