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Chapter 1

THE PROJECT AND ITS BACKGROUND

INTRODUCTION

In the era of digital transformation, modern technology has significantly influenced various aspects of the society. Modern technology has reshaped the way people communicate, learn, work, and even organize events. The advent of event management systems, for instance, has revolutionized the event planning industry. These systems have streamlined the process of planning, organizing, and executing events, making the event more efficient and less prone to errors. They have also enhanced the attendee experience by providing easy access to event information, ticketing, and communication channels.

According to Ramsborg, G.C.; B Miller (2008). Event management is the application of project management to the creation and development of largescale events such as festivals, conferences, ceremonies, formal parties, concerts, or conventions. Event management involves studying the brand, identifying the target audience, devising the event concept, planning the logistics and coordinating the technical aspects before actually launching the event.

Republic Act of No.10173, also known as Data Privacy Act of 2012, an act protecting individual personal information in information and communications systems in the government and the private sector, creating for this purpose a national privacy commission, and for other purposes. “Section 2. Declaration of Policy. – It is the policy of the State to protect the fundamental human right of privacy, of communication while ensuring free flow of information to promote innovation and growth. The State recognizes the vital role of information and communications technology in nation-building and its inherent obligation to ensure that personal information in information and communications systems in the



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government and in the private sector are secured and protected.”

The project developers work begins with the recognition of the growing need for efficient, reliable, and user-friendly event management systems. Project developers develop "EventPro: Comprehensive Event Management System" to address this need. The system is develop to simplify the event management process, from planning and ticketing to communication and feedback collection. The system is builtwith a focus on user experience, data security, and adaptability to various event types and sizes. As the community move forward, people aim to continuously improve the system based on user feedback and technological advancements.

Project Context

The system, "EventPro: Comprehensive Event Management System," is a modern and innovative solution to the challenges faced by event organizers.

Traditional event planning methods are often time-consuming, inefficient, and prone to errors. The project system aims to address these issues by streamlining the event management process and enhancing the attendee experience.

The system incorporates various devices and module, including Radio Frequency Identification technology and a Global System for Mobile Communication module. These components enable seamless access control, attendee tracking, and communication, as well as real-time updates and notifications.

To develop the system, project developers require knowledge of event planning and management, as well as expertise in programming software, APIs, and hardware. Project developers also needed to ensure compliance with relevant laws and regulations, such as the Data Privacy Act of 2012.



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The Short Messages Service module, Radio Frequency Identification, and Radio Frequency Identification scanner are also integrated into the system, depending on the specific needs of the event. These components enable efficient data collection and analysis.

Therefore, the system provides a comprehensive and efficient event management solution that enhances the attendee experience and enables event organizers to make data-driven decisions. By incorporating modern technology and innovative features, project developers aim to revolutionize the event planning industry and provide a valuable service to the clients.

Purpose and Description

The purpose of the system is to develop a comprehensive event management system that simplifies the process of organizing and managing various events, including weddings, birthdays, themed parties, wedding anniversaries, family events, team building, and other special occasions. The system aims to streamline the event planning process, enhance efficiency, and provide a seamless experience for both event organizers and attendees.

The project developers target clients include individuals, event planners, event host, organizations and specially, single event organizer who are involved in organizing and managing events. The end users of the system will be the organizers. By providing a user-friendly platform, the system aims to benefit both event organizers and attendees by offering a convenient and efficient way to plan, coordinate, and participate in events.

To develop a system, system developers require knowledge of event planning and management, as well as expertise in programming software, APIs, and hardware. The necessary knowledge includes understanding event logistics, budgeting, vendor (catering management), and attendee registration in the android app of this system. In terms of programming software, system developers will utilize a combination of front-end and back-end technologies to create an intuitive user interface and ensure smooth functionality.



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In terms of hardware, the system will utilize devices such as Radio Frequency Identification, Radio Frequency Identification Scanner and Global System for Mobile Communication module to enable features like real-time updates of logging in and notifications. These devices will enhance the overall event experience by providing accurate information, seamless check-in processes, and efficient communication between event organizers and attendees.

In summary, the project aims to revolutionize the event management industry by providing a comprehensive and user-friendly system that simplifies the planning and execution of various events, while ensuring a seamless experience for all stakeholders involved.

EventPro is a powerful and comprehensive event management system designed to streamline the planning, organization, and execution of events. The purpose of EventPro is to simplify the complex process of event management, saving time and effort for event organizers while delivering exceptional experiences for attendees. EventPro is a comprehensive event management system that revolutionizes the way events are planned and executed. EventPro empowers event organizers to create memorable and successful events while delivering exceptional experiences for all stakeholders involved.

Objectives

The project developers intend to develop a Comprehensive Event Management System: EventPro that will take a major role for event organizing.

Specifically, the project developers aim to:

1. develop a system that will enhance the experience and expectation of seamless events that is normally required more time to prepare and execute using Desktop Applications.
2. develop a system that will notify and remind the client of the upcoming events that will be held on a specific venue using the Global System for Mobile Communication.



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3. develop a system that will present the available 6 venues for this system using the Website Application.
4. develop a system that allows the client's users (attendees) to explore and view other features using the Android Application
5. develop a system that will login the end user (Super Organizer and Regular Organizer) of the Desktop Application using the Radio Frequency Identification.

Scope and Delimitation

Event Management System, named "EventPro," the project developers envisage a comprehensive solution dedicated to streamlining event planning and execution. Crafted to provide end-to-end event management capabilities, the system boasts a user-friendly interface empowering organizer to effortlessly create and manage various events, customize registration forms, and meticulously track attendee information. The system's versatility extends to supporting multiple event types, encompassing conferences, seminars, workshops, and social gatherings. The system acts as a centralized hub for event-related data, offering robust reporting and analytics features. Event organizers can extract valuable insights into attendee demographics, monitor ticket sales, and evaluate overall event performance.

However, inherent in any technological endeavor, the system encounters limitations. The system is constrained by hardware limitations, with the system performance contingent on specific memory and processing requirements. Corporate or regulatory policies governing certain features or data handling practices cannot be circumvented, imposing constraints on the system's operations. Additionally, the system's language requirements may limit accessibility to users who prefer alternative linguistic interfaces. While prioritizing security considerations and implementing measures to safeguard user data, the system remains subject to the evolving landscape of cybersecurity threats. The dynamic nature of these challenges implies that, despite the best efforts of the project developers, The system security may have inherent limitations dictated by the chosen security measures.



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In defining the scope of the Event Management System, the aim is to provide a powerful tool for organizers while recognizing and communicating the realistic constraints inherent in its design. These boundaries include hardware limitations, regulatory compliance, language preferences, and the ever-evolving challenges in the realm of cybersecurity. Through this thesis, the system developers aspire to contribute to the discourse on event management systems, acknowledging the balance between ambition and practicality in the technological landscape.

Technical Background

The project developers aimed to develop Event Management System equipped with Radio Frequency Identification technology and Global System for Mobile Communication module, the Event Management System, named "EventPro," is develop to provide seamless and efficient event planning and execution.

The Radio Frequency Identification Scanner and Radio Frequency Identification card serves as pivotal components in ensuring secure and convenient access control for event participants. The Radio Frequency Identification card, serving as a personalized login credential, contains essential information about the account owner, facilitating quick and accurate identification during check-in processes. Simultaneously, the Radio Frequency

Identification scanner acts as the input mechanism, swiftly reading the Radio Frequency Identification card upon contact, thus allowing the system to verify the legitimacy of the user attempting to log in.

The utilization of Visual Basic 2019 (VB.NET) programming language for the core development of the system highlights the project's commitment to robust, user-friendly, and widely supported software solutions. VB.NET's versatility and ease of integration provide a stable foundation for the system's functionality, ensuring a smooth user experience for both event organizers and attendees.

The Android application, crafted using Android Studio, extends the reach of EventPro to a broader audience, catering to the widespread use of mobile devices. This



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platform enables event participants to interact with the system conveniently through their smartphones, offering features such as event details, schedules, and personalized notifications. The integration of the Android application enhances the accessibility of EventPro, making it an inclusive and user-centric solution for modern event management.

Furthermore, the inclusion of a Global System for Mobile Communication module in the system enhances communication capabilities, playing a crucial role in both pre-event and post-event phases. The Global System for Mobile Communication module facilitates the automated dissemination of notifications and reminders to participants, ensuring that crucial information reaches them in a timely manner. During the pre-event phase, organizers can streamline communication by sending uniform messages to all guests, thereby minimizing the risk of oversight and enhancing overall coordination.

The Entity Relationship Diagram illustrates the connections between the entities within the developed system, showcasing their inter dependencies and relationships. The EventPro: Event Management System entity-relationship diagram comprises three (3) major entities. The super organizer entity, the regular organizer entity, the event type entity. Under the super organizer entity, there are seven (7) attributes, radio frequency identification_id that serves the primary key, last_name, first_name, middle_name, user_name, password, and role. On the other hand, the regular organizer consists of eight (8) attributes, radio frequency identification_id, that also serves the primary key, last_name, first_name, middle_name, user_name, password, and role and specific event type. The last entity is the event type entity, event type consists of eight (8) attributes, anniversary, barangay program, birthday, conference, family gathering, themed party, and wedding. The super organizer entity is correlated to the regular organizer where the super organizer can control and manage mostly 80% of the overall system experience, therefore super organizer can also control the reservation of certain events as the client detail is requested.

Super organizer can also create new account either super organizer or just a regular organizer depending on what necessary circumstances. The regular organizer entity can control and manage probably 20% of the system. Each and every single



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account of the regular organizer can only access one specific type of event such as birthday otherwise, the super organizer. Regular organizer can handle tasks such as monitoring the full information of a reserved event, can add the guest/participant/attendees therefore, regular organizer is responsible for monitoring the least information of the participants. The last major entity encompassing the type of event, event type entity and the attributes are the current choices or available type of events in the system, however, system developer can expand the type of event as the modern era needs and require more modern type of events. The current type of event in EventPro consists of anniversary, in the anniversary, there are few choices as anniversary is generally descriptive and type of anniversary are available.

The Data Flow Diagram illustrates the management of data or flow of data on how the data is stored in a database. The EventPro: Event Management System data flow diagram comprises of two (2) entities – super organizer and regular organizer, four (4) data stores and a total of seven (7) processes, six (6) for super organizer entity and three (3) for regular organizer entity.

In the flowchart of the prototype, designs and illustrations are shown in the process of how the system works. The starting part is where the super organizer or regular organizer must log in thru username and password or thru radio frequency identification cards. If the username and password of an account is valid, the system show notification saying “Login Successfully!” and if not valid and unauthentic based from the accounts that are saved in database, the system will remind and show notification saying “invalid input, please try again” and will go back to input the username and password. On the other hand, using the radio frequency identification cards to log in, by tapping the radio frequency identification cards on the radio frequency identification scanner, if the radio frequency identification card number that is indicated in the card itself is saved in the database and is authentic and valid, the system will display a notification message saying, “Login Successfully!” and if not, the system will display the same notification message if not valid which is “invalid input, please try again” and will still remain in the tapping part of the scanning.



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The flowchart of the website of the developed system will start on the homepage of the EventPro: Event Management System. The website of EventPro, is focused on capturing the eye of the clients by the friendly surface and well related event scenery. The website is very informative compare from the desktop system itself. The website's main focus is to deliver and show the images of the available venues around the area of Montalban. Currently, there are five available venues but as the system developer's roaming ideas, the website should also update the venue into numerous and more capable of handling many events and in many places here in Montalban. However, as of the current related circumstances, the five available venues are very relatable and the information that is displayed there is accurate. The addresses, the emails, the contacts, and other information of the venue is available as well as the rates of every venues listed in the website. The website works and will see the main and full information of the venues if the visitor, client, or guest is registered, therefore, the static viewing of the website is very limited. Crucial and important information will be uncovered until the viewer of the website registered, therefore, the full details and exciting views of the venue will be presented in an accurate and friendly manner.

The desktop application for the user of the EventPro: Event Management System which is the super organizer and regular organizer are very ideal and friendly user as if the job is an easy task to handle but the truth is not, however, because of the developed system, EventPro, the job that will takes times, energy consuming, paper-based from the traditional input and output and hassle for organizers, will be done in such time-free consuming, system and tech-based and modern input and output also hassle-free for organizers.



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Chapter 2

REVIEW OF RELATED LITERATURE, STUDIES, AND SYSTEMS

Review of Related Literature

In this chapter, various local and foreign literature, studies, and systems were reviewed by the researcher to gain understanding of existing researches and other academic works relevant to the area of study, and thus, present a broader knowledge to the academic community and at the same time, help the researcher intensify his knowledge in the field.

Events management (also known as event planning) is related to project management. Project management is practiced in the organization of events such as festivals, conferences, sporting events, community-based events, charity events, educational events, and recreational events.

According to Gurung, Bikash. (2020), An event can be described as a public assembly for the purpose of celebration, education, marketing or reunion. Events can be classified on the basis of their size, type and context. An event can be a social / lifecycle event like a birthday party, engagement, wedding, funeral etc. or an education and career event like an education fair, job fair, workshop, seminar, debate, contest, competition etc.

According to a case study by Thompson and Miller (2019) titled “Event Management Excellence: A Comprehensive Analysis,” the event organizer, XYZ Events, demonstrated exceptional expertise in planning and executing large-scale corporate conferences. XYZ Events, a renowned event management company based in London, has successfully organized numerous high-profile events for multinational corporations.

According to Karen, F. (2019), In this paper, the authors focus on the development of an undergraduate course in event management and the rationale for the design of the curriculum, and propose an undergraduate degree program for event management in the Philippines.



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According to Kumari et al, (2015), To ensure that everyone is informed about relevant events like conferences, workshops, placements, etc., Kumari et al built an application that is completely functional and would determine the activities taking place in and around the institution or organization (Kumari et al, 2015). The contact information for subscribers is saved in a database, similar to the EMS with SMSN, and only the authorized user has access to re-add an existing user if their mobile phone is stolen or to add a new user. If a user leaves the organization, the authorized user may remove them. The E-Notifier has more coverage because it reaches the active user with the broadest assortment of activities. Users can search for events based on their areas of interest, such as sports, culture, alumni, etc. They can also follow their favorite events to receive notifications when new events are added. It is also simple to locate local activities like inter-institutional gatherings, etc. With a single tap, users can view events happening in the institute categorically from several categories including sports, departments, cultural events, etc. Additionally, the alerts can be in a variety of forms, including PDF, DOC, and RTF, and they employ JavaScript Object Notation (JSON), which is the ideal replacement for XML, the Android operating system, PHP (Hypertext Pre-processor), and the MySQL database. In addition to reading announcements, staff and students can use the application's blog to participate in events and respond to them. The component that displays information uses dashboards as its user interface, and it has a web server and database that are utilized to dynamically contain user login information along with events and notifications. Guest users can sign up for activities at the college and check the users who have already signed up. However, guest users are not permitted to participate in the blog. The software can be utilized anytime and anywhere.

According to Olaleye et al, (2013), An SMS-based event notification system was created in Nigeria (Olaleye et al, 2013). The proponent's system is similar in that it delivers notifications by SMS, stores contact information and details in a database, allows users to enter their user ID and password, can add or change contact information, and can send notifications once the administrator chooses which contacts to notify. Contrary to the proponent's system, this enables scheduling of SMS messages across all SMS gateways, even those that don't support it internally. Additionally, users have the option to cancel



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any scheduled messages if necessary. The send method returns an object that includes the response message from the SMS gateway and a warning signal for errors whether the send procedure was done. The reply will be selected from the interface's predetermined set of replies, ensuring that all SMS gateways use the same set of responses.

According to Verma, P. & Gupta, N. (2013), SMS Technology can be used in attendance system, just as the Fingerprint Based Student Attendance System Using GSM by Verma and Gupta in India (Verma & Gupta, 2013). Just like the proponent's EMS with SMS Notification, it can send notification thru SMS using a GSM modem. The system keeps the contact information and information in the database but it has a module for attendance and fingerprint acquisition. It can carry out automatically tasks including gathering fingerprint information, processing it, wirelessly transmitting it, matching fingerprints, and creating an attendance record. With this technique, there is no longer a need for stationary items or staff to maintain records. This system utilizes a SIM 300 GSM module. It is an industrial GSM module that offers voice, data, short messages, and FAX as its four transmission options.

According to Florendo, J. ., Salting, R. J. ., Ballongay, R. ., Dionson, D. M. ., Imperial, M. C. ., & Concepcion, E. . (2020), The proposed study used the processes of analyzing, planning, marketing, producing, and evaluating an event. It is a different way of promoting a product, service, or idea. If an event is managed efficiently and effectively, it can be used as a powerful promotional tool to launch or market a product or service. Events management requires certain core values to be deployed to every element, process, and decision to justify the professional approach and achieve effective and efficient results. By using the agile scrum methodology, the development team started the research by conducting interviews and getting the needs and wants of the product owner and team. The researchers researched, developed, executed, and created legacy value for what our product owners need and want. This research identified the process and limitations of the event system and the demands of the clients. The proponents identified the problems of the clients to find a possible way to meet the demands of the clients.



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Hence, the researchers created a system that will help reserve online. The developers provided a system that will have high security to avoid intruders and prevent leakage of information online. Based on the results, the proponents created a system that will help meet the demands of the clients. The proposed research differed in terms of ease of use and systems integration. The use of a cloud-based system reformed the IT industry and upgraded students in innovating simple ideas into a finer community.

According to a study by Garcia and Chen (2017) titled “User Engagement in Mobile Event Applications,” the user, attendee, and audience play distinct roles in the context of event management. The term "user" in the research refers to those who use mobile event applications to interact with event material, obtain event-related information, and make use of the application’s features. These users could be attendees, exhibitors, sponsors, or anybody else who has access to the event’s mobile application. In order to increase user engagement and satisfaction, the study underlines the value of providing user-friendly interfaces, clear navigation, and personalized features.

According to a study by Fernandez (2019) The growth of the event management industry in Asia is well documented, but few degree programs are offered by Asian universities. In the Philippines, there are no existing degree programs in events management although there is a professional certification course offered by the Technical Education Skills Authority (TESDA). This research will focus on the development of an undergraduate course in event management and the rationale for the design of the curriculum. Keywords: event management, undergraduate degree program.

According to a study by Navamani (2023) This paper describes a website-based event administration portal. This paper offers the capability of remotely adding, deleting, and retrieving information to various event attendees. This project is capable of giving the admin and everyone else involved in a specific occasion all the necessary access. It allows the administrator to view a list of participants. Administrators will also have the ability to add or remove events. The aim of this project will simplify the event management process by reducing paperwork and labor requirements. The goal of this project is to digitalize the event management processes. It is also simple to use, allowing anyone to



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conduct event management tasks from anywhere and at any time. Most of the fundamental features needed by any event manager to operate the event smoothly are provided by it. This is done in order to meet the requirements of both the event manager and the attendees. They can fill out their information and sign up for the program. The administrator receives this information and may use it to get in touch with the users. \

According a study by Ballesteros (2021) In the events management industry, we are all thrown in the dark. We saw billions of income go down the drain. The chance to recover it is nowhere in sight. It may take two or more years before we can see signs of recovery and growth. But the road to recovery will never be the same as before. We totally lost the old ways of events management. The digital world took over. If changing the behavior takes time. A more than a year's dependency on technology attending virtual conferences, webinars, and expo conditioned us to expect that post-pandemic will be nothing that we have experienced or know in our implementation of business events during the pre-pandemic era.

According to a study by Dubey, Mishra, Banarjee and Jumle (2023) Online event management system is an online event management system software project that serves the functionality of an event manager. The system allow only registered user login and new user are allowed to register on the application This proposed to be a web application. The project provides most of the basic functionality required for an event type e.g. [marriage, Dance Show birthday party, etc.], the system then allows the user to select date and time of event, place and the event equipment. All the data is logged in the database and the user is given a receipt number for his booking. The data is then send to administrator (website owner) and they may interact with the client as per his requirement.

According to a study by Hamid and Halim (2023) This opinion paper explores the burgeoning influence of Artificial Intelligence (AI) within the event management industry. AI has emerged as a powerful tool, offering innovative solutions for event planning, execution, and attendee engagement. This paper provides a comprehensive overview of AI's role in event management, discussing its applications, benefits, and potential



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drawbacks based on contemporary researches and publications. By analysing six (6) current trends and four (4) critical reception of AI in the event industry, we aim to shed light on its transformative potential and its implications for the future of event management. At the end of the paper, the researchers provide recommendations on how to navigate the obstacles in implementing AI technology in event management. This paper is critical in its role to ignite discussions regarding AI implementation in event industry as there are currently very few academic writings on this topic.

According to a study by Nirupama (2023) The proposed project aims to develop a College Event Organizer, an online platform for colleges to efficiently schedule and manage both technical and non-technical events. The system allows students to organize an event by registering their event in the website and upon approval by the Principal of the Institution, hence creating a channel to communicate directly instead of many tedious manual paper-processes. The system allows students to upload event information in formats, such as text and images. Students can look for upcoming events displayed on their dashboard and register for the events they wish. Additionally, the platform enables the admin and principal to pass messages to the event coordinators regarding the event along with approval or rejection of their events registered. The system ensures that every student is well-informed about upcoming events by notifying them, encouraging active participation, fostering a more engaging and enriched event experience. Key Words: Memcached, Redis, RSVP, Fostering.

According to Richards, G. (2021), Given this general background of global academic development, this paper proceeds to analyse the situation of non-English publications in the field of event management, where a recent review by Yeung and Thomas (Citation2021) indicated that academic research measured in terms of Scopus outputs is predominantly in the English language. In a commentary on this research, Richards (Citation2021) pointed out that literature searches based on Scopus were likely to produce results biased towards English publications. As suggested by Richards (Citation2021), the current paper sets out to examine the event management literature in nonEnglish languages, to see whether substantial contributions to the literature are being



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missed by relying on English language databases. We explore the scale of the language issue in event management, identifying possible causes and potential solutions.

According to a study by Prakash, Bharathi, Rajakumaran and Logesh (2023) With a relatively low level of standardization, event management is a profession that is strong and rapidly expanding. We frequently consider event management to be a part of project management, but we must remember that this approach has limitations and requires more advanced techniques. We categories events, contrast project management and event management, review standards in both disciplines, and talk about potential directions for a future with more robust standardization of event management. Key Word: event management; event management Body of Knowledge.

According to Study Moose (2016) This paper describes a website-based event administration portal. This paper offers the capability of remotely adding, deleting, and retrieving information to various event attendees. This project is capable of giving the admin and everyone else involved in a specific occasion all the necessary access. It allows the administrator to view a list of participants. Administrators will also have the ability to add or remove events. The aim of this project will simplify the event management process by reducing paperwork and labor requirements. The goal of this project is to digitalize the event management processes. It is also simple to use, allowing anyone to conduct event management tasks from anywhere and at any time. Most of the fundamental features needed by any event manager to operate the event smoothly are provided by it. This is done in order to meet the requirements of both the event manager and the attendees. They can fill out their information and sign up for the program. The administrator receives this information and may use it to get in touch with the users.

According to Ex Link Event management plays a key role in customer engagement. Event planners can create and manage memorable events that will foster meaningful interactions between customers and the business. This helps create an emotional connection between customers and the brand, creating a more devoted customer base. Events can also be used as a platform to showcase new products, services, and content that can help reach a wider audience and create a more positive



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customer experience. With the right strategies, event management can help strengthen customer relationships and create a more meaningful customer journey.

According to IET (Indeed Editorial Team) “Event management” is important because it can help ensure that events operate correctly. Event managers can organize events of all sizes and create plans and budgets. For established companies or new ones, event management can be part of a comprehensive marketing strategy. Having small-scale or large-scale events can help in promoting a brand and furthering a business's interests. Events can foster opportunities for people to gain awareness of the host organization's products and services, and events may even convert attendees into loyal customers.

Larger scale events like the Tour de France have taken on greater importance in recent times as a way of achieving regeneration, rebranding and re-imaging (Foley et al., 2012). They are used as part of the process of cultural planning and shaping of the urban environment. Leveraging the social benefits of events can result in positive impacts, notably through the shared experiences associated with hosting it, community pride, renewed hope and achievement (Foley et al., 2012).

According to study about one key application of tracking technology in event management systems is attendee tracking. Radio Frequency Identification tags or badges can be provided to event participants, allowing event organizers to monitor their movements, collect attendance data, and provide personalized experiences. This enables organizers to track attendee traffic patterns, identify popular areas or sessions, and optimize event layouts for better crowd management. A study by Li et al. (2019) found that attendee tracking through Radio Frequency Identification technology improved event planning efficiency, reduced wait times, and enhanced overall attendee satisfaction.

According to study research on online authenticity in event management emphasizes the importance of trust and credibility in ensuring successful online events. In their study, Kim et al. (2019) highlighted the significance of perceived authenticity in



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online event registration platforms, as it positively influences participants' trust, satisfaction, and intention to attend events. Establishing authenticity in online platforms helps mitigate concerns regarding scams, fraud, or misinformation, thereby increasing attendees' confidence in the event.

According to Po-Ju Chen, Dipendra Singh, Ahmet Bulent Ozturk, Abdullah Makki (2014) This study utilized intercept surveys collected from attendees at a non-profit fundraising event organized by the tourism and hospitality industry in a major tourism destination. Factor analysis was used to explore underlying event performance dimensions. Multiple regression analysis was used to assess predictability of event performance and unique experience design as predictors of event quality.

Synthesis of the Review

The Comprehensive Event Management System, "EventPro," is developed to address the challenges encountered in the traditional event management processes. Literature and studies relevant to event management and its technology systems, particularly in the Philippines, underscore the influence of technology in enhancing the success rate and efficiency of events. The adoption and implementation of event management systems in the country vary, yet the impact is notable across different platforms. Technology utilization in event planning, ticketing, registration, and attendee management has significantly influenced event attendance, participant satisfaction, and overall event outcomes, thereby affirming the indispensability of a comprehensive event management system like EventPro. However, the benefits come with limitations and challenges which require insightful approaches for improvement.

The study of "Event Management System with SMS notification for Mindanao People's Care Foundation, INC (2022) by Fahad M. Reyes, the goal of this study was to solve the issues that come up while handling events manually, provide a practical solution, and hasten the transmission of information about the client's meetings and activities, the Mindanao People's Care Foundation Inc. (MPCFI). The main objective of the project is to design and develop an Event Management System with SMS notification



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to notify the employees of the aforementioned clients about important and/or urgent events and announcements.

The system was deployed using the framework-dependent deployment with Microsoft Visual Studio This research provides significant contributions in promoting productivity since it is easy to use and is time-saving. It also provides safety and security of records since it's free from the flaws of using the traditional paper and verbal announcements. With its SMS notification feature, the employees and volunteers can quickly receive the important messages It therefore promotes good flow of communication between superiors and subordinates within the office/organization.



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Chapter 3

EVALUATION, DESIGN, AND FRAMEWORK

This chapter deals with the presentation of the discussion of expected and justification, operational and conceptual framework used, the software, hardware, client requirements as well as the definition of terms.

Discussion of the Expected Output and Justification

The expected output for the "EventPro: Comprehensive Event Management System" is a user-friendly, efficient, and comprehensive platform that handles all aspects of event management, from registration of specific event to attendee management, schedule monitoring, and logistics. The system aims to simplify the complex process of event management and make the system accessible to both event organizers for Desktop Application and attendees for the Android Application. The primary features of EventPro, such as the Radio Frequency Identification and Global System for Mobile Communication module functionalities, are designed to provide modern and quality experiences for users. The Radio Frequency Identification functionality, for instance, ensures swift and seamless registration processes of one organizer to logging in, automated check-ins and check-outs, and helps in avoiding long queues and confusion at event locations. The Global System for Mobile Communication module functionality, on the other hand, offers attendees notification assistance to event venues, making the journey to events much more straightforward and hassle-free.

EventPro also provides real-time updates and an interactive platform for interaction between event organizers, attendees, and vendors. Through this feature, organizers can send instant notifications about event schedules, changes, and other essential information. Attendees can view these updates and make the necessary adjustments to their plans, thus enhancing their overall event experience. Vendors, too, can benefit from the system by keeping track of their services provided and interacting directly with organizers.



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Security is a major focus of EventPro. The system is designed to maintain the confidentiality and integrity of user data while ensuring maximum user satisfaction. User accounts of attendees in the android application are secured with strong authentication mechanisms, and personal data is encrypted to protect against unauthorized access.

In terms of justification, the development of such a system is necessary given the increasing complexity and scale of events being organized today. The system combines several key technologies to deliver a platform that can cope with this complexity and provide a seamless experience for all parties involved. By addressing the key challenges faced by event organizers and attendees, EventPro can significantly enhance efficiency, security, and overall user satisfaction in the field of event management.

The project developers have conducted thorough research on Radio Frequency Identification and Global System for Mobile Communication module technologies, data security, and user interface design to ensure that EventPro is a robust, secure, and user-friendly system. By combining these technologies and design principles, EventPro is set to revolutionize the way events are managed and experienced.



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Operational Framework

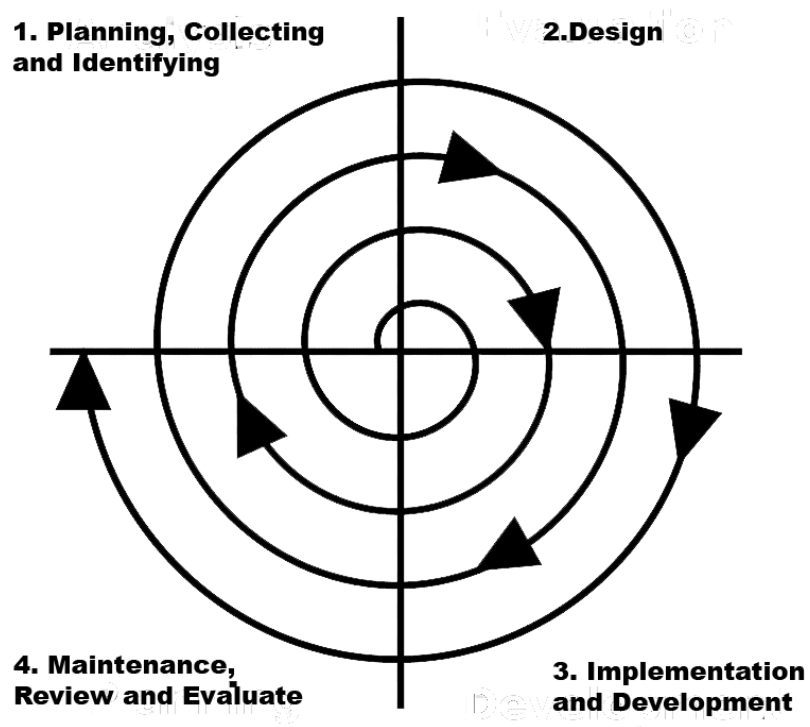


Figure 1

An Operational Framework illustrating the development of the Comprehensive Event Management System, EventPro, using the Spiral Model



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The project developers, have employed the spiral model for the testing and maintenance of EventPro. This process is iterative and allows us to revisit different stages of the development whenever a bug or an error occurs, ensuring that continually refine and improve the system. This cyclical process will persist until the project developers are confident that EventPro is fully operational, robust, and free from bugs.

In the first phase, project developers collect all the necessary information for the creation of the event management system, EventPro. Project developers lay out a plan detailing how the process will unfold, starting from this initial phase right through to the final delivery. Project developers plan also includes the collection of requirements for EventPro, incorporating all essential features, functionalities, and performance criteria. This step is crucial in ensuring that the system aligns with the needs of event organizers and attendees.

During the second phase, based on the requirements collected, project developers proceed to the design phase where project developers create the blueprints for EventPro. This involves crafting a user-friendly Graphic User Interface (GUI) and planning the integration of functionalities such as attendee monitoring, real-time notifications, android application that is based from navigation and secure payment information handler. This phase allows us to visualize how the different components of the system will come together to offer a comprehensive event management solution.

In the third phase, the project developers, start coding and implementing the system as per the design specifications. Project developers integrate and configure all the previously defined functionalities and begin in-depth testing. This phase allows us to identify and fix any bugs or issues that might arise, ensuring that EventPro is robust, functional, and ready to serve users effectively.

In the fourth and final phase, the project developers move into the maintenance stage of EventPro. A thoroughly test the system to identify any possible errors or bugs that might have slipped through the previous phases. Any issues identified are promptly



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fixed until project developers are confident that the system is fully functional and meets the high standards have set. This phase ensures that EventPro is a reliable, effective, and comprehensive solution for event management.



Conceptual Framework

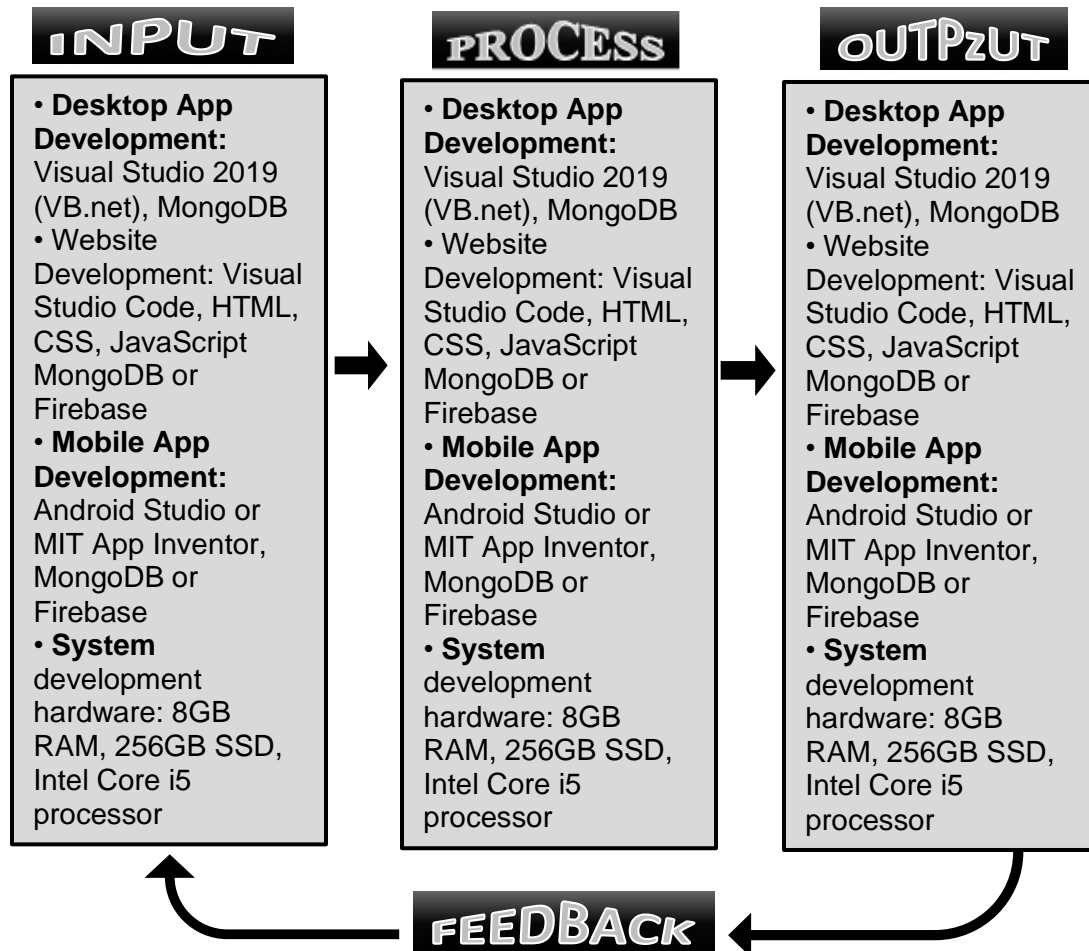


Figure 2

A Conceptual Framework Showing the Development of EventPro: An Event Management System



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The conceptual framework for the development of EventPro encompasses input, process, and output. The initial phase, the input, involves a set of development tools and system specifications necessary for system creation. This includes development environments like Visual Studio 2019 (VB.net) for the desktop application, Visual Studio Code with HTML, CSS, and JavaScript for the website, and Android Studio or MIT App Inventor with MongoDB or Firebase for the mobile application. The system will develop on a device with 8GB RAM, 256GB SSD, and an Intel Core i5 processor.

The second phase, the process, initiates with the formulation of the system proposal. Now then moves into gathering and analyzing the requirements for EventPro. With the requirements clearly defined, the team proceeds to design and develop the system using the aforementioned tools. Following the development, the system undergoes a series of tests and evaluations to ensure the functions as expected. The final step in this phase is the validation of the system through stakeholder feedback, which helps identify any areas for improvement.

Upon successful completion of the process phase, the output, or end result, is EventPro: A comprehensive event management system that enhances interaction, tracks events, maintains privacy and security, and offers a modern and quality experience to users. The feedback phase occurs postoutput, where the developers refine and resolve any potential issues that may arise from the system's implementation. This constant loop of feedback helps maintain the system's functionality and keeps aligned with user needs and expectations.

Requirement Specifications

The event management system requires a system that is accessible for both the user and the developer. This system will greatly assist the user's needs and wants in once in a life time event, the system has all the information, details by details because the clients are the one who will choose the event organizers, catering, hosts and etc. By providing easy access and user-friendly interfaces, users can navigate the system



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effortlessly, performing necessary task and accessing relevant data. Organizers will benefit from the system that can view and update their personal information and the bookings client has done.

The system requires the Windows 7 operating system or a higher version for the desktop application. To develop the software, an integrated development environment (IDE) such as Visual Studio 2010 and above is necessary.

The desktop application requires a minimum 1.8 GHz processor or faster, along with 8 GB of RAM (64-bit) and at least 128 GB of available storage disk space. These specifications ensure that the application runs smoothly and can handle the necessary processing tasks.

On the mobile side, the system only supports the Android operating system. Both the desktop application and the mobile application require an internet connection to access their features and functionalities.

On the other hand, for the mobile application, mobile application needs to run on the Android operating system and requires a minimum Android 4.1 version, 1 GB of RAM and 500 MB of storage. These requirements are designed to support the application's functionality while optimizing resource usage on mobile devices.

For web development, an appropriate IDE like VS Code, or any other suitable option can be used, along with programming languages such as HTML, CSS, and JS. The database utilized by the system is MongoDB or Firebase, providing storage and retrieval capabilities for the application.

In addition to these hardware requirements, both the desktop and mobile applications require specific additional hardware components. The desktop application utilizes a Radio Frequency Identification scanner for user log in, enabling users to conveniently and securely record the attendance. The mobile application also integrates a Global System for Mobile Communication module, which allows for SMS notifications to be sent, ensuring effective communication and timely information sharing. These



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hardware components further enhance the features and capabilities of the system, providing a comprehensive solution for attendees tracking and notification management.

Definition of Terms

Dashboard: A visual interface that provides an overview of key event metrics, such as registration numbers, revenue, and attendee demographics.

DFD (Data Flow Diagram): A DFD is a graphical representation of how data flows within a system.

ERD (Entity-Relationship Diagram): An ERD is a visual representation of the relationships between entities (objects or concepts) in a database.

Event management system: A software application designed to streamline and automate the process of planning, organizing, and managing events.

Event schedule: A detailed timeline or agenda that outlines the sequence of activities, sessions, and presentations during an event.

Feedback collection: The process of gathering opinions, suggestions, and evaluations from event attendees to assess their satisfaction and improve future events.

Flowcharting: Flowcharting is a visual representation of a process or system using various symbols and arrows to depict the flow of information, actions, or decisions.

GSM module: A hardware component that enables communication via GSM (Global System for Mobile Communications).

Mobile app: A software application designed for mobile devices that allows attendees to access event information, interact with other participants, and receive updates in real-time. Modern technology: Modern technology refers to the latest advancements and innovations in various fields, particularly in the realm of electronics, telecommunications, and information technology.



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Registration: The process by which individuals or organizations sign up to attend an event.

RFID (Radio Frequency Identification): A technology that uses radio waves to identify and track objects or individuals.