CSE 307: System Analysis and Design

Project Name: Event Management System

App Name: Eventlify

Submitted By

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1 SECTION 1

Abstract: *This term paper explores the significance of Event Management Systems (EMS) in modern event planning and execution. The paper delves into the key functionalities of EMS, including event creation, attendee registration, communication, resource allocation, task tracking, budget management, on-site coordination, data analytics, security, and scalability. By analyzing real-world examples and industry trends, this paper showcases how EMS enhances efficiency, collaboration, and overall success in various events, from conferences to social gatherings. It emphasizes the role of technology in simplifying complex processes, ensuring attendee satisfaction, and achieving event goals. Through a comprehensive examination of EMS features and benefits, this term paper underscores the pivotal role of such systems in shaping the future of event management practices.*

Keywords: EMS, event management, data-driven,

1.1 Introduction

The art of event planning and administration has become a complicated activity in today's fast-paced world, requiring careful coordination, good communication, and efficient execution. The dynamic nature of events, whether they are conferences, trade exhibitions, weddings, or business meetings, require a thorough strategy that is in line with the changing expectations of participants and stakeholders. Event Management Systems (EMS) have evolved as vital technical tools that transform the way events are designed, organized, and carried out in response to these difficulties.

An Event Management System encompasses a range of software solutions designed to simplify and enhance the complexities of event planning. From creating event schedules to managing attendee registrations, allocating resources, and analyzing data, an EMS serves as a central hub for collaboration and organization. With the integration of cutting-edge technologies, including automation, data analytics, and real-time communication, EMS empowers event planners and organizers to navigate the intricate landscape of event logistics more efficiently than ever before.

This term paper aims to explore the various facets of Event Management Systems, dissecting their functionalities, benefits, and implications for the event industry. By delving into real-world

examples and industry trends, we will gain insight into how EMS is reshaping the event management landscape and setting new standards for successful event execution.

1.2 History leading to project request

The evolution of event planning and management has been deeply intertwined with technological advancements and changing societal demands. In the past, planning events required a lot of manual labor, spreadsheets, and paperwork, which frequently caused inefficiencies, communication breakdowns, and logistical difficulties. A requirement for a more structured and efficient approach arose as events increased in complexity and size.

A critical turning point was reached with the introduction of computers and the internet. Simple computer programs were first developed to simplify processes like registration and managing guest lists. The development of web-based platforms and the inclusion of databases, which permitted real-time updates, online registration, and secure data storage, brought about the genuine shift.

The limitations of current methods became clear over time as events changed and became more complex. Event management systems (EMS) were created because of the need for seamless communication, precise resource allocation, attendee engagement, and data-driven insights. A variety of capabilities were included in these systems, including configurable event design, participant management, budget tracking, and on-site coordination.

The COVID-19 epidemic confronted the industry with previously unheard-of difficulties as the global event scene continued to change, requiring a shift toward virtual and hybrid events. This change emphasized even more the requirement for a strong EMS that could serve both physical and virtual event forms.

The request for an event management system project is a reasonable progression considering this history and the growing complexity of event management. The goal of the project is to employ technology to address the drawbacks of conventional approaches by providing a centralized,

effective, and user-friendly platform to improve the preparation, execution, and general success of various events in the contemporary day.

1.3 Project Analysis

Aspect	Problem	Solutions	Opportunities
Problem - User Experience	Users find it challenging to navigate through the platform, resulting in frustration and a high bounce rate.	Improve the user interface and design to enhance user experience. Implement intuitive navigation and clear calls to action.	Opportunity to increase user retention, engagement, and conversion rates, leading to higher customer satisfaction and repeat business.
Problem - Event Coordination	Event planners struggle with coordinating multiple aspects of an event, such as vendors, attendees, and schedules, leading to inefficiencies and errors.	Develop a comprehensive event coordination feature that includes tools for vendor management, attendee communication, and automated scheduling.	Opportunity to streamline event planning processes, reduce errors, and save time, making event planners more efficient.
Problem - Budget Management	Users often exceed their event budgets due to inadequate budget tracking and management tools.	Integrate a robust budget management module that allows users to set, track, and manage their event budgets	Opportunity to help users stay within budget, reduce financial stress, and improve financial planning for events.

		effectively. Provide alerts for budget overruns.	
Problem - Vendor Selection	Users struggle to find reliable and suitable vendors for their events, leading to subpar services.	Implement a vendor rating and review system to help users make informed decisions. Offer a vendor directory with detailed profiles.	Opportunity to create a marketplace of trusted vendors, increase user trust, and potentially earn referral fees from vendors.
Problem - Marketing and Promotion	Event organizers face difficulties in promoting their events effectively and reaching their target audiences.	Integrate marketing and promotional tools, including email marketing, social media sharing, and analytics to track campaign effectiveness.	Opportunity to offer additional marketing services or partnerships with advertising platforms, generating additional revenue streams.
Problem - Data Security	Concerns about data security and privacy may deter users from sharing sensitive event information on the platform.	Implement robust data encryption, access controls, and compliance with data protection regulations. Educate users on security measures.	Opportunity to build trust with users, attract more data-sensitive clients, and maintain compliance with legal requirements.

This table provides an overview of the key issues, potential solutions, and opportunities associated with developing an event planner system. Addressing these problems and capitalizing on the opportunities can lead to a successful and sustainable platform

1.4 Project goal and objectives

Project Goal: The project aims to develop and launch a web-based event planner system that simplifies and enhances the event planning process for users, making it a one-stop solution for event organizers, vendors, and attendees.

Objectives:

1. User-Friendly Interface: Create an intuitive and user-friendly interface that ensures a positive user experience and encourages engagement with the platform.

2. Comprehensive Event Coordination: Develop tools and features for comprehensive event coordination, including vendor management, attendee communication, and scheduling automation, to streamline the planning process.

3. Vendor Selection: Provide a vendor directory with detailed profiles and a vendor rating and review system to help users make informed decisions when selecting vendors for their events.

4. Marketing and Promotion: Integrate marketing and promotional tools, including email marketing, social media sharing, and analytics, to empower users to effectively promote their events and reach their target audiences.

5. Data Security and Privacy: Ensure robust data encryption, access controls, and compliance with data protection regulations to protect user data and build trust among users.

6. Scalability: Build a scalable infrastructure, implement load balancing, and monitor performance continuously to accommodate a growing user base and maintain optimal platform performance.

7. Revenue Generation: Explore opportunities for generating revenue, such as offering premium features, partnerships with vendors, referral programs, and advertising services.

8. User Education and Support: Provide user education resources and excellent customer support to assist users in getting the most out of the platform and resolving any issues they encounter.

9. Expansion and Growth: Consider expanding the platform's offerings and potentially entering new markets or regions as the user base grows and the platform matures.

10. Feedback and Improvement: Continuously gather user feedback and data analytics to identify areas for improvement and refine the platform's features and services.

11. Compliance and Security Audits: Regularly conduct compliance and security audits to ensure the platform complies with relevant regulations and remains secure against emerging threats.

2 SECTION 2

2.1 Literature Review

Academic Journal Article:

Title: "Development of a Web-Based Decision Support System for Event Planning: A Case Study"

Authors: L. Y. Por, R. F. Boey, T. F. Ang, and C. S. Liew

Published in: WSEAS Transactions on Information Science & Applications

Volume: 5, Issue: 3

Pages: 211-218

Publication Date: March 2008

This academic journal article is the primary source for the information provided. It discusses the development of a web-based Decision Support System (DSS) for event planning, which can be relevant to the creation of a centralized web-based event planner in the context of Bangladesh's event planning industry.

The presented studies within the provided context emphasize the necessity for a centralized web-based event planner, In the event planning industry of Bangladesh. This industry exhibits significant growth potential, driven by increasing demand for various events and Bangladesh's diverse culture, making it an attractive event destination. Existing challenges include the lack of centralized information, limited understanding of Bangladeshi cultures in current web-based planners, and a dearth of interactivity. To address these issues, the research introduces Event Arch as a Bangladeshi web-based Decision Support System (DSS) event planner, integrating e-commerce functionalities. The system incorporates vendor and member modules, an administrator module, and utilizes a decision support algorithm to offer personalized recommendations while considering user preferences and budgets. Future enhancements may involve online payment integration, additional features, and mobile compatibility. The studies collectively underscore the importance of Event Arch in streamlining event preparations and enhancing user experiences in the Bangladeshi event planning industry, with the potential for broader applications in decision support systems.

[1] L. Y. Por, R. F. Boey, T. F. Ang, and C. S. Liew, "Development of a Web-Based Decision Support System for Event Planning: A Case Study," WSEAS Transactions on Information Science & Applications, vol. 5, no. 3, pp. 211-218, Mar. 2008.

3 SECTION 3

3.1 Product Description

Eventlify - Event Management System

Overview:

Eventlify is an ultimate event management solution, designed to simplify and elevate an event planning experience. Whether it's organizing a wedding, corporate conference, or any special occasion, Eventlify connects users with the right professionals while ensuring privacy, security, and efficiency throughout the entire process.

Features:

Intuitive Selection: Eventlify offers an intuitive platform that allows customers to easily browse and select from a carefully curated list of event planners and specialized vendors, including card designers, photographers, and catering services.

Confidential Communication: Our unique chat system guarantees secure and private communication between customers and service providers, with customer information, such as names, IDs, and emails, always remaining confidential.

Effortless Collaboration: Event planners and vendors can seamlessly accept or decline service requests. Once accepted, they work collaboratively with customers to plan every aspect of the event, ensuring a personalized and unforgettable experience.

Streamlined Transactions: Eventlify streamlines the payment process, allowing customers to submit event details and make payments through a secure form. This ensures convenience, efficiency, and trustworthiness in every transaction.

Payment Protection: Our dedicated administrators hold customer payments in escrow until the successful completion of the event. This safeguard ensures that funds are protected until both parties mutually agree to release them.

Transparent Pricing: Eventlify operates on a transparent fee structure, allowing users to fully understand the service fee, which is deducted as a percentage of the transaction amount. This commitment to transparency fosters trust and confidence.

Data Privacy: Protecting your data is our top priority. Eventlify employs advanced security measures and encryption protocols to maintain the utmost privacy of your personal information and event details.

Legal Compliance: We rigorously adhere to all relevant regulations governing payment processing, data privacy, and user agreements, ensuring that our platform operates within the bounds of the law.

3.2 System Context diagram

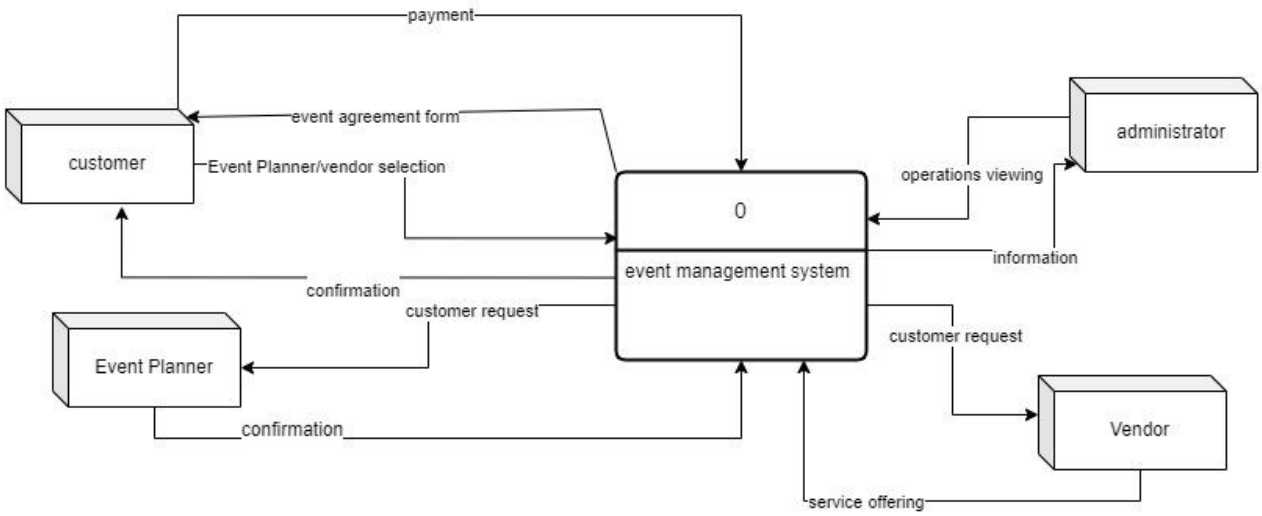

Figure 1: Eventlify system context diagram

3.3 Hardware detail

1. Web Servers:

- Multiple web servers needed to handle incoming HTTP requests.
- These servers have sufficient processing power, memory, and network bandwidth to handle concurrent user connections.

2. Database Servers:

- One database server to store and manage event data, user profiles, and other relevant information.
- The database servers have robust hardware specifications, including fast storage, ample memory, and powerful processors to handle database queries efficiently.

3. Storage:

- Utilize high-performance storage solutions to store static assets (images, videos, etc.) and user-uploaded content.
- Redundant storage configurations to ensure data integrity and minimize downtime.

4. Networking:

- A reliable and high-speed internet connection is essential to ensure smooth communication between web servers, database servers, and users.
- Implement security measures such as firewalls and intrusion detection systems to protect against threats.

5. Backup Systems:

- Implement automated backup systems to regularly back up critical data and configurations.
- Ensure backups are stored securely and can be easily restored in case of data loss or system failure.

6. Monitoring and Logging:
- Deploy monitoring hardware and software to track system performance, detect issues, and troubleshoot problems in real-time.
- Set up logging servers to collect and analyze system logs for security and performance monitoring.

7. Redundancy and High Availability:

- Implement redundancy for critical components (e.g., servers, databases) to ensure high availability and minimize downtime.
- Geographically distributed redundancy for disaster recovery.

3.4 Rich picture

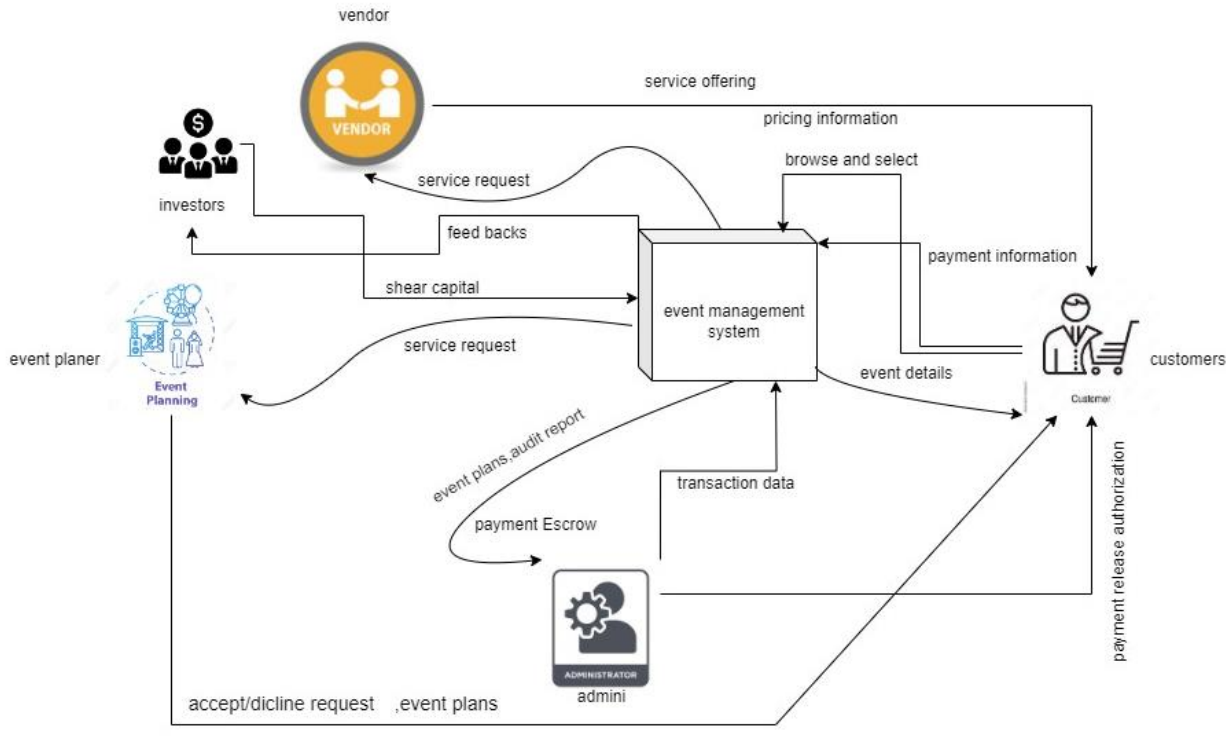

Figure 2: Eventlify Rich Picture

3.5 Key Technical Features of Software

User Authentication and Authorization

Robust user authentication to ensure secure access.

Role-based access control (RBAC) to manage permissions for different user roles (e.g., customer, event planner, administrator).

Database Management

Efficient database design to store and retrieve user data, event details, and transaction information.

Data encryption and security measures to protect sensitive user information.

Chat System

Real-time chat functionality using WebSocket or similar technologies for seamless communication between users.

Message storage and retrieval for reviewing past conversations.

Payment Integration

Integration with payment gateways (e.g., PayPal, Stripe) to facilitate secure and seamless transactions.

Compliance with Payment Card Industry Data Security Standard (PCI DSS) for payment data security.

Scalability

Ability to scale horizontally or vertically to handle a growing number of users and events.

Load balancing to distribute traffic evenly across servers.

Security

Robust security measures, including data encryption, to protect user data and prevent unauthorized access.

Regular security audits and updates to address vulnerabilities.

Data Backup and Recovery

Automated data backup procedures to prevent data loss in case of system failures.

A clear data recovery strategy to restore the system to a stable state.

Performance Optimization

Caching mechanisms to enhance system performance and reduce database queries.

Code optimization for efficient resource utilization.

Mobile Responsiveness

Support for mobile devices through responsive web design or dedicated mobile apps.

Cross-browser compatibility to ensure functionality across different web browsers.

APIs and Integrations

RESTful APIs or GraphQL for integrating with external services, such as mapping and geolocation services.

Webhooks for real-time notifications and updates.

Data Analytics and Reporting

Data analytics tools to provide insights into user behavior and system performance.

Customizable reporting features for users to track event-related metrics.

Data Privacy and Compliance

Compliance with data privacy regulations (e.g., GDPR, HIPAA) depending on the nature of data handled.

Implementation of data access controls and audit trails.

Monitoring and Logging

System monitoring tools to track performance, detect anomalies, and ensure uptime.

Comprehensive logging for debugging and auditing purposes.

4 SECTION 4

4.1 Information Gathering Methods

For gathering essential project information, we employed a combination of three information gathering methods:

4.1.1 Surveys and Questionnaires

We created an online survey form on Google Forms and invited the people and some of the stakeholders to respond to some questions regarding the Event Management System. The responses of each person will enable us to examine swiftly and simply what the people want. We were also able to gather specific information regarding their issues thanks to the survey.

Questionnaires:

1. General Information:

- Name:
- Email:

2. How often do you plan events?

- Rarely
- Occasionally
- Frequently

3. Which types of events do you usually plan? (Select all that apply)

- Weddings
- Corporate Events
- Parties and Celebrations
- Conferences and Seminars
- Other (Please specify):

4. How would you rate your experience using our event management system so far?

- Excellent
- Good
- Average
- Below Average
- Poor

5. What features of our event management system do you find most useful?

6. Are there any specific features you think are missing from our system?

7. How satisfied are you with the vendor and event manager selection process in our system?

- Very Satisfied
- Satisfied
- Neutral
- Unsatisfied
- Very Unsatisfied

8. How effective do you find the communication tools within the system for interacting with guests, vendors, and event managers?

- Very Effective
- Effective
- Neutral
- Ineffective
- Very Ineffective

9. Have you encountered any challenges or difficulties while using our system? If yes, please specify.

10. How likely are you to recommend our event management system to others?

- Very Likely
- Likely
- Neutral
- Unlikely
- Very Unlikely

11. Is there any additional feedback or suggestions you would like to provide to help us improve our event management system?

Thank you for participating in our survey. Your feedback is valuable to us!\

4.1.2 Survey Report

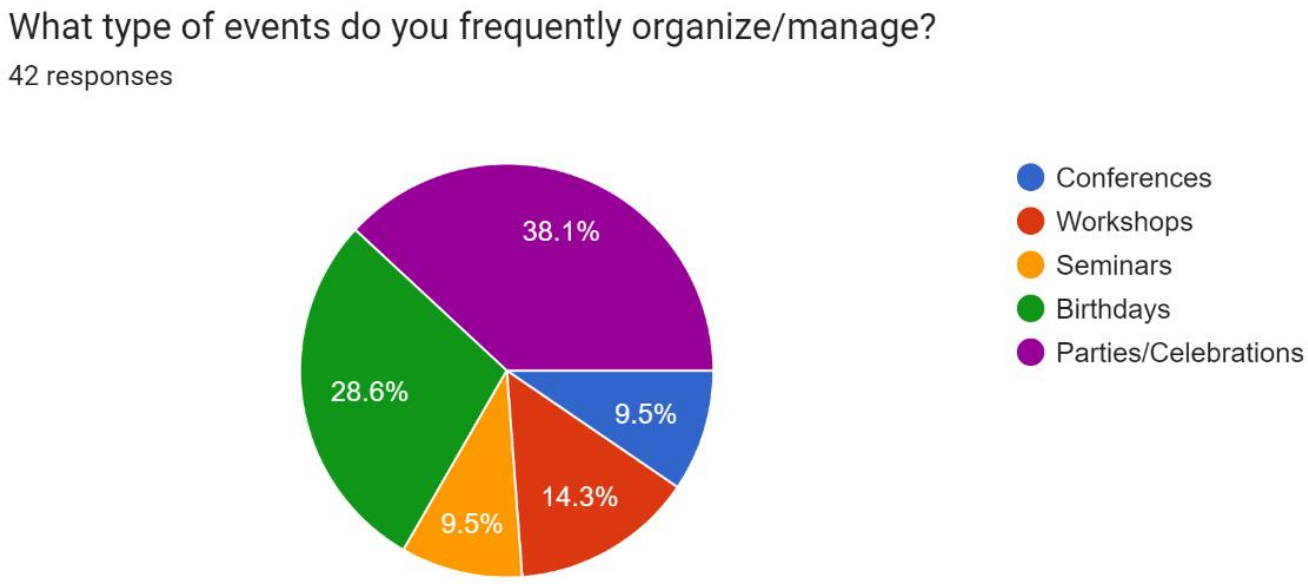

Figure 3: Survey response pie chart

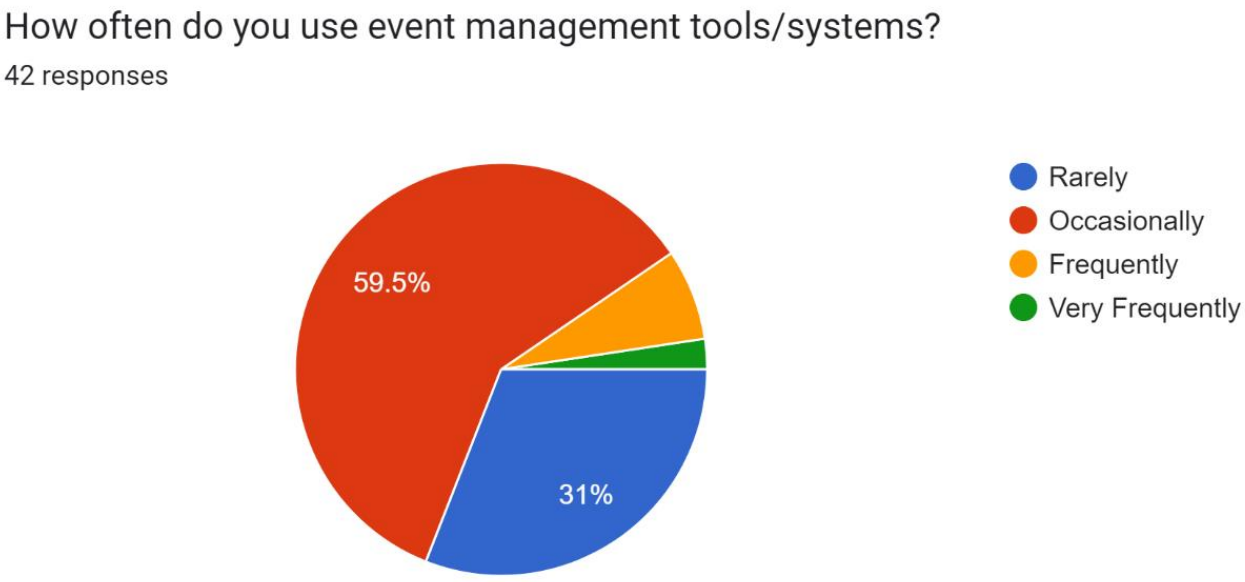

Figure 4: Survey response pie chart

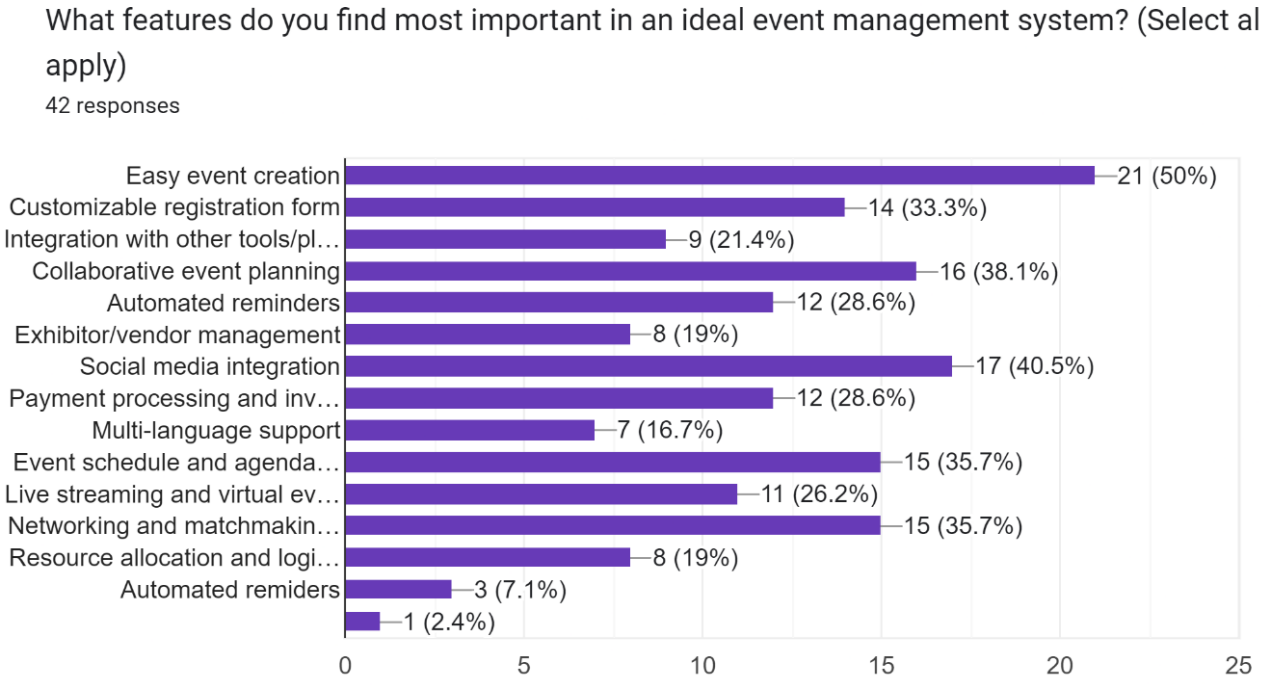

Figure 5: Survey response bar chart

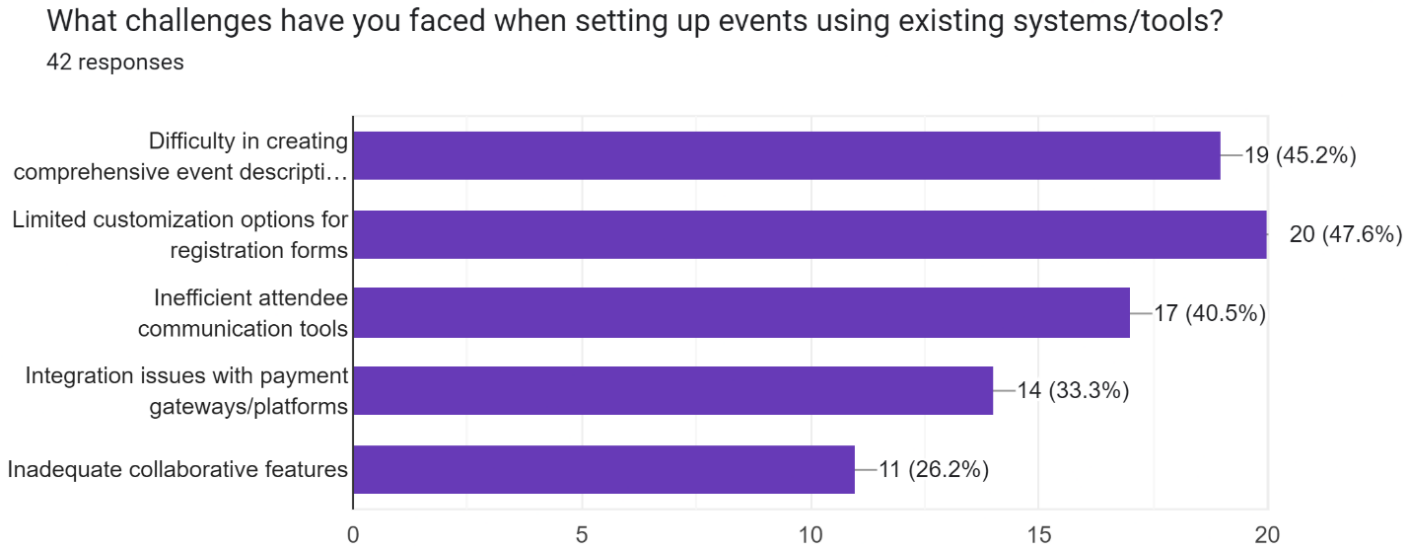

Figure 6: Survey response bar chart

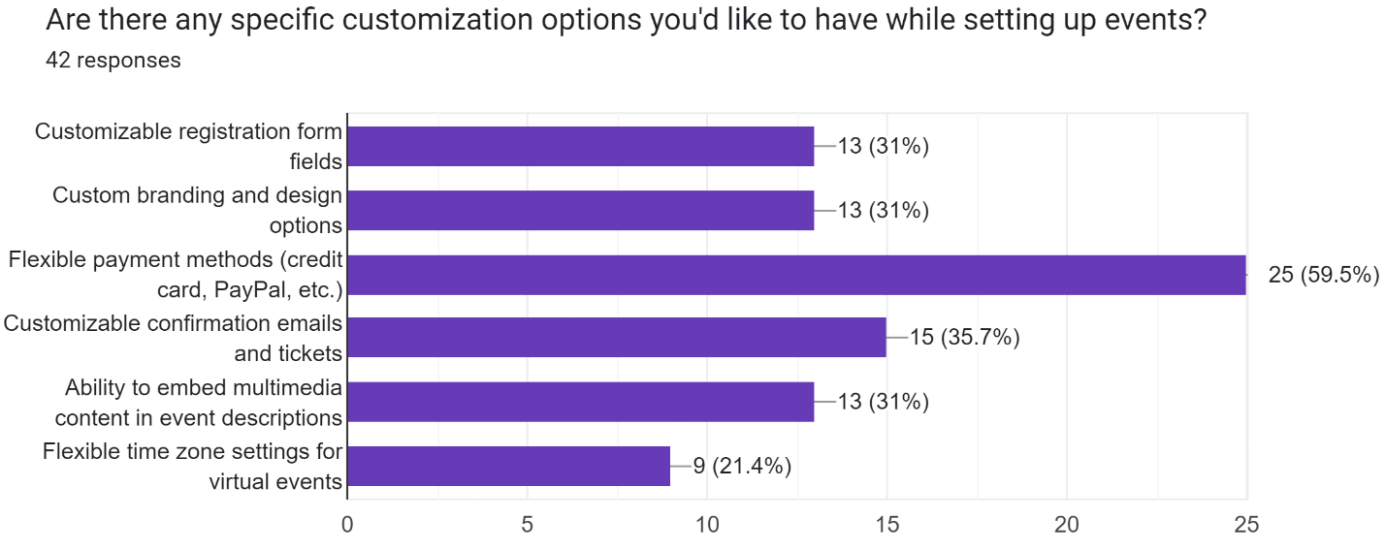

Figure 7: Survey response bar chart

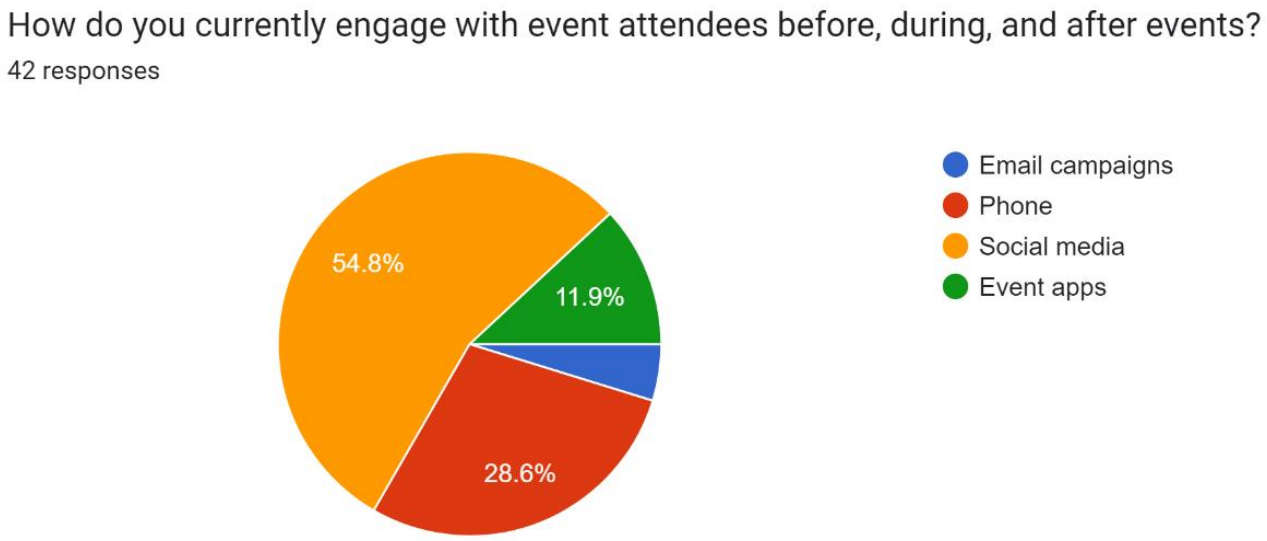

Figure 8: Survey response pie chart

4.1.3 Interview

We have decided to meet with some of our stakeholders to have a better understanding of them. We began our interview after explaining our app and how it will function. There was a combination of open-ended and closed-ended questions asked. We learned about their perspectives and insights into the challenge they experienced when shopping for sweets by asking open-ended questions. When it came to arranging the questions, the Pyramid method was adopted.

For Event Planners:

- Can you describe your role and experience as an event planner?
- What are the key challenges you face when organizing events?
- How do you currently find and select vendors for your events?
- Could you share a recent event planning experience? What were the main tasks and difficulties you encountered?
- How do you manage your event budgets and track expenses?
- What tools or software do you currently use for event planning, if any?
- Can you discuss any pain points you've encountered while communicating with vendors or collaborating with them?
- What features or functionalities do you wish existed in an event management system to make your job easier?
- How do you ensure a smooth communication flow with your clients, vendors, and attendees?

4.1.4 Competitor Analysis:

- Researched and analyzed existing event planning apps to identify their strengths, weaknesses, and unique features.
- Studied user reviews and feedback to understand user expectations and areas for improvement.

4.2 Use Case Diagram

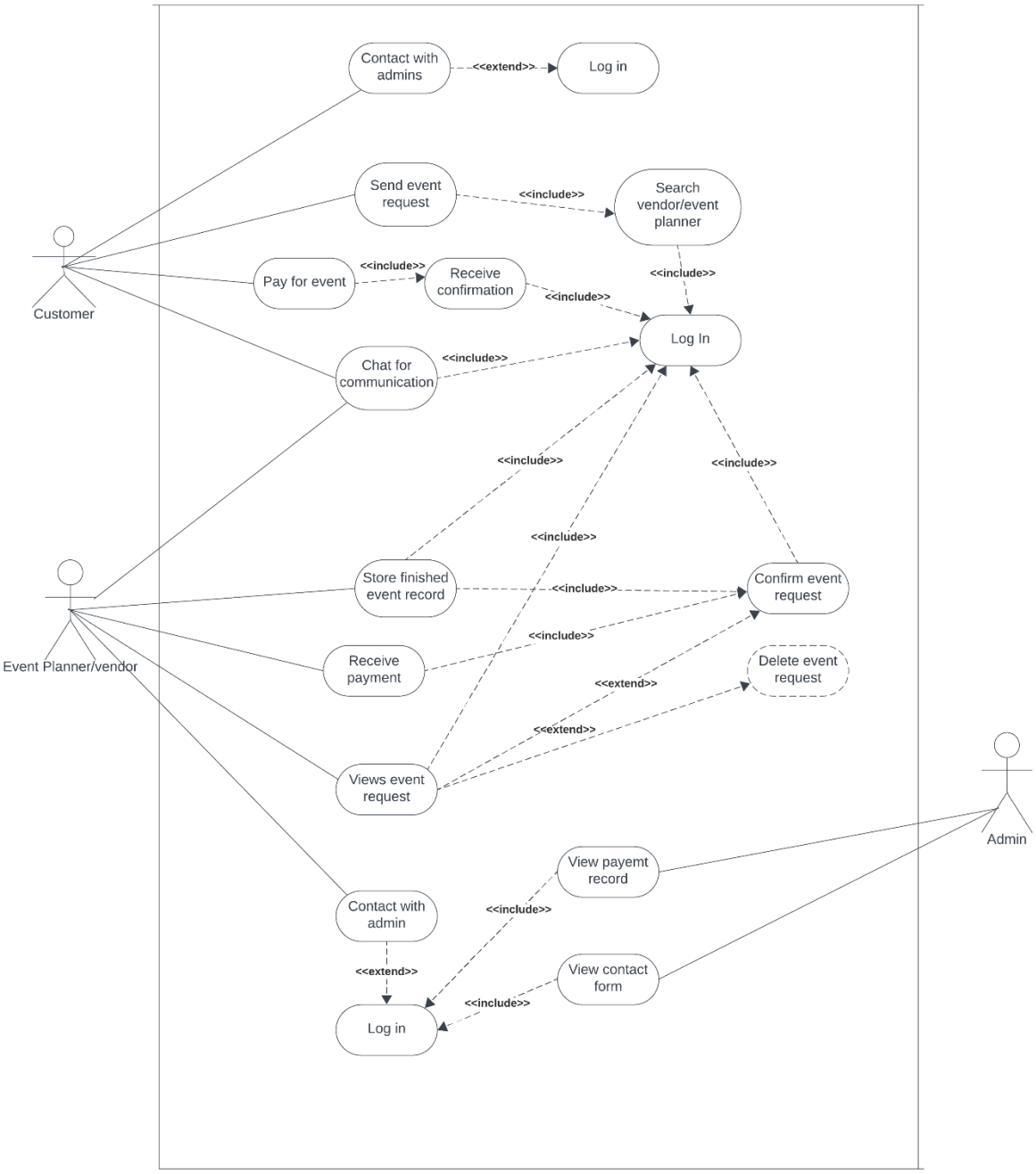

Figure 9: Eventlify Use-Case Diagram

4.3 Normal Scenario for 6 Use Cases

Use Case 1: Create Event

Title: Create Event

Actor: User

Stakeholders: User, EMS

Scenario:

- Step 1: The User logs in to EMS.
- Information Required for Steps: User's login credentials.
- Step 2: The User selects "Create New Event" from the dashboard.
- Information Required for Steps: None
- Step 3: The Eventify System presents a form for the User to input event details.
- Information Required for Steps: None
- Step 4: The User fills in event details, including: (Event name, Date, Location)
- Information Required for Steps: Event details.
- Step 5: The User adds budget, selects a theme, and specifies event type.
- Information Required for Steps: Budget, theme, event type.
- Step 6: The User saves the event.
- Information Required for Steps: None
- Step 7: The Eventify System generates an event ID and associates it with the created event.

Information Required for Steps: Event ID

Pre-Condition: The User is logged in to the Eventify system.

Post-Condition: A new event is successfully created with a unique event ID in the Eventify system.

Use Case 2: Manage Guest List

Title: Manage Guest List

Actor: User

Stakeholders: User, Eventify System, Guests

Scenario:

- Step 1: The User accesses the event dashboard.
- Information Required for Steps: None
- Step 2: The User selects "Guest List" from the menu.
- Information Required for Steps: None
- Step 3: The Eventify System displays the guest list management interface.
- Step 4: The User adds or imports guest names and contact information to the guest list.
- Information Required for Steps: Guest names, contact information.
- Step 5: The User sends invitations to the guests via email or SMS using the Eventify System.
- Information Required for Steps: None
- Step 6: The invited Guests receive the invitations and respond with their RSVP status.
- Step 7: The User receives RSVPs from the invited Guests via the Eventify System.
- Step 8: The User updates the guest list based on received RSVPs.

Information Required for Steps: Updated guest list.

Pre-Condition: The User has an active event in the Eventify system.

Post-Condition: The User successfully manages the guest list by adding or importing guest information, sending invitations, receiving RSVPs, and updating the guest list accordingly in the Eventify system.

Use Case 3: Manage Budget

Title: Budget Management

Actor: User

Stakeholders: User, Eventify System

Scenario:

- Step 1: The User navigates to the event dashboard.
- Information Required for Steps: None
- Step 2: The User selects "Budget Management" from the menu.
- Information Required for Steps: None
- Step 3: The Eventify System displays the budget management interface.
- Step 4: The User adds estimated expenses for the event, assigns them to relevant categories, and sets budget limits for each category.
- Information Required for Steps: Estimated expenses, categories, budget limits.
- Step 5: The User saves the budget details using the Eventify System.
- Step 6: The Eventify System calculates the totals for each category and provides an overview of the budget.
- Step 7: If expenses approach or exceed the set budget limits, the Eventify System sends alerts to the User.

Information Required for Steps: Budget limit alerts.

Pre-Condition: The User has an active event in the Eventify system.

Post-Condition: The User successfully manages the event budget by adding estimated expenses, assigning categories, setting budget limits, saving the details, and receiving alerts if expenses approach or exceed the budget limits using the Eventify system.

Use Case 4: Find Vendors

Title: Find Vendors

Actor: User

Stakeholders: User, Eventlify System

Scenario:

- Step 1: The User accesses the event dashboard.
- Information Required for Steps: None
- Step 2: The User selects "Vendor Directory" from the menu.
- Information Required for Steps: None
- Step 3: The Eventify System displays the vendor directory interface.
- Step 4: The User searches for vendors based on preferred services, location, or ratings.
- Information Required for Steps: Search criteria (services, location, ratings)
- Step 5: The Eventify System presents a list of vendors matching the search criteria.
- Step 6: The User views vendor profiles, including information about services offered, portfolio, reviews, and ratings.
- Information Required for Steps: Vendor profiles.
- Step 7: The User selects a vendor to learn more and potentially collaborate.
- Step 8: The User sends inquiries or messages to the selected vendor regarding services, availability, and other details.
- Information Required for Steps: Inquiry content.
- Step 9: The Eventify System notifies the vendor about the inquiry.
- Step 10: The selected vendor responds to the User's inquiry, providing relevant information and clarifications.
- Step 11: The User reviews the vendor's response and information.
- Step 12: The User can choose to continue communication with the vendor, request additional details, or make a booking.
- Step 13: The Eventify System facilitates ongoing communication between the User and the selected vendor.
- Step 14: The User receives notifications or email updates about any further responses or interactions.
- Step 15: The User can decide whether to finalize a booking or move forward with the chosen vendor based on the exchanged information.

Information Required for Steps: Vendor's response content.

Pre-Condition: The User has an active event in the Eventify system.

Post-Condition: The User successfully explores and interacts with vendors, sends inquiries, and receives responses using the Eventify system.

Use Case 5: Communication with Guests

Title: Communication with Guests

Actor: User

Stakeholders: User, Eventify System, Guests

Scenario:

- Step 1: The User navigates to the event dashboard.
- Information Required for Steps: None
- Step 2: The User selects "Communication" from the menu.
- Information Required for Steps: None
- Step 3: The Eventify System displays the communication interface.
- Step 4: The User composes a message, notification, or update intended for the event guests.
- Information Required for Steps: Message content.
- Step 5: The User specifies the recipients of the communication, selecting from the list of event guests.
- Information Required for Steps: Recipient list.
- Step 6: The User can preview the message and make any necessary edits.
- Step 7: The User sends the communication by clicking the "Send" button.
- Step 8: The Eventify System processes the communication and sends it to the specified recipients.
- Step 9: The event guests receive messages, notifications, or updates through their preferred communication channels (email, SMS, etc.).
- Step 10: Event guests can access the received messages and view the communicated information.
- Step 11: The User can track the delivery status of the sent communications within the Eventify System.

- Step 12: The User can choose to send follow-up messages or additional communications as needed.

Pre-Condition: The User has an active event in the Eventify system and access to the event dashboard.

Post-Condition: The User successfully communicates important information, notifications, or updates to guests using the Eventify system.

Use Case 6: Automation and Reminders

Title: Automation and Reminders

Actor: User

Stakeholders: User, Eventify System

Scenario:

- Step 1: The User navigates to the event dashboard.
- Information Required for Steps: None
- Step 2: The User selects "Automation and Reminders" from the menu.
- Information Required for Steps: None
- Step 3: The Eventify System displays the automation and reminders interface.
- Step 4: The User sets up automated reminders for specific tasks, deadlines, or milestones associated with the event.
- Information Required for Steps: Reminder details (task, deadline, milestone)
- Step 5: The User specifies the timing of each reminder, including the date and time when the reminder should be sent.
- Information Required for Steps: Reminder timing.
- Step 6: The User adds additional details or notes to the reminder, providing context or instructions.
- Step 7: The User confirms the reminder settings and saves the automation configuration.
- Step 8: The Eventify System processes the configured reminders and schedules them for sending at the specified times.

- Step 9: At the scheduled times, the Eventify System automatically sends reminders to the User via the chosen communication channel (email, SMS, etc.).
- Step 10: The User receives the automated reminders, which include the specified details and notes.
- Step 11: The User can mark tasks as completed, acknowledge deadlines, or track milestones based on the received reminders.
- Step 12: The User can review the history of sent reminders and their impact on task completion and event progress.

Pre-Condition: The User has an active event in the Eventify system and access to the event dashboard.

Post-Condition: The User successfully sets up automated reminders for tasks, deadlines, and milestones using the Eventify system, and the system sends reminders at specified times.

4.4 Alternative Scenarios for 6 Use Cases

Use Case 1: Create Event

Title: Create Event

Actor: User

Stakeholders: User, Eventlify

Alternate Scenario: Incomplete Event Details

- Step 1: The User logs in to Eventify.
- Information Required for Steps: User's login credentials.

- Step 2: The User selects "Create New Event" from the dashboard.
- Information Required for Steps: None

- Step 3: The Eventify System presents a form for the User to input event details.
- Information Required for Steps: None

- Step 4: The User provides incomplete event details (missing date and location).
- Information Required for Steps: Incomplete event details.

- Step 5: The System displays an error message and prompts the user to complete all required fields.
- Information Required for Steps: Error message.

- Step 6: The User completes the missing information and proceeds with creating the event.
- Information Required for Steps: Completed event details.

Pre-Condition: The User is logged in to the Eventify system.

Post-Condition: The User successfully completes the event creation process with all required details.

Use Case 2: Manage Guest List

Title: Manage Guest List

Actor: User

Stakeholders: User, Eventlify

Alternate Scenario: Technical Issues with Sending Invitations

- Step 1: The User accesses the event dashboard.
- Information Required for Steps: None

- Step 2: The User selects "Guest List" from the menu.
- Information Required for Steps: None

- Step 3: The Eventify System displays the guest list management interface.
- Information Required for Steps: None

- Step 4: The User experiences technical issues while sending invitations.
- Information Required for Steps: Technical issues.

- Step 5: The System displays an error message and provides guidance on troubleshooting.
- Information Required for Steps: Error message, troubleshooting guidance.

- Step 6: The User attempts to resend invitations or manually updates RSVPs.
- Information Required for Steps: Resent invitations or manual RSVP updates.

Pre-Condition: The User has access to an active event in the Eventify system.

Post-Condition: The User successfully manages the event guest list by adding or importing guest information, sending invitations, receiving RSVPs, and troubleshooting technical issues related to invitations if necessary.

Use Case 3: Manage Budget

Title: Budget Management

Actor: User

Stakeholders: User, Eventlify

Alternate Scenario: Technical Issue with Entering Expense Details

- Step 1: The User navigates to the event dashboard.
- Information Required for Steps: None

- Step 2: The User selects "Budget Management" from the menu.
- Information Required for Steps: None

- Step 3: The Eventify System displays the budget management interface.
- Information Required for Steps: None

- Step 4: The User encounters a technical issue while entering expense details.
- Information Required for Steps: Technical issue.

- Step 5: The System displays an error message and suggests refreshing the page.
- Information Required for Steps: Error message, troubleshooting suggestion.

- Step 6: The User reloads the page and re-enters the expense information.
- Information Required for Steps: Re-entered expense details.

Pre-Condition: The User has an active event in the Eventify system.

Post-Condition: The User successfully manages the event budget by adding estimated expenses, assigning categories, setting budget limits, saving the details, receiving an overview of the budget, and getting alerted if expenses approach or exceed the budget limits using the Eventify system. In case of technical issues, the User troubleshoots by refreshing the page and re-enters the expense details.

Use Case 4: Find Vendors

Title: Find Vendors

Actor: User

Stakeholders: User, Eventlify

Alternative Scenario: Slow Loading of Vendor Profiles

Step 1: The User accesses the event dashboard.

Information Required for Steps: None

Step 2: The User selects "Vendor Directory" from the menu.

Information Required for Steps: None

Step 3: The User encounters slow loading of vendor profiles due to network issues.

Step 4: The Eventify System displays a loading indicator and informs the user to check their internet connection.

Step 5: The User waits for the profiles to load or decides to try again later.

Pre-Condition: The User intends to access vendor profiles from the Vendor Directory on the Eventify system.

Post-Condition: The User either successfully views the loaded vendor profiles or decides to retry accessing them later, depending on the network conditions.

Use Case 5: Communication with Guests

Title: Communication with Guests

Actor: User

Stakeholders: User, Eventlify System, Guests

Alternative Scenario: Issue with Sending Messages

Step 1: The User navigates to the event dashboard.

Information Required for Steps: None

Step 2: The User selects "Communication" from the menu.

Information Required for Steps: None

Step 3: The User encounters an issue while sending messages.

Step 4: The Eventify System displays an error message and suggests checking the recipients' contact information.

Step 5: The User revises the recipients or message content to address the issue.

Step 6: The User resends the communication to the corrected recipients.

Pre-Condition: The User intends to send messages from the Communication feature on the Eventify system.

Post-Condition: The User resolves the issue with sending messages by revising the recipients or message content and successfully resends the communication using the Eventify system.

Use Case 6: Automation and Reminders

Title: Automation and Reminders

Actor: User

Stakeholders: User, Eventify System

Alternative Scenario: Difficulty Configuring Automated Reminders

Step 1: The User accesses the event dashboard.

Information Required for Steps: None

Step 2: The User selects "Automation and Reminders" from the menu.

Information Required for Steps: None

Step 3: The User has trouble configuring automated reminders.

Step 4: The Eventify System displays an error message and provides troubleshooting tips to help the User address the configuration issue.

Pre-Condition: The User intends to set up automated reminders using the Automation and Reminders feature on the Eventify system.

Post-Condition: The User encounters difficulty configuring automated reminders but receives guidance and troubleshooting tips from the Eventify system to address the issue.

These alternative scenarios highlight potential challenges users may face while interacting with the Eventify app and the corresponding steps to resolve the issues. Addressing these scenarios during the app's design and development phase will help ensure a smoother and more reliable user experience.

4.5 Functional Requirements

- User Registration and Login: Users should be able to create accounts and log in securely.
- Event Creation: Users can create and customize events with details, themes, and types.
- Budget Management: Users can set budgets, track expenses, and receive overspending alerts.
- Vendor Selection: Users can search for vendors, view reviews, and make vendor selections.
- Guest List Management: Users can add, import, and manage guest lists, and send invitations.
- Communication: Users can send messages, notifications, and updates to guests and stakeholders.

- Automation: The system automates reminders, notifications, and task scheduling.
- Inspiration Gallery: Users can browse and select event themes, ideas, and inspirations.
- Reports and Analytics: Users can generate reports and analyze event-related data.

4.6 Non-Functional Requirements

- Performance: The app should handle a large number of users and events without slowdowns.
- Security: User data, including personal and financial information, must be securely encrypted.
- Usability: The app should have an intuitive and user-friendly interface for users of all levels.
- Reliability: The app should have minimal downtime and handle errors gracefully.
- Scalability: The app's architecture should allow for easy scaling as user numbers grow.

These requirements, gathered through various methods, will guide the development of Eventlify, ensuring a robust and user-centered event management web app.

5 SECTION 5

5.1 Entity Relationship Diagram

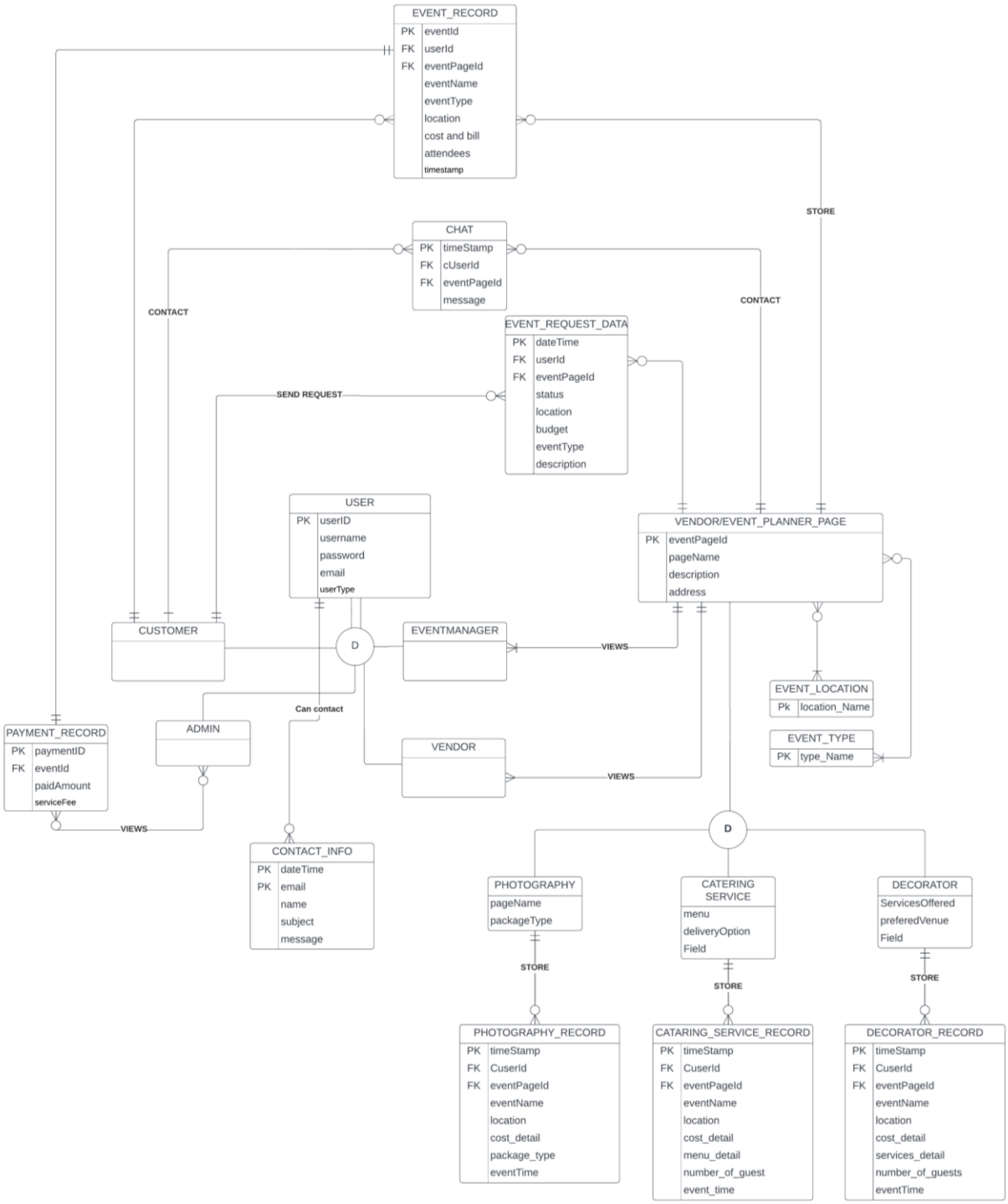

Figure 10: Entity Relationship Diagram of Eventlify

5.2 Logical Data Flow diagram

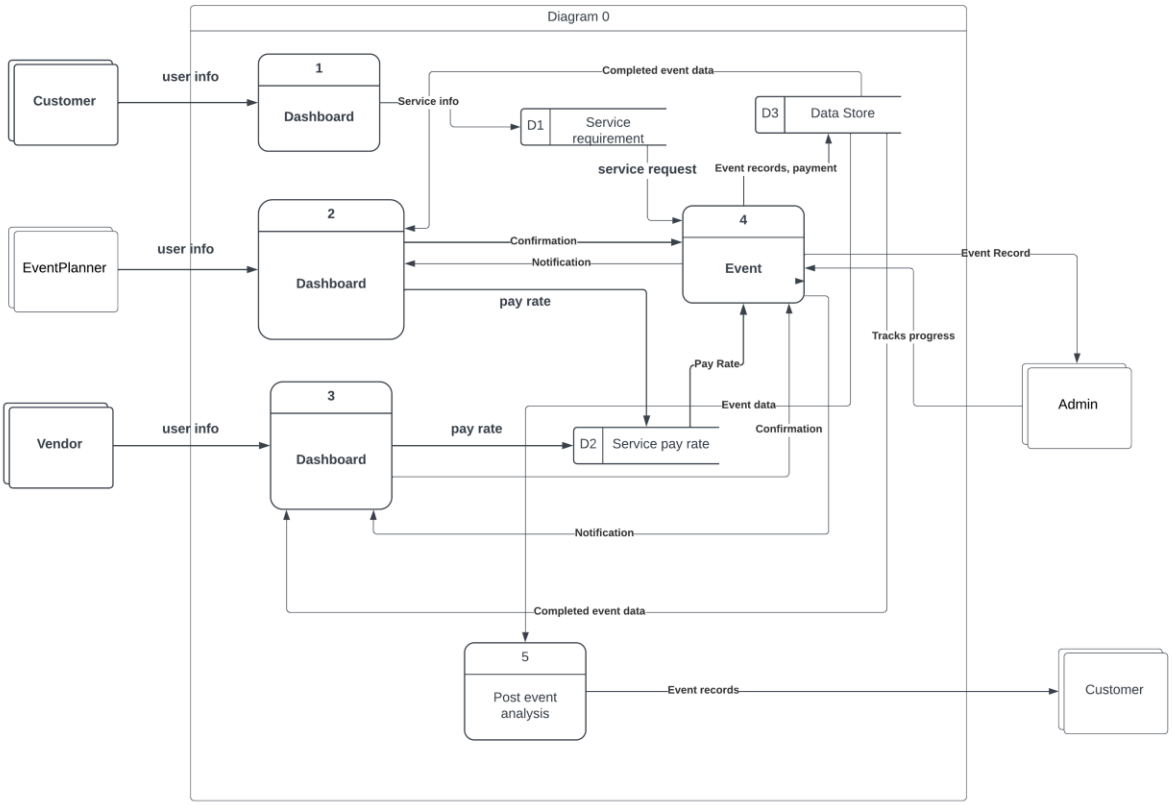

Figure 11: Logical Data Flow Diagram(0) of Eventlify

5.3 Activity diagram

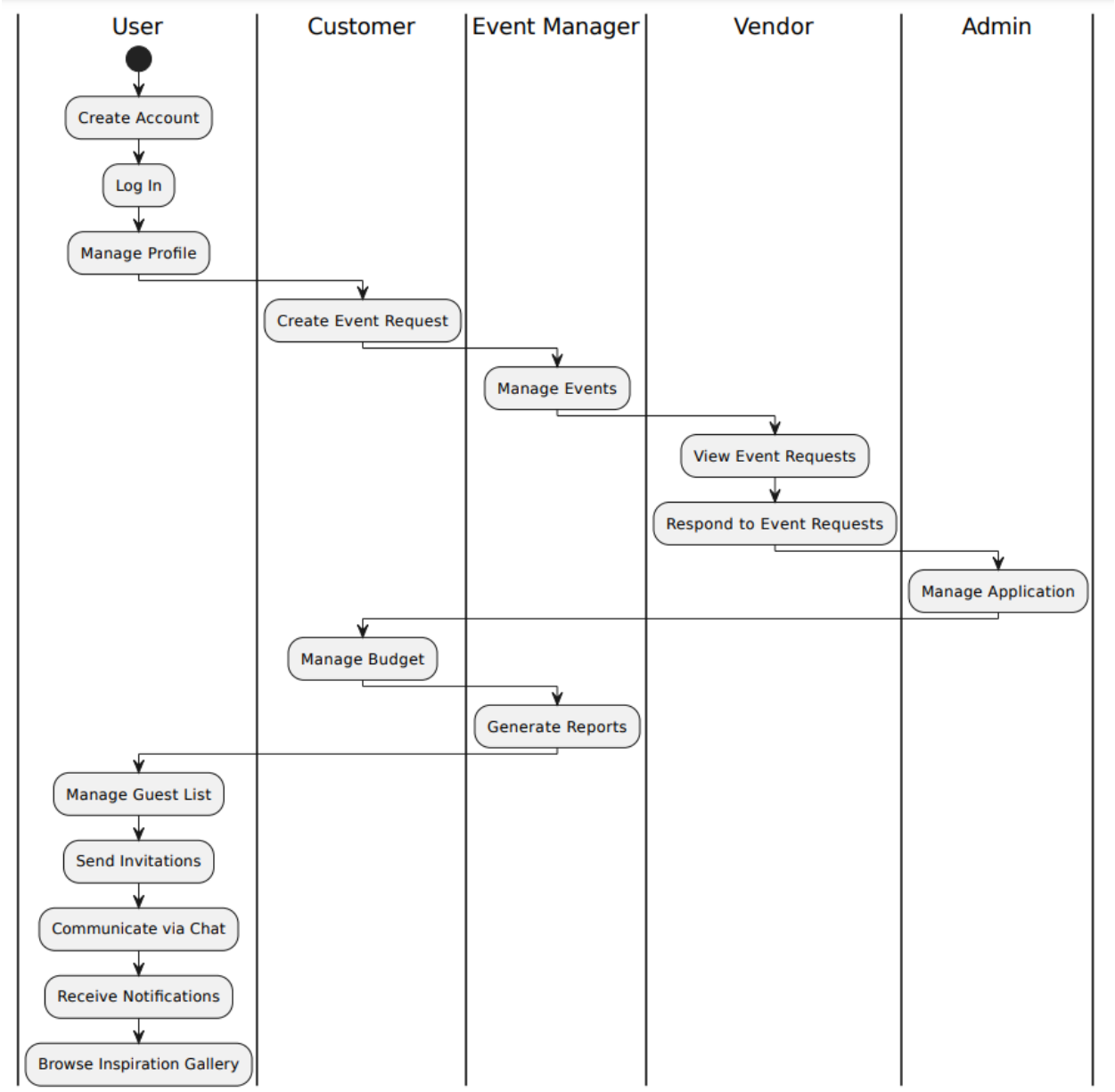

Figure 12: Activity diagram of Eventlify

5.4 Sequence Diagram

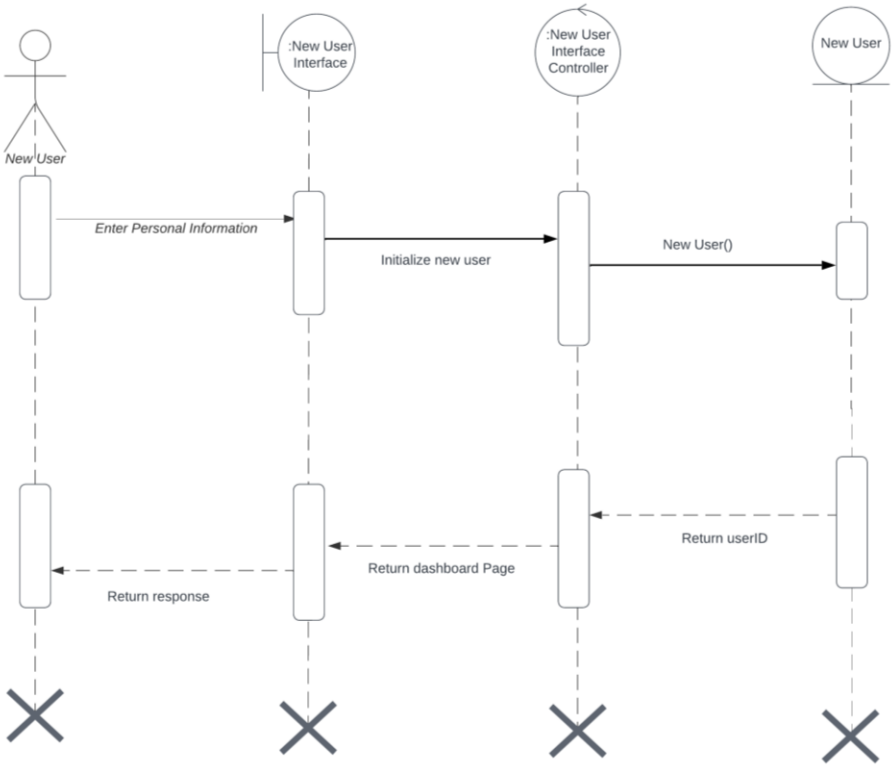

Figure 13: Sequence diagram of Eventlify log in system

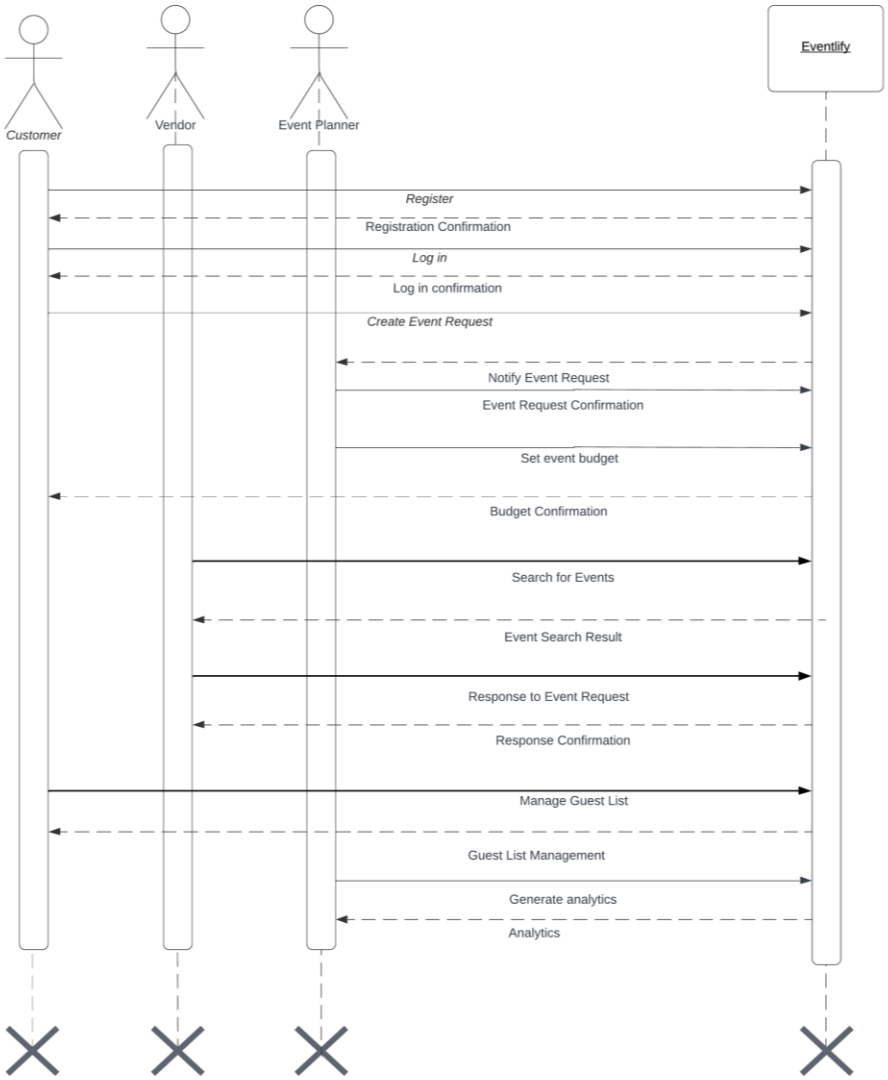

Figure 14: Sequence diagram of Eventlify

5.5 Communication diagrams

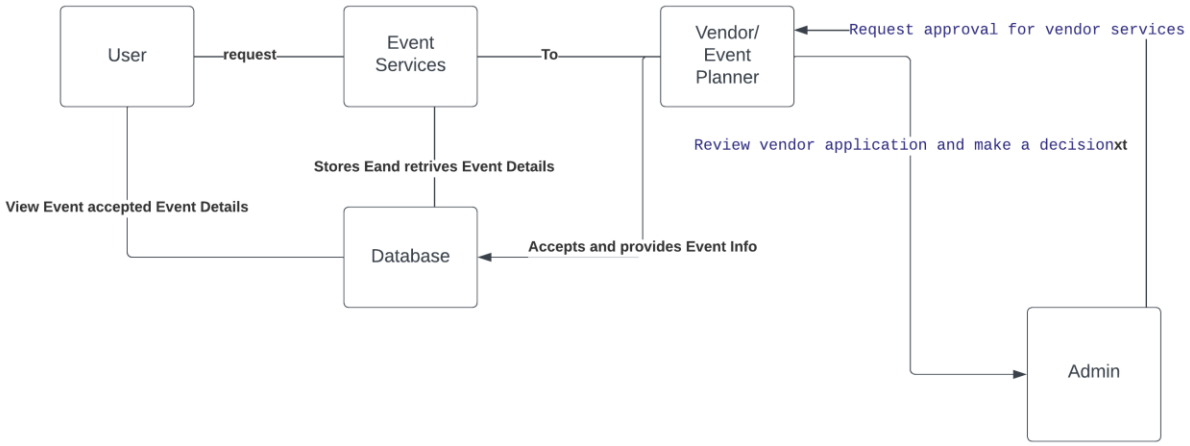

Figure 15: Communication diagram of Eventlify

5.6 Class diagram

5.7 State chart diagram