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School of Engineering and Technology (SOET)

MINI PROJECT REPORT

Project Title:

EventEase – AI-Based Event Planner Recommender

Course Code: ENSI152
Subject: Minor Project

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Introduction

Planning an event, whether it's a wedding, birthday, or corporate gathering, can be overwhelming. It often involves searching for the right vendors, comparing prices, and finding someone who can meet specific needs.

EventEase was developed to address these challenges by offering a centralized platform where users can easily find event planners that suit their needs. The platform uses artificial intelligence to personalize recommendations based on the user's location, event type, and budget, helping users make informed decisions quickly and efficiently.

Problem Statement

The process of finding the right event planner can be time-consuming and stressful. Users often have to sift through various websites and resources to find planners that match their event needs, budget, and location. This fragmented approach leads to wasted time and frustration. There is a need for a unified platform that allows users to enter specific preferences (like event type, budget, and location) and receive tailored recommendations of event planners who fit those criteria.

EventEase solves this problem by offering a simple and effective solution that allows users to input their preferences and instantly receive a list of recommended event planners. This AI-driven approach not only saves time but also ensures that users can find the best match for their events.

Objectives of the Project

The key objectives of **EventEase** are:

- **Create an intuitive platform**: Simplify the event planning process by offering a user-friendly interface where users can find, compare, and choose event planners.

- **AI-driven recommendations**: Provide personalized event planner suggestions based on factors like budget, location, and event type.

- **Enhance user experience**: Offer a seamless, hassle-free way to find the right event planner for various events such as weddings, birthdays, and corporate events.

- **Provide detailed event planner information**: Ensure users can view planner profiles, services, pricing, and reviews to make informed decisions.

Scope of the Project

The scope of **EventEase** is as follows:

- **Event Categories**: The platform will cover major event types such as weddings, birthdays, and corporate events.

- **User Preferences**: Users will input details such as location, event type, and budget range to receive tailored event planner recommendations.

- **Personalized AI Recommendations**: The platform uses AI algorithms to analyze user preferences and match them with event planners who best meet those needs.

- **Geographic Coverage**: Initially, the platform will cater to local events but has the potential to expand to a wider range of geographic areas in the future.

System Design & Architecture

EventEase is built on a scalable and modular architecture designed to separate concerns between user interaction, AI processing, and data storage.

- **Front-End**: Built using HTML, CSS, JavaScript, and React to create a dynamic, responsive, and interactive user interface.
- **Back-End**: **Javascript** is used for handling server-side logic, managing user requests, and implementing the AI-based recommendation system.
  Database: Instead of querying a database, the application uses in-memory JavaScript arrays to store and filter event planner data dynamically based on user input
- **AI Integration**: Machine learning algorithms are implemented to process user inputs (event type, location, budget) and recommend the best event planners.

System Architecture Diagram:

- **User Interface (UI)** interacts with the **Back-End** to fetch data and display results.
- **AI Engine** processes user preferences to generate personalized recommendations.
- **Database** stores all relevant information, including event planner profiles, user preferences, and planner reviews.

AI Integration and Features

The core feature of **EventEase** is the AI-powered recommendation system. Here's how it works:

- **User Input**: Users provide event type (wedding, birthday, corporate), location, and budget range.
- **AI Processing**: The AI system analyzes these inputs along with a database of event planners and their offerings (services, pricing, reviews).
- **Recommendation Generation**: Based on the analysis, the AI suggests a list of event planners who fit the user's needs and budget.

The **AI-driven recommendation engine** ensures that the suggestions are highly relevant, saving users time and helping them make more informed decisions.

Front-End Design

The front-end design of **EventEase** focuses on simplicity and ease of use. Key features include:

- **Home Page**: Displays a search bar for entering event type, location, and budget.
- **Planner Search Results**: Lists event planners who match the user's criteria, with filters for more refined results.
- **Planner Profile**: Each planner's profile includes a description of their services, pricing, location, and customer reviews.
- **Recommendation Results**: After entering preferences, users are shown a list of event planners that best fit their needs.

Implementation Details

The development of **EventEase** followed several key stages:

- **Planning & Requirement Analysis**: Gathering information about user needs and designing the platform's features, including the AI recommendation system.
- **AI System Development**: Developing algorithms to process user inputs and generate personalized planner recommendations.
- **Testing**: Testing the platform's functionality, UI/UX, and the accuracy of AI recommendations.
- **Deployment**: Launching the platform for public access.

Challenges included ensuring the AI system provided accurate and relevant recommendations based on diverse user preferences and handling the scalability of the platform.

Testing and Evaluation

Testing Methods (Planned):

• **Functional Testing:** Will be conducted to ensure that all platform features, including planner search, filtering, and AI recommendations, function correctly.
• **Usability Testing:** Planned to gather feedback from users on the platform's design, user experience, and ease of use.
• **AI Performance Testing:** The AI recommendation logic will be evaluated for accuracy and relevance based on user inputs.

Expected Results (To Be Evaluated):

• The system is designed to offer a user-friendly interface with intuitive navigation.
• The AI is expected to recommend relevant event planners based on user-defined criteria like location, budget, and event type, thereby assisting users in making informed choices.

Conclusion

EventEase has successfully addressed the need for an easy-to-use platform that streamlines the event planning process. By offering personalized AI-driven recommendations, the platform simplifies the process of finding the best event planners for weddings, birthdays, and corporate events.

The platform's ability to match users with planners based on their specific needs and budget ensures that users can make informed decisions efficiently.

Future Scope

While **EventEase** already provides a powerful platform for finding event planners using AI-driven recommendations, there are several directions for expanding its functionality and reach in future versions:

1. **Advanced AI Integration**: The current recommendation engine filters planners based on basic input like event type, location, and budget. In the future, we aim to incorporate machine learning models that analyze user behavior, preferences, and past searches to offer more intelligent and context-aware suggestions. Natural Language Processing (NLP) could also be used to allow users to type preferences in plain language.
2. **User Accounts and Planner Profiles**: A login and registration system can be introduced so that users can save their preferences, view booking history, and mark favorite planners. Event planners can also have dedicated dashboards to manage their profiles, update service details, and interact with potential clients.
3. **Mobile Application**: As mobile users make up a large share of digital traffic, developing an Android and iOS app for **EventEase** would greatly increase accessibility. The mobile version can include features like push notifications, GPS-based planner recommendations, and one-tap booking.
4. **Real-time Chat and Support**: To improve user engagement and assistance, a live chat system can be integrated, allowing users to directly contact event planners or get AI-powered chatbot support for common queries.
5. **Payment and Booking Integration**: Users could be allowed to book and pay for services directly through the platform. This would involve integrating

secure payment gateways (like Razorpay, Stripe, or PayPal) and providing automated invoice generation and confirmation systems.

6. **Reviews and Ratings System**: A more robust feedback system can be added where users leave detailed reviews, upload event photos, and rate planners on multiple factors such as punctuality, service quality, professionalism, and value for money.
7. **Multi-city Expansion and Multilingual Support**: The platform can be expanded to support more cities and regions across the country, along with multilingual interfaces so users can interact in their preferred language, increasing accessibility across different demographics.
8. **Admin Panel**: A dedicated admin dashboard can be implemented to monitor user activity, approve planner listings, resolve disputes, and ensure platform quality standards.

By pursuing these enhancements, **EventEase** can evolve from a recommendation platform into a comprehensive event planning ecosystem. This future roadmap not only ensures long-term scalability and monetization but also enhances user trust, satisfaction, and convenience.