AI-ML PROJECT

Selected problem statement: 11---

Design a travel planning and booking chatbot that can recommend destinations, flights, hotels, and activities based on user preferences.

ABSTRACT:

This study explores the design and implementation of an advanced travel planning and booking chatbot that offers tailored recommendations for destinations, flights, hotels, and activities based on user-specific preferences. The chatbot is engineered to streamline the complex process of travel planning by analyzing user inputs such as budget constraints, preferred travel dates, interests (e.g., adventure, cultural experiences, relaxation), and historical travel behavior. It provides personalized destination suggestions, leveraging data on seasonal trends, local events, and user interests to enhance relevance and satisfaction.

The chatbot's functionality extends to real-time flight and accommodation searches, allowing users to compare prices, availability, and options across multiple providers. Users can book directly through the chatbot, with features such as price alerts and flexible date recommendations to optimize their travel arrangements. Additionally, the chatbot integrates user-generated content, such as reviews and ratings, to assist in making informed decisions about accommodations and activities.

By incorporating these features, the chatbot not only simplifies the travel planning process but also enhances user engagement and satisfaction through personalized and context-aware suggestions. This paper details the underlying algorithms, user interface design, and integration with external APIs that enable the chatbot to deliver a seamless and comprehensive travel planning experience. The research highlights the potential of AI-driven tools in transforming the travel industry by offering a more efficient, user-centric approach to planning and booking travel.

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