The title of the project: Online Event Booking

Group Number-07

Group Members:

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Introduction

In today's fast-paced world, organizing events can be a challenging task. An Online Event Management System can simplify the entire event planning process, from booking venues to managing guest lists and payments. With this system, event planners can easily keep track of all the essential details and ensure that everything runs smoothly. For instance, suppose you're organizing a wedding or corporate event. In that case, the Online Event Management System can help you manage guest lists, book caterers, photographers, and other vendors, generate invoices and track payments. The system can also offer features like customized catering menus and media services for clients to personalize their event experience. In summary, an Online Event Management System streamlines event planning, providing a one-stop solution for all event-related requirements.

Motivation

Our motivation for developing an Online Event Management System (EMS) is to simplify and streamline the event planning process for users. By providing a centralized platform for booking various event-related requirements, we hope to save time, reduce stress, and create successful events.

System request

Project Sponsor:

ASHAKUZZAMAN ODREE, MD ASIFUL ALAM, AURCHI ROY

Business Need:

The event management system is a platform that is designed to simplify the process of organizing and managing events. This platform aims to bring event planners and attendees together to create seamless and memorable experiences. The event management system will allow event organizers to manage all aspects of the event, including guest lists, scheduling, budgeting, and marketing.

With this platform, event organizers can easily create and customize event pages, invite attendees, manage RSVPs (Gather all guests info and invite) , and collect payments all in one place. The platform will also provide real-time updates and notifications to attendees, keeping them informed about event venue details, changes, and reminders.

Additionally, the event management system will provide a variety of tools and features to help event organizers promote their events, including social media integration, email marketing, and analytics. This will help organizers reach a wider audience and increase attendance. Overall, the event management system is a comprehensive solution that helps event organizers streamline their event planning process and deliver exceptional experiences to attendees.

Business Requirements:

The business requirements for the event management system platform would include the following:

1. User Management: The platform should have the ability to manage multiple user accounts, including event organizers and attendees, with different levels of access and permissions.
2. Event Creation: Event organizers should be able to create and customize event pages, including event details, date, time, location, and description.
3. Guest List Management: Event organizers should be able to invite attendees and manage RSVPs.
4. Payment Processing: The platform should have integrated payment processing capabilities, allowing event organizers to collect payments from attendees.
5. Marketing Tools: The platform should provide marketing tools, such as social media integration (Poster or ad generator site), email marketing, and analytics, to help event organizers promote their events.
6. Real-Time Updates: The platform should provide real-time updates and notifications to attendees, keeping them informed about event details, changes, and reminders.

7. Reporting and Analytics: The platform should provide reporting event data and analytics capabilities to help event organizers track attendance, revenue, and other key metrics.
8. Security: The platform should have robust security measures in place to protect sensitive information, including payment information and personal data.
9. User Experience: The platform should have an intuitive and user-friendly interface, making it easy for event organizers and attendees to use.
10. Scalability: The platform should be scalable to accommodate growth and support a large number of users and events.
11. Technical Support: The platform should provide reliable technical support and customer service, including live chat and email support, to help users with any issues or questions.
12. Cost-Effective: The platform should be cost-effective and offer flexible pricing options to meet the needs of event organizers of all sizes.
13. Reliability: The platform should be highly reliable, with minimal downtime and high availability, to ensure events run smoothly without any interruptions.
14. Data Backup and Recovery: The platform should have robust data backup and recovery measures in place to protect event data and prevent data loss.

Tangible Values:

1. The event management system will save event organizers time and resources by streamlining event planning and management, reducing office administration expenses by 50-60%.
2. The event management system will eliminate the need for event organizers to hire additional staff, reducing employee costs by 100%. Also, the client can compare which is the best option for his event.
3. The platform will provide advertising opportunities for corporations, generating additional revenue of 1,500,000 to 1,800,000 taka per year.
4. The event management system will take a small percentage of each event registration fee, generating 150,000 to 300,000 taka in annual revenue.
5. The platform will offer paid promotions for events, generating 300,000 to 400,000 taka in annual revenue.
6. The platform will provide valuable data and insights through analytics, allowing event organizers to make informed decisions and improve event performance. Also can 5-10% discount for old clients.
7. The event management system will improve the overall attendee experience, increasing customer satisfaction and loyalty.

Intangible Values:

1. Time savings: By automating many tasks such as attendee registration, scheduling, and communication, an event management system can save time for event planners, allowing them to focus on other important aspects of the event.
2. Improved attendee experience: A well-designed event management system can provide attendees with a smoother, more organized experience, which can increase their satisfaction and willingness to attend future events.
3. Data insights: Event management systems can provide valuable data on attendee behavior, preferences, and feedback, which can help event planners improve future events.
4. Brand building: By providing a seamless, professional event experience, an event management system can help to build and reinforce the brand of the organization hosting the event.
5. Convenience: The ability to book and manage all event-related services in one place, at any time, from anywhere.
6. Customization: The ability to create a customized event plan based on individual requirements and preferences.
7. Collaboration: EMS allows for easy communication and collaboration between different vendors involved in an event.
8. Data management: The system stores all event-related data in a structured format, enabling better analysis and informed decision-making.

Special Issues or Constraints:

The event management system is vulnerable to abuse from-

1. Online impersonators, who may post harmful or false information.
2. Damaging the platform's reputation and user cohesion.
3. Fake reviews and insufficient funding may also hinder event success.
4. In critical cases, the platform may need to reduce fees to support critical events like disaster relief.

Requirement Analysis

Functional Requirements:

1. Add/Delete Client Orders: The system provides this facility to the manager and customer both.
2. Create/Edit/Delete Client Account: Customers can create and edit his/her account details, whereas the manager can delete customers' accounts, along with editing and viewing it.
3. View Services: Customers have an option to view the list of services offered by the firm.
4. Cancel Bookings: Manager can cancel any customer's booking.

5. Data Entry to Database: All of the data inserted into the system is stored into a database in the backend.
6. Customized Catering Menu: Customer is able to create a custom menu depending on his/her preferences.
7. Generate Event ID: A unique id is allocated to each event in order to access it easily.
8. Generate Customer ID: Each customer will be assigned a unique id associated with his/her email address.
9. Generate Employee ID: Each employee will be assigned a unique id associated with his/her email address.
10. Generate Catering ID: A unique id is associated with each caterer (vendor) to access their information from the database.
11. Generate Total Bill: A total bill will be computed from all the choices selected by the customer inclusive of taxes and this bill will be displayed on the screen which the user can print.
12. Enter Payment Details: Customers will be asked to enter payment details after selecting the payment option.
13. Order Confirmation: This screen will be displayed showing that the order has been confirmed and awaiting approval.
14. Book Event: Customers can book events as per his/her requirements.
15. Add/Remove Employee: Manager will have the facility to add or remove an employee from the database.
16. Approve/Deny Order: All the confirmed orders will need to be approved by the manager.
17. Add/Remove Vendors: Manager has the facility to add or remove a vendor (caterer or studio).

18. View Orders: Customer is able to view his order. Moreover, the manager can view a particular order and he/she can view all orders too.
19. Client Sign In: When a customer signs in, his/her credentials are verified from the database and then allowed access into the system.
20. Manager Sign In: When a manager signs in, his/her credentials are verified from the database and then allowed access into the system.
21. Employee Sign in: When an employee signs in, his/her credentials are verified from the database and then allowed access into the system.
22. Pop-up Message: Whenever there is an error, a popup message with the error details will be displayed.

Non-Functional Requirements:

- **Performance requirements:**

1. The system should be able to handle a large number of concurrent users and events without any system lag or delay.

2. The system must be secure, with proper user authentication and encryption of sensitive information like user data and payment details.
3. The system must be scalable to accommodate future growth and expansion of the business.
4. The system should have a backup and recovery mechanism to ensure data integrity and availability in case of system failure or data loss.
5. The system must comply with industry standards and regulations related to data protection and privacy.

- **Security requirements:**

1. Access to public information will be restricted to fundraisers and administrators.
2. A warning will be issued for login attempts from unknown devices.
3. Two-factor authentication will be implemented for added user account protection.
4. Users will be able to change their passwords, with alerts sent when such changes are made.
5. Login information will be highly safeguarded with encrypted password.
6. Each email can only be associated with one account, and user data will be restricted to administrators.
7. Payment gateways must be properly verified and secured.

- **Operational requirements:**

1. Intuitive interface for finding event locations and cross-platform compatibility for ease of use, with a responsive system.
2. The system verifies that the customer's information is accurate and up-to-date, ensuring that all communication and transactions are valid and secure. Admin checks site statistics to improve user experience.

- **Cultural and political requirements:**

1. The system should take into account any laws, regulations or policies that apply to the event being planned, and ensure that it is compliant with these rules.
2. The system considers the cultural practices and customs of the event location and design the event accordingly.

- **Maintainability Requirements:**

1. The platform's codebase should be well-organized and documented to make maintenance and updates easier.
2. The platform should be modular and scalable, allowing for future development and customization.
3. Any updates or changes made to the platform should be thoroughly tested to ensure they do not introduce new bugs or issues.

- **Usability Requirements:**

1. The platform must be built with user-friendly and easy to navigate, with a clean and intuitive interface.
2. The platform's functionality has to be clearly labeled and organized, with simple and consistent workflows.
3. The platform is accessible to a wide range of users, including those with disabilities or language barriers, and should follow industry-standard usability guidelines.

Description for Use-case Diagram

There are four major actors of our online event management system which are customers, Admin use, venue owners/managers, and system administrators.

Customers:

The customer use case diagram for the online event management system shows that customers can register for an account, browse available events and can select their interested event slot. They can also cancel their event registration, but it will need to be approved by the event Admin. Customers can view their event history, Can check popular event venues , and make payments for their

registered events using the available payment gateways. Additionally, they can request for assistance and get help through the system from the event Admin.

System administrators:

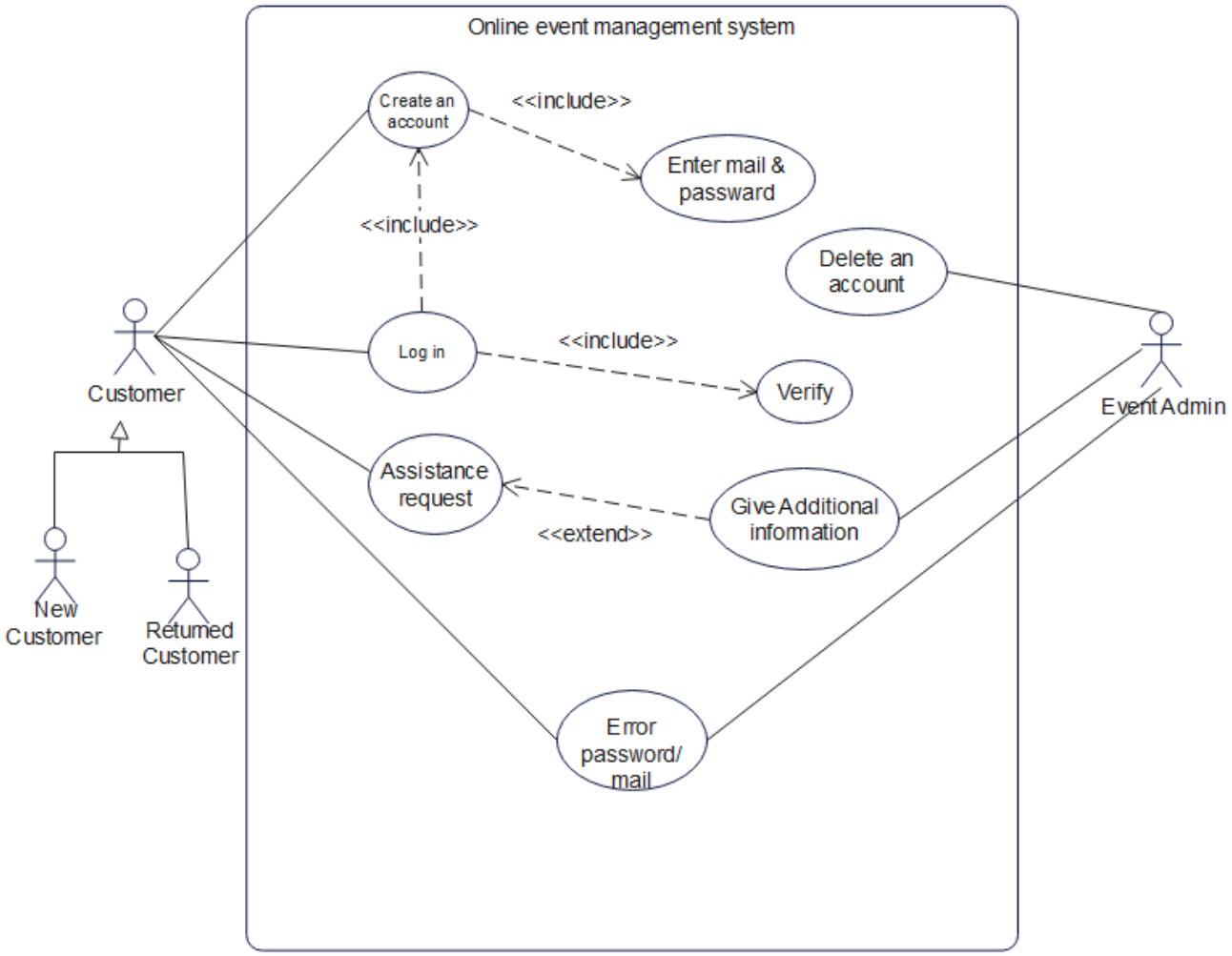
System administrators can monitor system performance, detect and fix any issues or bugs, and ensure that the system is continuously up. They can also seek help from the admin and provide feedback to improve the system.

Event Admin Use Case Diagram :

Lastly, our final actor is Admin who can perform create, retrieve, update and deletion of events due to emergency issues and Staff Members , Create voucher coupons. Analytics to monitor event performance, revenue, and feedback from attendees. Also can give help advice to system administrators.

Use Case Diagram:

There are three major actors of our online event management system which are customers,Event Admin and system administrators.


Online event management system
Create an account
<<include>>
Enter mail & passward
<<include>>
Delete an account
Log in
<<include>>
Verify
Customer
Event Admin
Assistance request
Give Additional information
<<extend>>
New Customer
Returned Customer
Error password/ mail

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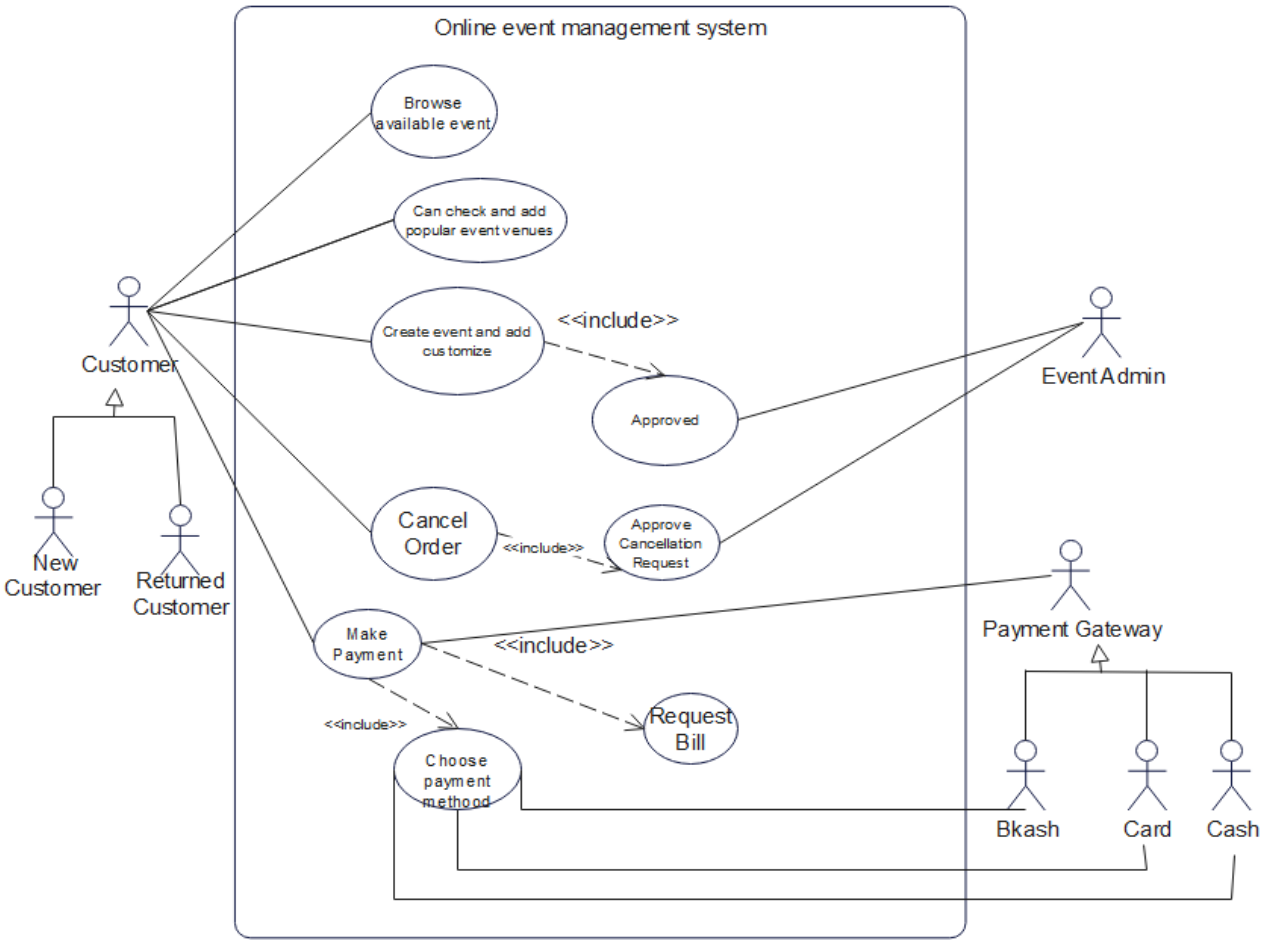
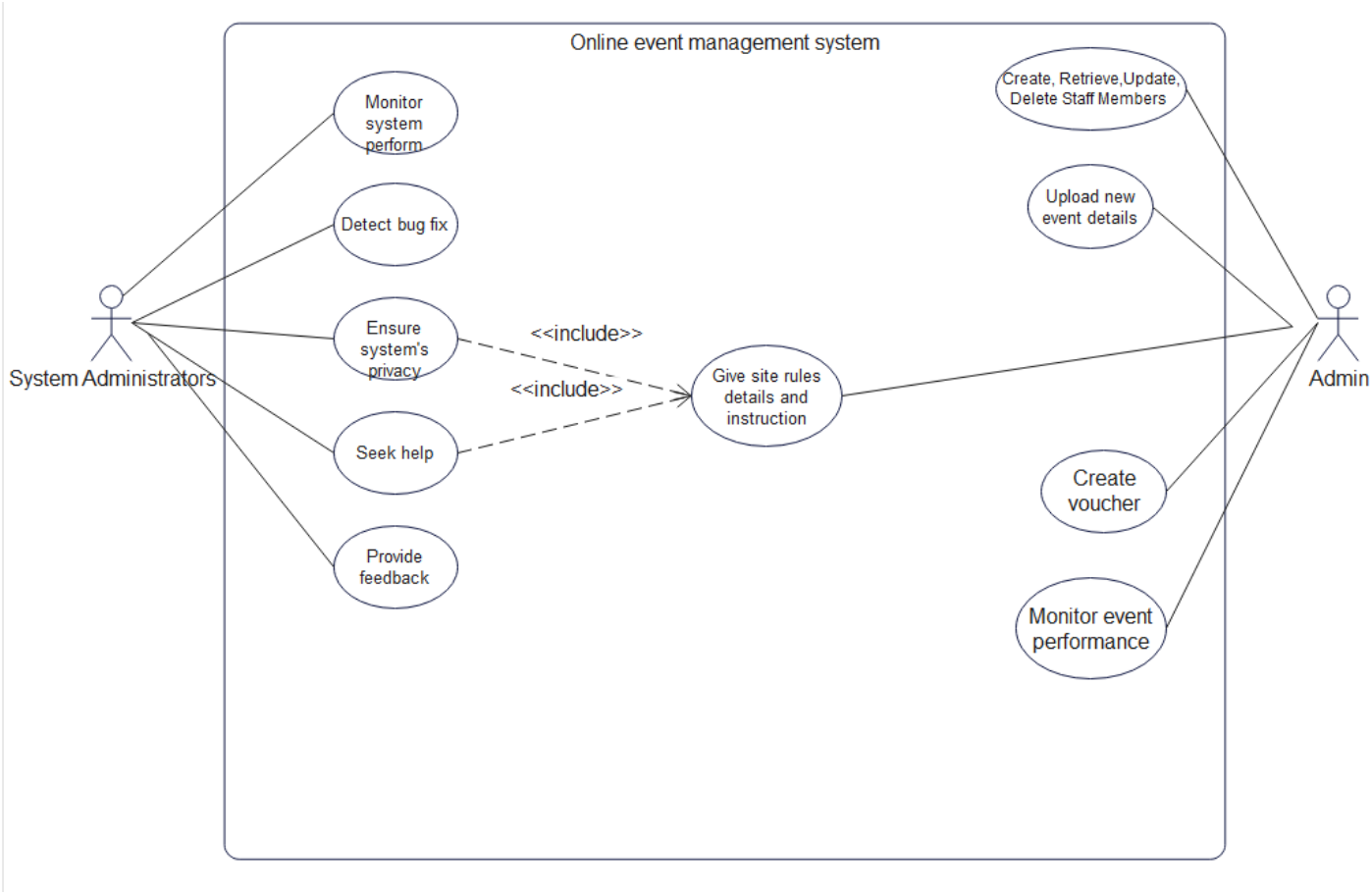
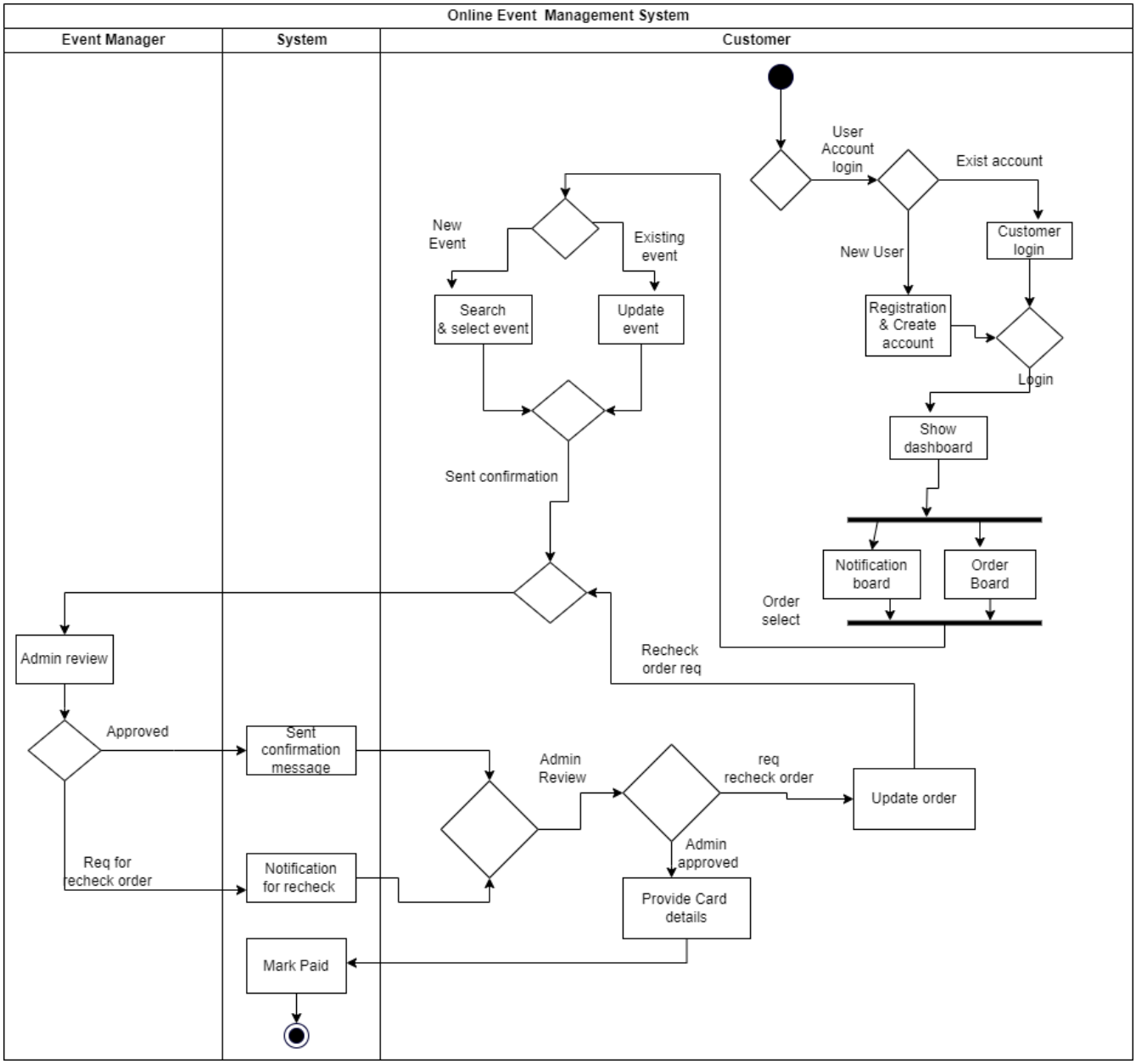

Online event management system
Browse available event
Can check and add popular event venues
Create event and add customize
<<include>>
Approved
Cancel Order
<<include>>
Approve Cancellation Request
Make Payment
<<include>>
<<include>>
Request Bill
Choose payment method
Customer
New Customer
Returned Customer
Event Admin
Payment Gateway
Bkash
Card
Cash


Online event management system
Monitor system perform
Detect bug fix
Ensure system's privacy
Seek help
Provide feedback
<<include>>
<<include>>
Give site rules details and instruction
Create, Retrieve,Update, Delete Staff Members
Upload new event details
Create voucher
Monitor event performance
System Administrators
Admin

Activity Diagram

Description for Activity Diagram:

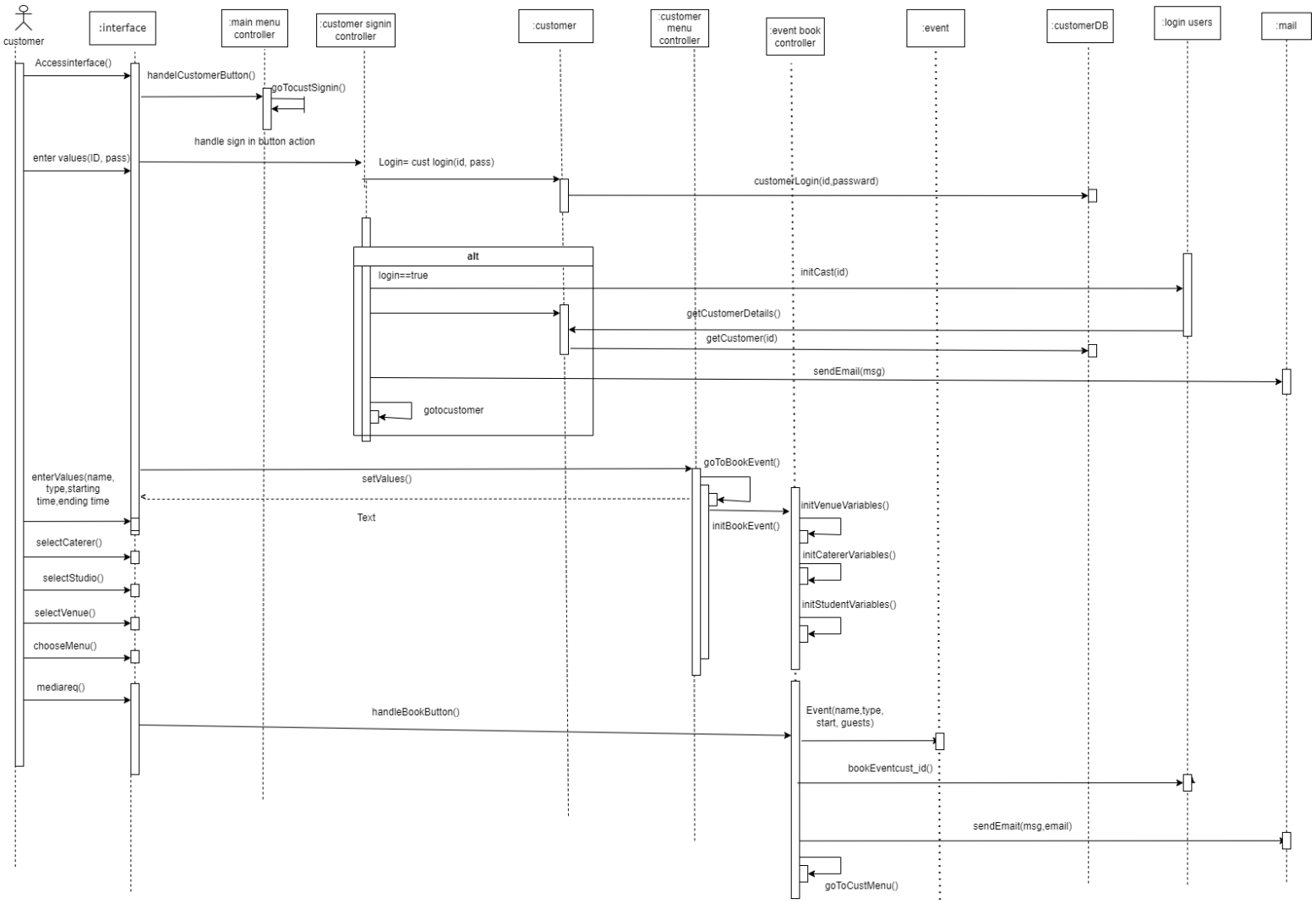
There are multiple decision and join nodes in the diagram. It covers the activities that occur when a user (event manager) logs in to the system and either registers for an event or customizes an existing event. It also covers the activities that an event admin can perform, such as editing event details or managing attendees. The diagram includes decision and join nodes to depict various decision points in the process flow. Overall, the diagram provides a comprehensive view of the online event management system's functionality and the interactions between the users and the system.


Online Event Management System
Event Manager
System
Customer
User Account login
Exist account
New Event
Existing event
New User
Customer login
Search & select event
Update event
Registration & Create account
Login
Show dashboard
Sent confirmation
Notification board
Order Board
Order select
Admin review
Recheck order req
Approved
Sent confirmation message
Admin Review
req recheck order
Update order
Admin approved
Req for recheck order
Notification for recheck
Provide Card details
Mark Paid

Sequence diagram (Swimlane)

Description for Activity Diagram (Swimlane):

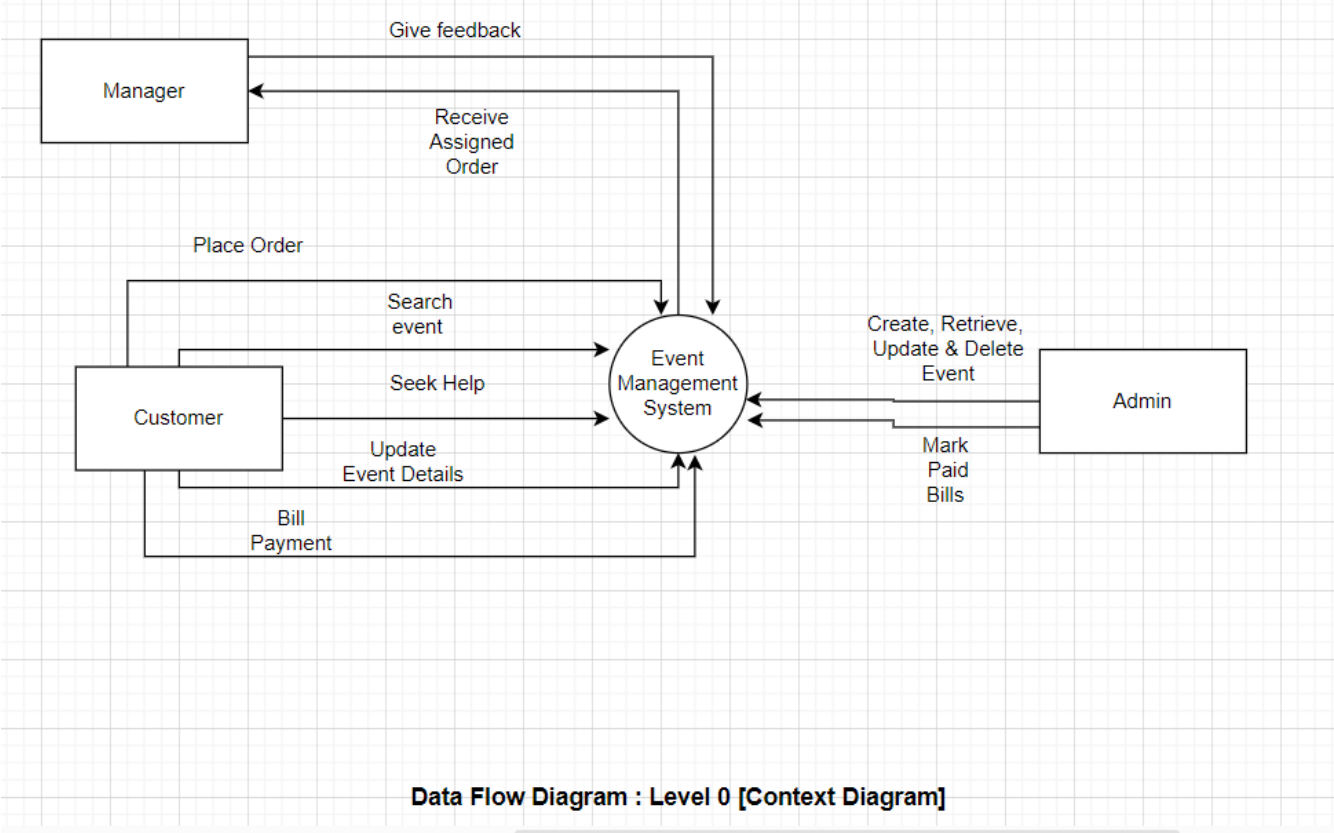
The system sequence diagrams for the selected use cases may include events such as customer logins, event selection, payment processing, and event analytics. These diagrams serve as a summary of the individual use cases and help to clarify the sequence of events for all parties involved in the system.



Data flow diagram

Description for DFD (Context Diagram):

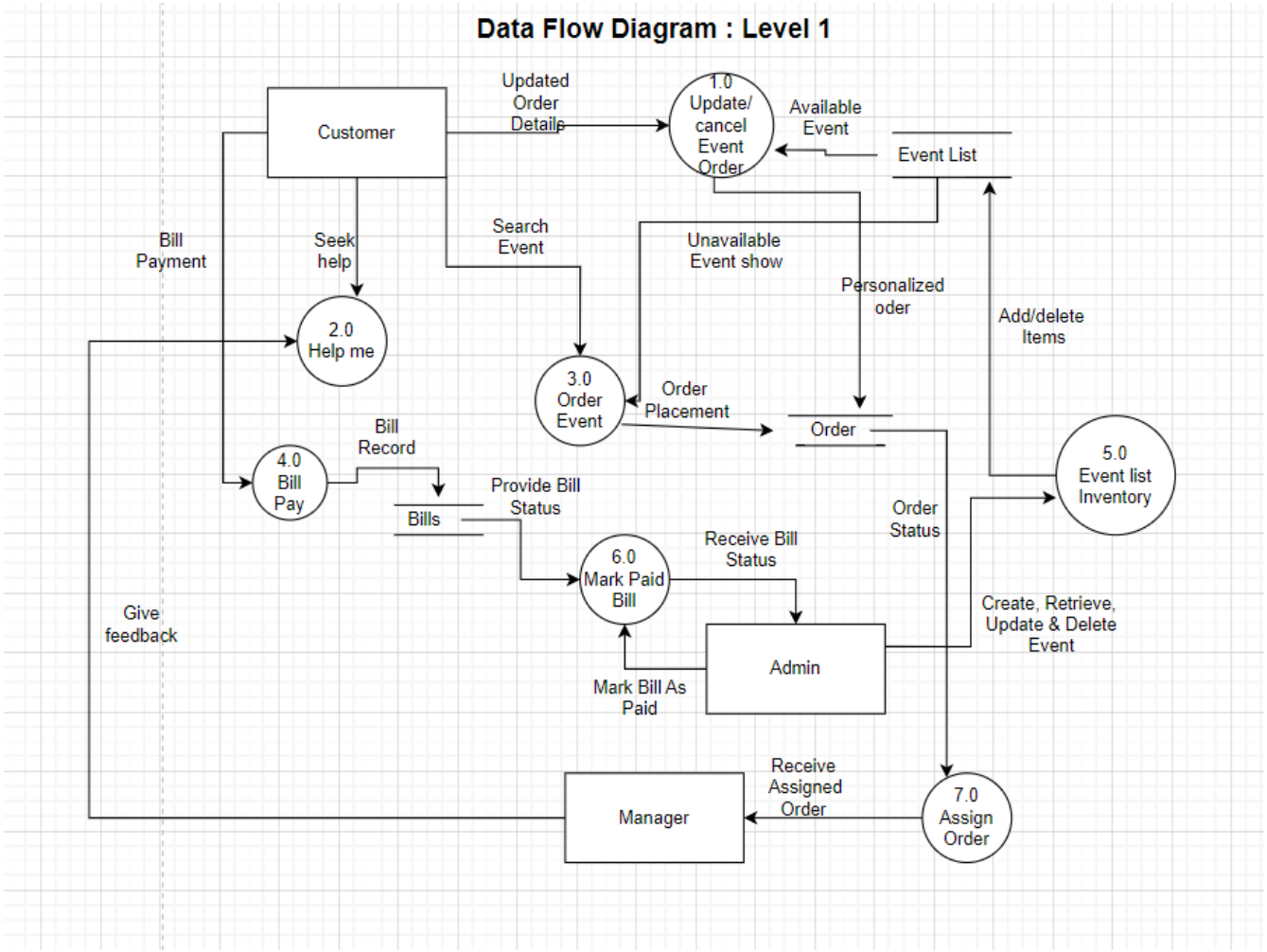
For an online event management system, the Level-0 DFD depicts the system as a single process that interacts with external entities such as customers, event administrators, and payment gateways. The diagram shows the primary inputs to the system, the processing of this information, and the resulting outputs such as event registration confirmations, event analytics. Additionally, the Level-0 DFD shows any external entities that interact with the system, such as payment gateways.



Data Flow Diagram : Level 0 [Context Diagram]

Description DFD (Level-1 Diagram):

For an online event management system, the Level-1 DFD would provide a more detailed look at the system's processes and data flow, breaking it down into sub-processes such as event selection, customization, payment processing, and event registration confirmation.



Conclusion

In conclusion, an online event management system is a sophisticated software platform that streamlines the process of event planning, registration, and management. Through the use of various diagrams, such as the Level-0 and Level-1 Data Flow Diagrams, the system's processes and data flow can be visually represented, making it easier to understand its overall functionality. The system provides a user-friendly interface for event managers and attendees, allowing them to interact with the platform seamlessly. It also facilitates payment processing and generates analytics reports to help event organizers better understand their audience and optimize future events. Overall, an online event management system is a valuable tool that simplifies event planning and execution, making it an essential part of modern event management.