**EVENT PLANNING AND RSVP**

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**1.1 Background of the Study**

In a world where gatherings, celebrations, and corporate functions play an integral role in our lives, the art of event planning has evolved into a meticulous science. The success of any event, be it a wedding, a business conference, a milestone birthday celebration, or a charity fundraiser, hinges not only on the grandeur of the occasion but also on the precision with which it is organized. At the heart of this precision lies the unassuming yet indispensable element of RSVP, derived from the French phrase "Répondez s'il vous plaît," which translates to "please respond.". (Pilato, 2022)

An event may be thought of as a collection of events to which some visitors or participants are invited for a set period of time. Cultural festivities, business events such as conferences and product launches and marketing, wedding ceremonies, college activities, and so on are all examples of events. Event planning and RSVP systems serve as pivotal tools in the orchestration of successful events. They can be envisioned as a comprehensive platform that empowers event administrators with the means to efficiently manage all aspects of an event. This includes tasks such as setting event schedules, choosing venues, coordinating logistics, and overseeing budget allocation. Additionally, these systems offer a gateway for participants, granting them access to event details, enabling them to confirm their attendance (RSVP), and providing a channel for communication with organizers. The synergy between event planning and RSVP systems streamlines the entire event management process, ensuring that organizers can deliver memorable experiences while attendees can engage seamlessly. Ethically managing an event includes budget identification, cost analysis, and post-event analysis and feedback. Mohana et al. (2022)

The proposed project seeks to create a versatile event management system that streamlines the entire process of event organization, invitation management, and RSVP tracking. This comprehensive system is designed to adapt to a wide range of event types, sizes, and complexities, offering event planners a user-friendly platform to efficiently manage tasks such as venue selection, logistics coordination, budget management, and program design. It simplifies invitation management by enabling the creation and distribution of invitations through various channels while providing tools for guest list management. Additionally, it facilitates RSVP management for both organizers and attendees, ensuring seamless communication and logistical planning. Ultimately, this project aims to empower event organizers with a flexible and efficient solution that enhances event planning and attendee experiences in today's dynamic digital landscape.

**1.2 Statement of the Problem**

In the realm of event planning and RSVP, a series of challenges and inefficiencies persist, necessitating innovative solutions to address them. Event organizers encounter issues ranging from time-consuming administrative tasks to inefficient RSVP tracking, which impact the overall success and experience of events. These challenges underscore the need for a dedicated system that streamlines event organization, enhances invitation management, and simplifies RSVP tracking. Key problems include the labor-intensive nature of traditional event planning, the complexity of managing diverse guest lists, the difficulty in communicating event details effectively, and the limited availability of versatile tools capable of catering to a wide range of event types and sizes. Additionally, the evolving digital landscape requires adaptable solutions to meet the demands of both event organizers and attendees. Addressing these issues is pivotal for creating more efficient, enjoyable, and memorable events in a modern context.

**1.3 Aim and Objectives of the Study**

The aim is to develop a mobile-based event planning and RSVP to simplify the process of organizing events, sending invitations, and managing RSVPs.

**Objectives**

The objectives of this research work are as follows:

1. Data set used on the application will be generated upon registration on the mobile app
2. Unit and integration testing will be performed to validate the design's effectiveness and efficiency, as well as to guarantee that the functionalities are error-free.
3. Flutter will be employed in building the user interface and ensuring user experience, the APIs will be written in pure Dart, not forgetting the open-source relational database; Firebase which will be employed as the database technology.

**2.1 Literature Review**

Article Title: Evecurate – A Smart Event Management App Using Flutter and Firebase

Authors: Dr R Juliana, Naveen Kumar VG, Richard G, Shivadarshini P. (2020)

**Summary of the work**

This project focuses on transforming traditional event management processes in colleges and universities by introducing a mobile application called "Evecurate." The app streamlines various aspects of event planning, budgeting, communication, and audience engagement. It utilizes QR technology for efficient check-ins and audience interaction, such as event reviews and polls. Overall, "Evecurate" aims to replace cumbersome traditional event management methods with a more efficient and modernized system.

**Methodology**

The "Evecurate" mobile application went thorough requirements analysis, gathering input from event organizers and stakeholders. We then selected the appropriate technologies, opting for a Hybrid Mobile Application using the Flutter SDK, while integrating QR code and instant messaging technology. The design and prototyping phase focused on creating an intuitive user interface and testing the application's core functionalities. This methodology ensures the efficient development of "Evecurate," transforming conventional event management into a smart and user-friendly system.

**Recommendation**

The researchers recommended integrating features like live chatting, video conferencing, live map navigation, and face recognition into the "Evecurate" mobile application to enhance its functionality. These enhancements will not only set "Evecurate" apart from competitors but also foster real-time student interaction, facilitate remote event participation, provide GPS-based navigation to event venues, and offer a secure check-in process through facial recognition technology, thereby improving overall user engagement, accessibility, and security.

**Research Gap**

The gap identified in the research work centers around the absence of a comprehensive and efficient system for event management. The proposed system aims to fill this gap by addressing the shortcomings of previous approaches, particularly in the areas of event audience interaction and cross-platform app development.

Article Title: Event Management Systems (EMS)Authors: Shah, Drahsti & Vasudavan, Hemalata & Razali, Nurul Farhaini. (2023)

**Summary of the work**

This study aims to develop a web-based Event Management System (EMS) to streamline event planning and organization on a single digital platform, eliminating the need for users to switch between different consoles and enhancing convenience. The research encompasses four key strategies, including technical research, EMS development, mixed-method data collection, and data analysis. The study also outlines the system architecture, project plan, and implementation process of the EMS. Furthermore, the system's functionality was evaluated through testing conducted by two users, both from the client and admin perspectives, to assess its effectiveness and usability.

**Methodology**

The event management system was constructed using Rapid Application Development (RAD) which involves careful consideration of critical development factors through comparative investigations. The selection of technologies is based on their compatibility and ability to maintain overall system performance. Specifically, the system will be developed in two programming languages, React JS for the front end and Express.js for the back end, with Microsoft's Visual Studio Code 2019 as the primary integrated development environment (IDE). The backend construction will rely on Express.js and MongoDB to efficiently handle queries, while Node.js will serve as the chosen web server. Furthermore, the user interface design will be enhanced using the CSS framework Tailwind, ensuring optimal compatibility with popular web browsers.

**Recommendation**

The researchers recommended that improvements should be made to the EMS web application based on user feedback and emerging technological advancements. Despite limitations like time constraints and technical expertise, collaboration with a diverse team and seeking external support if needed can aid in enhancing system functionality. Regular user testing and feedback collection should continue to ensure the application aligns with user expectations and remains user-friendly.

**Research Gap**

The research gap in this study is notable due to its exclusive focus on a web-based System (EMS) rather than a mobile application which has benefits in terms of accessibility, scalability, and cross-device user engagement.

Article Title: Smart College Event Management System Using MERN Stack

Authors: Pansare, A., Patil, A., Patil, N., Patil, Y., & Bhonde, A. (2023)

**Summary of the work**

This study emphasizes the importance of events in college life and the increasing complexity of managing event details with conventional tools like spreadsheets and databases. To address these limitations, a new Smart Event Management System has been developed using web development technology. The primary goal of the project is to establish an efficient Event Management System for the college, with a particular focus on automating data management and report generation. This initiative is driven by the need to rectify the deficiencies and inefficiencies observed in traditional college event management systems.

**Methodology**

The methodology for developing the Smart Event Management System (EMS) relies on a combination of web technologies and the MERN (MongoDB, Express.js, React.js, Node.js) stack. HTML is used for structuring content, CSS for styling, and JavaScript for dynamic web-behavior. The MERN stack facilitates a three-tier architecture, with React.js for the front end, Express.js and Node.js for server operations, and MongoDB for data storage. This approach ensures a robust and user-friendly web-based EMS.

**Recommendation**

Future research and development efforts should focus on expanding the system's capabilities and accessibility. Consider adding new features and functionalities to enhance user experience. Exploring the development of a mobile application for both iOS and Android platforms is essential, as it would improve accessibility and accommodate a broader user base. Additionally, implementing features like improved profile management and QR code-based guest registration would enhance the system's usability. This ongoing development will ensure the system remains user-friendly and aligned with evolving user needs.

**Research Gap**

The research gap in this study is that it doesn't thoroughly explore the possibility of developing a mobile application for iOS and Android platforms. While it suggests that creating such an app could improve accessibility and cater to a broader range of users, it doesn't delve into the specific details and challenges involved in this development.

Article Title: A Study and Implementation of Event Management System Using Smartphone Authors: Sachin A., Altaf T., & Amol B. (2019)

**Summary of the work**

This research highlights the development of an Android application for event management, with a focus on educational, medical, and social events. The application aims to address existing system problems and provide an accessible and user-friendly solution. It will be developed using Android Studio and will utilize an SQL database for backend management. The system allows users to register for events and offers basic functionality for event planning, including date and time selection, venue choice, and equipment selection. The data is stored in a database, and users receive a booking receipt. The administrator can interact with clients based on their requirements. Overall, the paper introduces an Android app designed to simplify event planning for users, catering to various event types.

**Methodology**

The methodology for developing the Android event management application follows the Model-View-Controller (MVC) architectural pattern, which separates the app into three core components: Model, View, and Controller. The Model stores data independently, the View presents it through a user-friendly interface, and the Controller manages user interactions. This Android app targets educational, medical, and social events, developed using Android Studio and an SQL database. The goal is to provide a straightforward event planning experience for Android users.

**Recommendation**

This project serves as a good introduction to event management systems, including online ones. It explains the proposed system and its features while providing an overview of the technologies used. To make it even better, the researchers suggest exploring new and innovative features in the future. These improvements can keep the project relevant and aligned with changing user needs and industry advancements.

**Research Gap**

The research gap here is that the project concentrates exclusively on creating an Android event management app, which means it's only available to Android users. This neglects users on different platforms like iOS. To address this limitation and make the system more inclusive, future research should explore ways to develop versions for other operating systems or consider cross-platform solutions.

Article Title: Online Event Management System

Authors: Mohana, S., & Anbumani, P. (2022)

**Summary of the work**

This research aims to address the evolving needs of clients in an increasingly digital world by developing an Online Event Management System. With the pervasive growth of technology, the project seeks to transition event planning and management into the online realm to better engage clients who are frequently on the move. The primary objectives include analyzing the current management practices employed by event planners and identifying the essential system requirements necessary for the design and implementation of an effective Online Event Management System.

**Methodology**

The methodology involves using several technologies, including GPS, Android, XAMPP, PHP, and MySQL. GPS for location-based services, Android as the development platform, XAMPP as the local environment, PHP for server-side scripting, and MySQL for data management. These technologies are combined to create the event management application on Android.

**Recommendation**

This online event management system offers unique features and can be applied to different settings and event scales, including smaller local events often overlooked by existing systems. To fully realize its potential, it's advisable to explore diverse implementation possibilities and adapt the system to various event scenarios, ensuring its relevance and effectiveness in today's digital age.

**Research Gap**

The research gap is that the Online Event Management System (OEMS) lacks a comprehensive exploration of its adaptability to different event types. While OEMS caters to various events, the paper doesn't detail how it customizes processes for specific event categories. Further research is needed to understand how OEMS can offer tailored solutions for diverse event needs.

**3.1 Proposed Methodology**

A comprehensive inquiry such as this is used in the research technique to unearth new facts or information about the current system. The research method used in this study is the primary and secondary source of data collection.

**Primary Source of Information**

This includes data gathered directly or indirectly from target users, with no edits or suggestions from other writers. This main source's material is considered more accurate and credible. As a result, the goal is to incorporate the knowledge gleaned from this source into the project in order to satisfy the criteria. Interviews and observations were used as primary source data collection strategies.

**Secondary Source of Information**

This essentially includes all of the information that someone can receive from existing sources such as books, the internet, case studies, articles, newsletters, and other relevant publications. The resources obtained from the internet in particular were quite relevant; various search engines, particularly Google, made it very easy to find information.

**3.2 Choice of Programming Language**

The proposed design will be implemented using Flutter for its user interface (frontend) while the APIs will be written in pure Dart, Firebase will be used for its database due to its simplicity, speed, and real-time feature, the combination of the above modern technology forms the technology for this research work.

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