EVENTIFY

PROJECT SYNOPSIS

FOR MAJOR PROJECT

BACHELOR OF TECHNOLOGY

COMPUTER SCIENCE AND ENGINEERING

SUBMITTED BY

SHASHANK	SUMEHAR GILL	TARANJIT KAUR
URN – 2104185	URN – 2104200	URN – 2104205
CRN -2115135	CRN - 2115143	CRN -2115148

GURU NANAK DEV ENGINERING COLLEGE,

LUDHIANA

TABLE OF CONTENT

INTRODUCTION

The modern event management landscape demands efficient, dynamic, and user-friendly solutions that can cater to both organizers and attendees. The proposed web application is designed to meet these needs by providing an all-encompassing platform for event organizing and bookings. This platform streamlines the process of planning, managing, and executing events, making it easier for organizers to communicate with attendees, manage registrations, and handle payments securely.

One of the primary objectives of this application is to facilitate real-time communication and updates between event organizers and attendees. By integrating features such as instant messaging, live notifications, and real-time updates, the platform ensures that all participants are kept informed and engaged throughout the event lifecycle. This functionality is crucial for maintaining a seamless flow of information, particularly in dynamic and large-scale events.

In addition to communication, the application focuses on providing a seamless user experience in terms of registration and payment processing. By integrating secure payment gateways like Stripe or PayPal, the platform ensures that transactions are handled efficiently and securely. This feature is designed to enhance user trust and satisfaction, making the registration process straightforward and hassle-free.

Furthermore, the application offers robust analytics and reporting tools, enabling event organizers to measure and analyze the success of their events. These insights are vital for making data-driven decisions and improving future events. Additionally, the platform's social networking features allow attendees to connect and interact, fostering community and engagement. The use of a modern technology stack, including React.js or Angular for the front-end and Node.js with Express.js for the back-end, ensures that the application is both scalable and reliable, capable of handling events of any size with ease.

RATIONALE

The event management industry has experienced significant growth in recent years, driven by the increasing demand for well-organized and engaging events, ranging from corporate conferences to social gatherings like weddings. However, the traditional methods of event planning and management often involve fragmented processes, time-consuming manual tasks, and a lack of cohesive communication between event organizers and attendees.

In this context, there is a clear need for a digital solution that can centralize and streamline the event management process. The proposed web application addresses this need by providing a comprehensive platform that integrates key functionalities such as real-time communication, seamless registration, secure payment processing, and advanced analytics. By offering these features within a single, user-friendly platform, the application aims to reduce the complexity of event management and enhance the overall experience for both organizers and attendees.

Moreover, the rise of digital transformation has made it imperative for the event management industry to adopt modern technologies that can improve efficiency and scalability. This project leverages cutting-edge technologies, including React.js or Angular for the front-end, Node.js with Express.js for the back-end, and cloud deployment via AWS, ensuring that the application is not only powerful but also adaptable to the evolving needs of the industry.

In summary, this project is grounded in the necessity to modernize event management practices by providing a streamlined, technology-driven solution. By addressing the common pain points faced by event organizers and attendees, this web application has the potential to significantly improve the planning, execution, and success of events across various sectors.

OBJECTIVES

The objectives of this Eventify System are:

1. To facilitate real-time communication and updates between event organizers and attendees.
2. To enable seamless user registration and secure payment integration for events.
3. To provide detailed analytics and reporting to measure event success and to enhance attendee networking through dedicated social features.

LITERATURE REVIEW

1. Digital Transformation in Wedding Planning: The wedding planning industry has significantly embraced digital tools to enhance convenience and efficiency. Wedding planning apps have become essential for organizing weddings by centralizing various services and resources on one place. According to a 2023 study by The Knot, approximately 80% of couples used wedding planning apps or websites, highlighting the increasing reliance on technology in the industry. This shift is driven by the need for convenience, effective budget management, and access to a broad network of vendors.
2. Examples and Features of Wedding Planning Apps: Leading wedding planning apps, such as The Knot and WeddingWire, offer customizable checklists, budget trackers, and vendor marketplaces to streamline the planning process. These platforms provided tools and resources, including reviews and recommendations, allowing couples to plan(customize) their wedding that fulfil their specific needs. For example, Zola integrates vendor management and RSVP tracking with automated systems for stressless planning and real-time updates.
3. Customization, Automation, and User Satisfaction: Customizable packages are important for user satisfaction. A 2022 study in the Journal off Event Management emphasized that importance of these features. Automated booking systems and real-time updates reduces human error, restlessness and enhance vendor management efficiency. Apps like Zola provided real-time vendor communication and RSVP management, exemplifying these advancements. Research by the Interaction Design Foundation highlights that intuitive and responsive design is key to boosting user engagement, as seen in apps like Joy, which prioritize user-friendly interfaces.

FEASIBILITY STUDY

Technical Feasibility:

1. Technology Stack:
    - Use of React.js or Angular for front-end development ensures a dynamic and responsive user interface.
    - Node.js with Express.js provides a scalable and efficient server-side environment.
    - MongoDB and PostgreSQL offer flexible and robust data management solutions.
2. Integration:
    - Seamless integration of payment gateways like Stripe or PayPal for secure transactions.
    - OAuth for secure and easy user authentication via social media accounts.
3. Deployment:
    - Docker ensures consistent development and production environments.
    - AWS provides scalable and reliable cloud infrastructure, supporting global reach and availability.
4. Support and Maintenance:
    - The use of widely-adopted, open-source technologies ensures strong community support and ease of maintenance.

Operational Feasibility:

1. User-Centric Design:
    - The platform's user interface is designed to be intuitive, reducing the learning curve for event organizers and attendees.
    - Features like real-time communication and automated updates streamline event management operations.

2. Workflow Efficiency:
    - End-to-end management from event creation to post-event analytics, simplifying operations for organizers.
    - Integration of analytics tools provides actionable insights for improving event outcomes.
3. Scalability:
    - The application is designed to handle varying event sizes, from small gatherings to large-scale conferences.
    - The cloud-based architecture ensures that the platform can scale up or down based on demand.
4. Revenue Generation:
    - The application can introduce various revenue streams, such as subscription fees, transaction fees, or premium features for event organizers.
    - Potential for partnerships with vendors or sponsors for additional income.
5. Return on Investment (ROI):
    - By improving efficiency and reducing manual effort, the platform offers long-term cost savings for event organizers.
    - The scalable model allows for expansion and potential profitability as the user base grows.

METHODOLOGY/ PLANNING OF WORK

The process of building EventHub with MERN stack follows certain steps. Here is a detailed step by step guide for the technologies and techniques that are used during development:

Requirement Analysis: It defines the features and functionalities of the web app by gathering the basic requirements through stakeholder interviews and surveys. Then prepares a document for the functional and non-functional requirements.

System Design: Create a detailed design plan for the app , including wireframes, system architecture, and technology to be used.

Development: Building the web app that is based on the design, by implementing the front-end and back-end components, and integrating the vendor services.

Testing: Ensures that the application functions correctly and meets the requirements through unit, integration, system, and user acceptance testing.

Deployment: Launching the web app to the production environment and verifying its functionality.

Maintenance and Support: It ensures regular updation of the data, clears bugs or errors regular basis

Documentation: Develop comprehensive user manuals and technical guides too support application use and future development.

FACILITIES REQUIRED

Development Tools:

1. Hardware: Development machines (Laptops/Desktops), mobile devices for testing
2. Software:
    a. IDEs: Visual Code,
    b. Version Control: Git and GitHub
    c. Frameworks/Libraries: Node.js, Express.js, React.js (MERN Stack)

Integration Tools:

- APIs: Payment gateway APIs (e.g., Stripe, PayPal), Google API for login, Twilio
- Development Platforms: Thunder Client.

These facilities will ensure the smooth development, robust integration, thorough testing, and reliable deployment for the WedGlam project.

EXPECTED OUTCOMES

The web application is expected to significantly enhance event management by streamlining coordination with real-time communication, seamless registration, and automated updates, leading to improved efficiency for organizers. Attendees will experience a user-friendly interface with simplified registration and payment processes, along with real-time notifications and social networking features, boosting engagement and satisfaction. Comprehensive analytics and reporting tools will provide organizers with actionable insights to measure success and refine future events. The platform's scalability ensures it can handle events of various sizes and types, while secure payment processing and reliable cloud deployment ensure data protection and operational consistency. Additionally, potential revenue streams from subscriptions and transaction fees offer economic benefits, making the application a valuable solution for modernizing event management practices.

REFERENCES

[1] The Importance of Web Application Architecture: Magnus Andersson

[2] A Systematic Literature Review of the Design Thinking Approach for User Interface Design: Fardan Zamakhsyari, Agung Fatwanto

[3] Wedding Planner: Poojan Patel, Jishnu Nambiar, Shubham Agarwal and Prof. Neha Kudu