



Smart Event Management Platform Using Machine Learning

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Abstract

Now a day's, the events such as festivals, wedding etc. have become a core part of life which has resulted in event planning and Management Company to rise. With the customers and events increasing at larger rate, it is difficult to manage using traditional system using spread sheets, traditional database and more. In order to overcome the drawbacks of traditional Event Managing System, a new Smart Event Management System has been introduced which uses the modern technology of .Net Framework for managing various tasks and planning for employees, customer, location, transport and more. With the help of this technology, the distance between customer and management team has reduced with the Smart Web access. The current problem with the event management system is that it is manual and accessible only to staff. So, in the project, we aim to develop an online platform that will provide services for managing these small events. We have also observed the existing alternatives who are trying to solve these problems and decided the framework of our project accordingly to solve the problems faced by people and provide them a user-friendly and interactive platform so they could manage all the small events without the hassle and most importantly save their time.

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I Introduction

This event management services include hiring decorators, photographers, and cakes with smart features like recommendation systems and chatbots utilising artificial intelligence. This event management service will aid customers in locating and comparing the finest available services in their neighbourhood to celebrate their events. In this project, smart features are presented including a chatbot and a recommendation system for client happiness.

People living in metropolitan areas want help in this field since they do not have the time to organise the modest celebrations owing to their busy schedules, but there is no well-known and frequently used online platform that provides services for the administration of small events. We come into a few

issues, such as the fact that urban working-class

culture does not have the time to arrange their own personal events on their own. People also do not have direct touch with the local contractors, thus hiring event organisers is not recommended for smaller festivities.

The fact that the system for event administration is still manual and can only be accessed by staff members is currently one of its major flaws. As a result, the purpose of this project is to create an internet platform that will provide services for the management of these types of low-key events. We have also considered the alternatives that already exist and how they are attempting to resolve these issues, and we have designed the framework of our project to take these considerations into account.

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Our ultimate goal is to resolve the issues that people are facing and to provide them with a platform that is user-friendly and interactive, so that they can manage all of the small events without any hassle and, most importantly, save themselves time.

There is no popular and widely used online platform for small event management services and the people in urban areas need assistance regarding this as they do not have time to plan the small celebrations due to hectic schedules. People even shop for groceries online and in such present condition, there is no popular and widely used online platform for small event management services, even though the people in urban areas need assistance in these event management services. Clients have to travel to different decorators and photographers and make many phone calls in order to book and organize an event such as a birthday party, marriage, ring ceremony, or get-together. This takes a lot of time to search for different event organizers and contact them individually. So an online event management platform is much needed, enabling customers to make bookings and schedule their events at their preferred time. Also, this platform comes with smart features like a recommendation system and chatbot using artificial intelligence machine learning for customer satisfaction.

The following is an outline of the pre-planned sections of the paper: section 2 examines the related work of chatbots using artificial intelligence. In Section 3, we provided a detailed explanation of the technique that was recommended. In section 4, you will see a presentation of the results obtained using the suggested methods. Section 5 of the paper is where the conclusion of the article is delivered.

II. Literature Survey

In light of the present circumstances, continuing to use the old system in the configuration in as it is now found to be beset with a number of defects that make it useless. It should be noted that the aforementioned company continues to rely on manual labour for its day-to-day operations. It is difficult to keep track of all of the information on the events, customers, and services since there is so much of it. When preparations for an event are mismanaged, there is a greater chance that the event's execution will be delayed. The quality of the product is good when a computerised system is employed to control it, but it is not nearly as high as

it might be. It is conceivable, at present moment, to summarise the inefficiency of the existing system using none of the following words: The procedure that involves human participation consumes a significant amount of time. There is no way to ensure that the data will remain secure. It's possible that keeping accurate records over the long run may be challenging. A substantial quantity of accessible manpower is necessary. When dealing with significant transactions, you could experience a lot of stress.

M. Mahalakshmi [1] had a primary concept to keep the information about the College Event, as well as to manage the event and deliver the Student Registration time in the form of amounts with a verification code given to the student using a mobile application that was built on Android App. The development tools include Android SDK, as well as Java [1].

Khalil Pinjari[2] has proposed a strategy that will be accomplished via the use of computers; the strategy is built through the use of complicated language. An obvious option for a web-based programme. Festivals, weddings, birthday parties, and other celebrations have grown in importance over the years, paving the way for event organisers and management companies to flourish. Customers and events are multiplying at a rate that is difficult to keep up with using antiquated tools like spread sheets and relational databases. To address the drawbacks of the traditional Event Managing System, a cutting-edge Smart Event Management System has been proposed. The motivation and purpose behind these changes was to address some of the shortcomings of the conventional Event Management System. Internet-based system for coordinating tasks and initiatives involving several entities and elements, such as employees, consumers, physical spaces, and transportation [2]. Prof.Lee, M. J., & Back, K. J. (2005), Festival, event, and conference management are all covered in this paper's introductory section. Existing users may log in, and new ones can sign up for the service [3].

In the lengthy history of chatbots, Elizabot is among the first notable examples. It was created in 1966 [9] at the MIT Laboratory with the aim of demonstrating the feasibility of using natural language dialogue between people and computers to provide Rogerian psychotherapy. In Rogerian psychotherapy, rather than focusing on having a dialogue with the patient, the emphasis is on increasing the patient's speaking time. Individualized inquiries offered by Elizabot are

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designed to encourage the patient to carry on a dialogue. When a patient calls, the system employs rule-based procedures and a script to react by matching keywords against pre-defined templates and determining the appropriate context for the query. When an acceptable template is found, the model chooses the best replies to go with it. If more than one template exists, one will be chosen at random. Thereafter the model performs a series of reflections on the string in order to produce a more suitable answer format. Many individuals may be persuaded by Elizabet, and she has helped in the treatment of patients with mental health concerns. However, Eliza was unable to replace the human therapist experience. The challenge with Elizabet is maintaining dialogue. Additionally, Eliza is unable to acquire new linguistic patterns or phrases, develop social context-finding and reasoning skills, or even understand the meaning of new information.10].

The Service, commercial, entertainment, and advisory chatbots are the four broad categories into which chatbot applications fall [7]. To better assist consumers, service chatbots are built to do just that: assist. For instance, rather of replying to emails or picking up the phone, a logistics company may instead use an instant messaging channel to answer inquiries regarding shipments and send copies of dispatch paperwork. For businesses, a chatbot's primary function is to help consumers with their shopping experiences. A pizza delivery service, for instance, may use a message interface to accept orders and announce discounts. Chatbots geared at the entertainment industry aim to keep users interested in their favourite teams, musicians, films, and other media. The site lets users place wagers, provides information on forthcoming events, and advertises discounted ticket prices. Advisor chatbots are programmed to provide assistance in the form of advice, recommendations, service, and product upkeep and repair. These chatbots may reach out to users and provide timely assistance and guidance.

III. Proposed Architecture

To develop an event management service based on the web application to provide assistance to customers for event organizations with smart features like recommendation systems and chatbots using artificial intelligence

IV. Result Analysis

The purpose of acquiring data linked to the

performance of the system in a desired environment or the scenario of its execution is the goal of the performance evaluation of the system. Flutter was utilised for the development of the Evecurate mobile app, while the VS Code code editor was used for the coding. During the development process, the application was tested using an Android emulator with the debug mode enabled. After only a portion of the software had been produced, it was tested on several mobile devices. The app included a design that was adaptable to accommodate a variety of screen sizes. The overall performance of the application was rated as satisfactory, and it accomplished all of its objectives in a timely manner. The application was programmed using loaders and a number of exception error displays, which were designed to appear if an error occurred. 1. A quantitative analysis reveals that Evecurate is a hybrid mobile application that also features a user-friendly interface. Flutter SDK was used in its development. This application is a code-based application that can be deployed as either an iOS application or an Android application. In addition, Evecurate incorporates QR technology and instant messaging technology into the application itself. The Evecurate platform is one that encourages user participation. Using this programme, a host of an event can administer live polls as well as live quizzes. Reviewing the event and providing feedback on it are also options available to the audience. The attendees will be able to engage in quizzes, polls, and submit feedback if they scan the QR code that was created for the event. Additionally, they will receive the guest list for the event. When an event audience member registers for an event using Evecurate, a one-of-a-kind QR code is created for use as the event ticket. This is done since security is regarded as one of the most critical aspects of our programme. After scanning the ticket for admission verification, the host of the event will be presented with the guest list of people who are attending the event. The vast majority of the additional event management software does not incorporate a QR technology into its design, and there are not many programmes on the market that offer live polling and quizzing as part of their feature set. 2. Comparative Analysis The vast majority of event management programmes developed are intended for use in commercial settings, whereas our solution is primarily geared towards use in academic settings such as universities and colleges. The other application for

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event management contains either a fixed event planner or a straightforward suggestion system for event vendors that can filter out irrelevant options. Evecurate's programme includes a task planner, a budget planner, and, as part of planned future additions, a recommendation system for event vendors.

In comparison to other event management applications available on the Google Play market, Evecurate provides a superior level of performance. When compared to the size of other programmes, this one had a smaller footprint, yet it still managed to pack in all of the standard and supplemental functions those other apps provided. The performance of Evecurate was evaluated on a variety of mobile devices and was found to be nearly identical regardless of the amount of RAM or the processing speed of the device. As a mobile application that is compatible with several platforms, Evecurate may also be launched in iOS mobiles using the same code base. This significantly cuts down on the amount of time needed to develop the programme for other operating systems.

Future Enhancement

The possibility of future additions to the system, such as the addition of capabilities such as chatting, video call conferencing, and live map locations, would further distinguish this programme from those of its rivals. The following potential upgrades provide a synopsis of the features that can be included in the present mobile application through the addition of the aforementioned features.

- **Live Chatting:** Conversation at the breaks between activities encourages greater participation from the students and a more animated atmosphere by allowing each person to contribute their own ideas and perspectives.
- **Video Conferencing:** This feature is most helpful in situations in which the person organising or attending the event is unable to access the location physically. It enables them to feel as though they are still a part of the gathering.
- **Live Map:** Users are able to pinpoint the location of the event through the use of the Live Map function, and through the use of GPS, accurate directions may be updated, making it much simpler to find the location where the event is being hosted.
- **Face Recognition:** This functionality can be used for the registration process for an even more secure check-in, in which the face of the audience member is scanned during the registration process, and then the face is verified on the day of the event.

V. Conclusion

As part of this project, we have developed an event management service that is based on a web application. The goal of this service is to provide assistance to customers who are organizing events by utilizing artificial intelligence to power intelligent features such as recommendation systems and chatbots. It would be really helpful if there was a forum for online event management that clients could use to schedule and organize their events. People will be able to identify and compare the finest available services in their immediate area with the assistance of this platform. A recommendation system and a chatbot that make use of artificial intelligence and machine learning are also included in this platform. These features are geared at improving client happiness.

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References

- M. Mahalakshmi, S. Gomathi and, S. Krithika, "Event Management System", Volume 3(2), Mar - Apr 2016.
- Assistant Prof. Khalil Pinjari and Khan Nur, "Smart Event Management System", Department of Information Technology Theem College of Engineering Mumbai University, India. IJCSST - Volume 4 Issue 2, Mar - Apr 2016
- Iqbal, Z., Khan, M.A., Sharif, M., Shah, J.H., Rehman, M.H., & Javed, K. (2018). An automated detection and classification of citrus plant diseases using image processing techniques: A review. *Comput. Electron. Agric.*, 153, 12-32.
- S. Boukhary and E. Colmenares, "A Clean Approach to Flutter Development through the Flutter Clean Architecture Package," 2019 International Conference on Computational Science and Computational Intelligence (CSCI), Las Vegas, NV, USA, 2019.
- A. R. Khan, O. H. Alatiyyah and K. A. Aljadaan, "A Service Oriented Architecture based Comprehensive Smart Calendar for scheduling and managing realtime events," 2018 21st Saudi Computer Society National Computer Conference (NCC), Riyadh, Saudi Arabia, 2018.
- C.M. Pinto and C. Coutinho, "From Native to Crossplatform Hybrid Development," 2018 International Conference on Intelligent Systems (IS), Funchal, Portugal, 2018.
- K. Shah, H. Sinha and P. Mishra, "Analysis of CrossPlatform Mobile App Development Tools," 2019 IEEE 5th International Conference for Convergence in Technology (I2CT), Bombay, India, 2019.
- Y. P. Wibisono, C. Hetty Primasari and A. Kesuma, "e-Vent: Support System for Event Registration," 2019 2nd International Conference on Applied Information Technology and Innovation (ICAITI), Denpasar, Indonesia, 2019.
- G. W. Wiriasto, R. W. S. Aji and D. F. Budiman, "Design and Development of Attendance System Application Using Android-Based Flutter," 2020 Third International Conference on Vocational Education and Electrical Engineering (ICVEE), Surabaya, Indonesia, 2020.

