Holy Pilgrimage Trip E-Guider Using A*Algorithm

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Abstract - **The one of the rapidly growing industries in the world is tourism and tourist guide. And most of the people in our Thanjavur and surrounding districts are more devotional and they have a strong belief in God. To establish their affection towards God they used to go holy pilgrimage as solo or with their family. For that purpose, their ultimate goal is to choose the right pathway to reach their destination. For that purpose, we are providing a holy pilgrimage e- guide which will be helpful to the user throughout the trip. Our website will work as a e-guide and helps the user to travel the destination with the shortest path using A* Algorithm. The user can choose their destination, able to check the temple /church /mosque with the able to see the history and location of devotional places. The user can find nearby cabs and restaurants. This holy pilgrimage e-guider will be a best guide for the users to travel their destination with less time complexity. On their travel they might need to check nearby places and secure for their family members.**

Keywords: E-Guider, Website, A* algorithm, Geographical map, Pilgrimage

INTRODUCTION

Web development, also known as website development, refers to the tasks associated with creating, building, and maintaining websites and web applications that run online on a browser. It includes aspects such as web design, web publishing, web programming, and database management. It is the creation of an application that works over the internet i.e., websites. The word Web Development is made up of two words that is Web: It refers to websites, web pages or anything that works over the internet. Development: Building the application from scratch.

Web Development can be classified into two ways: Frontend Development:

The part of a website that the user interacts directly is termed as front end. It is also referred to as the 'client side' of the application. Backend Development: Backend is the server side of a website. It is the part of the website that users cannot see and interact. It is used to store and arrange data. For the front end we are using angular JS and it is a Typescript-based free and open-source web application framework led by the Angular Team at Google and by a community of individuals and corporations. It is also called as framework of dynamic web apps.

For styling and to make our webpage more responsive we are using bootstrap 5 it is the newest version of Bootstrap, which is the most popular CSS framework for creating responsive, mobile-first websites. To store and retrieve the details of the temples we are using Mongo DB.

Mongo DB is a source-available cross-platform document-oriented database program. Classified as a NoSQL database program, Mongo DB uses JSON-like documents with optional schemas. Mongo DB is developed by Mongo DB Inc. and licensed under the Server Side Public License. Mongo DB is more flexible and ensures high and diverse data availability,

A* ALGORITHM

To approximate the shortest path in real-life things, like- in maps, games wherever there are often several hindrances. We can take into account a 2nd Grid having many obstacles and that we begin from a supply cell (colored red) to succeed in towards a goal cell (colored green), In these situation the A* Algorithm is used.
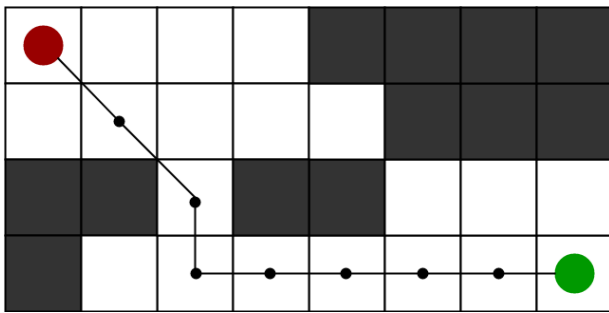
Figure. 1 Shortest path using A* Algorithm

A * algorithm is a searching algorithm that searches for the shortest path between the initial and the final state. It is used in various applications, such as maps. In maps the A* algorithm is used to calculate the shortest distance between the source (initial state) and the destination (final state). It is a handy algorithm that is often used for map traversal to find the shortest path to be taken.

I.   LITERATURE SURVEY

A. Gustavo Boza-Quispe, Paper presents a speech interface to extract domain-specific information from a tourism semantic website. In Raspberry Pi, an interface has the capability to recognize speech queries and give an oral response. With this interface, we reduce barriers of access to the semantic web for people without technical knowledge of Semantic Web.

B. Aw yokecheng, the aims of this research are to explore and examine the correlations and differences in terms of web browsing preferences among the locals (the Malaysians) and international web surfers. We categorized the travel and tourism websites into two namely Hotel websites; and other travel and tourist websites.

C. Ping Yin, Establishment of tourism information systems for self-drive travel is imperative. A TISDT was designed from the demand of users, system objective, system structure, database design, system functions, financial and management. The research discussed the implementation, operation and maintenance, the existence of the gap, and studies prospect such as achieving in the mobile network platform.

D. Rudy Aryanto, the purpose of this study is to examine the design of mountain tourism websites based on classical conditioning theory of persuasion. 70 respondents who have visited mountain tourism destinations participated in this study. The research has recommended the most effective customer interface design of destination web site based on 7 Cs Framework of user interface.

E. This paper expounds the implementation process of tourism culture management platform from the aspects of development technology overview, demand analysis, system architecture design, system implementation, etc. The core module of the system, namely the advertising management module, is designed and implemented in detail. It shows the functions of plan creation, material creation, data report, content package management, etc.

F. Recommendation uses components from tourist database, namely restaurant id, place id, hotel id, event id as item sets for performing apriori algorithm. The antecedents are matched with the last transaction of the logged in user and the precedents are displayed. This paper presents the tourism recommendation system which is built using the concept of web mashup.

G. This paper has an insight into Luoyang's urban image promotion strategy, and designs a local culture-featured urban tourism APP. It investigates local culture presentation strategies in an APP, findss APP information framework and designs interaction interface so that local culture takes interaction into account.

H. Tourism sector is in the mindset of a digital transformation, with a good part of its services evolving towards ICT and Internet supported versions. This article presents an analysis at the level of Web accessibility of 240 websites directly related to the tourism sector. TAW - Test de Acessibilidad Web evaluation tool.

II.   EXSITING SYSTEM

Existing system has the following points, [1] History of Temples. [2] Location of the devotional places. [3] Related picture of the temples. [4] Trips Planning pages. [5] Displays visiting time. [6] Booking system already available. [7] Availability of online service, Photo gallery, News and Events.
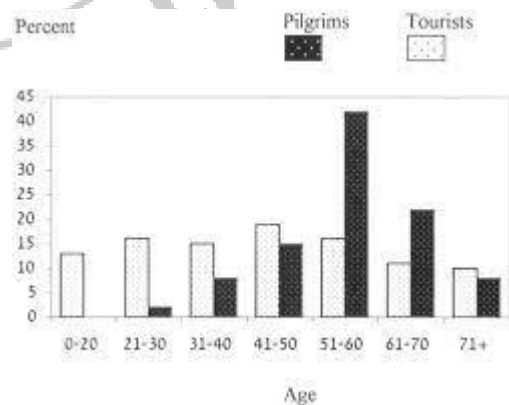

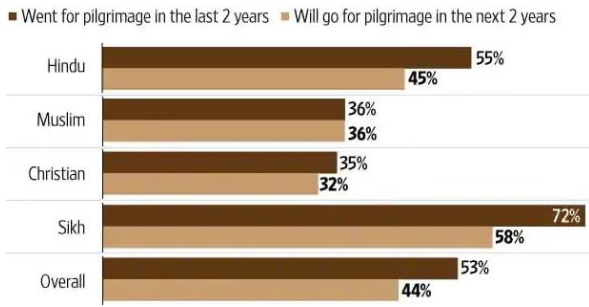**Figure. 2** Age category of people visits pilgrimage

Figure. 3 An analysis of Pilgrimages

III.   PROPOSED SYSTEM

In this proposed system, we include [1] User can easily find the shortest path to reach the devotional places. [2] All religious places in the Thanjavur district are displayed. [3] Categorization of temples, churches, mosques are going to be implemented. [4] Nearby cabs and restaurant details can be accessed by the users.

A.   SYSTEM ARCHITECTURE

User will interact with the website which is made by angular framework, bootstrap & mongo dB the user's request will be shared through the internet, and that request will be carried out to the server, the server will request and retrieve the data from the database and display the details to the user. The system will have interact with the user via internet. Here for the frontend we are using Angular JS and bootstrap for the user interface, then by using mongodb, express, and node js the data will be stored and retrived. The data will be stored in the form of unstructured way in the database. Here node js will be act as connector for the database and the frontend.
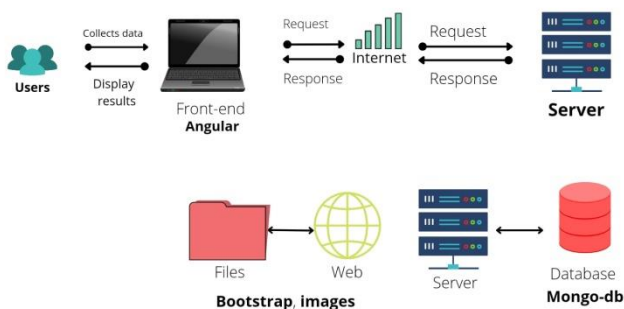

Fig. 3 System Architecture

B.   IMPLEMENTATION

LOGIN PAGE:

In this module, the user can log in by using their unique password. The login module verifies the user given username and password with the stored username and password in the Database. If the username and password is matched, the user can access the further page. If accessing match, the user does not allow accessing the further page.

PILGRIMAGE DASHBOARD:

In this module the pilgrimages category with the religious name like Hindu, Muslim, and Christians. Here each category will have a set of pilgrimages and will show the details and location of that respective pilgrimage.

PILGRIMAGES LIST:

In this module after linking any one of the categories the respective pilgrims will be shown with its image and address of that pilgrimage.

PILGRIMAGES DETAILS:

In this module the respective pilgrim's details like pilgrim name, History of pilgrim's, related picture of the pilgrim's, display the visiting time, booking system, availability of online service, photo gallery, news and events, with the nearby restaurant's suggestions.

PILGRIMAGES LOCATIONS:

In this module the geo location of the pilgrimage will be shown and the shortest path will be shown by using A* algorithm. Here the system uses map-box for showing the map and the nearby famous places will pin pointed automatically in that map itself.
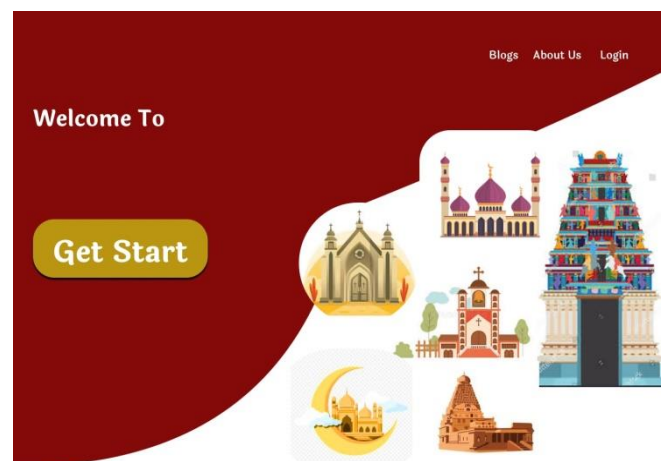

Figure. 4 Home page

Figure. 8 Mosque detail's page

Figure. 5 Login page

Figure. 6 Pilgrimage dashboard

Figure. 9 Temple details page

Figure. 10 Details & location page

Figure. 7 Church's details page

V.CONCLUSION

In recent times, the people affection towards god has been increased and to express their beliefs they used to travel for pilgrimage. For developing it as a website the user from any Device can easily access to the website and it was developed user friendly.

It helps the user to classify the pilgrimages with category and it will provide the details of each and every temples and the user can access the shortest location.

VI.FUTURE WORK

The websites will have a huge reach as well as easy to access. The future work of the system is we will enhance our site as a full finished online booking services for hotels nearby the pilgrimages and we will enhance the website by listing all the famous pilgrimages all over TamilNadu.

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