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Tourist e-Guide

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Abstract—This research paper is written for my idea on smart Tourism planning i.e. Tourist e-Guide. Now we are in the era of creative Technology where the mobile phone makes our work easy and fast. My idea is related to a system for providing Quality Tourism Information (QTI) and support for a Free Individual traveller to obtain localized information specific to a particular geographic area (e.g., few meters). It will be a tourist guide web page/app to help them as an e-guide.

This web page/app is not just interested in the location but also other elements of the user's context, such as buildings in view, attractions, and equipment nearby such as public telephones and toilets. In this web app, we provide the history of the location with audio/video. In this web page/app there is a feature for story sharing, Book bus tickets, flight-ticket, hotels, ola, uber, food service, etc. While developing a project on Tourist e-Guide beginners must use java as it follows oops principles. We will make an interface and graphics-based program using the facilities of Swing components.
This application will automatically suggest new tourist destinations according to user choice. This application will help in providing all related information such as before going to any tour tourist need to know the weather condition of their destination so that accordingly he/she will pack their bag all this information will be provided. With the help of the best API and this will be one of our main aims.

Keywords:

Keywords- e-guide mashup newsfeed API

INTRODUCTION

Nowadays, people's most precious thing is time and there is a demand easy, simple, fast-working interface so that they can do their work or fulfill his/her demand in minimum time so that. so, this idea will help them in planning a full tour or holiday in safe and in a very easily without taking much tension in this application we will take care for everything such as the estimated budget of vacation, ticket booking, hotels booking, and food, etc. In the past 10-20 years There has been an increase in the number of tourists. And we all know that tourists play a major role in foreign exchange. And to increase the number of tourist government provide many attractive offers and also government wants to make all paperwork like visa and passport work simply so that our country can attract a large number of foreign tourists.

Tourism is the important and biggest industry in the global economy world as I mentioned in the above paragraph also, it is generating an estimated 11% of the global gross domestic product (GDP) and employed 200 million people and served 700 million tourists worldwide in 2010, and this number was twice in the year 2019. According to The World Travel and Tourism Council calculated that tourism generated ₹16.91 lakh crore (US$240 billion) or 9.2% of India's GDP in 2018 and supported 42.673 million jobs, 8.1% of its total employment. The sector is predicted to grow at an annual rate of 6.9% to ₹32.05 lakh crore (US$450 billion) by 2028 (9.9% of GDP). And the most important tourists worldwide-a figure which is expected to twice by the year 2020. Meanwhile, there is greatly enriched travel information provided to the tourists on the Internet. However, a small problem is that tourists are not able to collect travel information timely Because this information is not present at one location it at different sides. when they are on the move. Therefore, we think we have the best chance to explore how to build a mobile tourist guide system based on mashup technology to solve this issue. With the help of GPS and maps user can get their location in one app/page they don't have to search their location at different apps like Google Maps and it has a feature of transport service we will not make transport app like ola and uber we will integrate their link with our application so on one click user will redirect to transport app like ola and uber, similarly, we will integrate food app like Zomato and Swiggy.

On the basis of user, location user will get location-related information or attractive spot for tourists near their location or their required service. Such if users want a hotel near their location, they will search for it and get related information. Users can also able to calculate the distance between their current location and their destination.

This application/ page will give information about tourist spots such as it will help the tourist to guide them as a virtual guide this app have features an audio/ video system which will provide information of the place such as who build that monument, when, why and related information whatever information is related with the place or location..

EASE OF USE

RELATED WORK:

- *Old Concept*

The Mobile travel guide system with three layers of web development architecture was developed to help travelers on their travel. The Global Positioning System (GPS) mobile phone provides a location-based travel guide application for indoor or Outdoor environments. Some work has been done on this project already. a similar idea was proposed by Sri Lanka's Travel department in 2014 so they can provide a good tour facility and can attract many more new tourists. So, this is not a new idea. And some student also tries this concept and, but it is not successful much because of market Planning or financial support and also it was because of interface design which was an old design like 1900's style design.

At the University of Lancaster, their multimedia research group had a project GUIDE which was investigated electronic tourist guides for there the city of Lancaster over a few years. Their approach was with using wireless communication to a pen-based tablet computer. This allows for an SVGA resolution display to support a traditional web browser style interface, which supplies good information and service to the user.

In The year 2003, a group of 4 students from the University of South Australia publish a research paper on the subject of Location-based tourist Guide Application their main focuses were on location and GPS (they used GPS to display the position of the user on the map).

In the year 2012, a group of five students published a research paper on smart Travel Guide: Application for Android Mobile. Their main aim to develop an android application that has features to find the location of the user, weather forecast, and search the location of the destination and calculate the distance between the destination and current location. They use mashup technology such as the Mashup server (geocoding widget, XSL stylesheet, translation software).

- *New Concept*

This application/ page is designed on the basis of new Technology And new Tools in this project we will use HTML, CSS, JavaScript language as a scripting language, Nodejs, Number of API's, ReactJS, MongoDB, firebase and etc. This is the tool that we will use in this project development.

Now let's see what are the new features that this project will have after the completion of project. Following are the new feature that this project content:-

- Virtual guide as audio or video to give information of the tourist spots such as when, why, and who.
- Easy budget calculation for the full tour.
- Transport, food, and hotel booking facility at a nearby place.
- Newsfeed for story sharing.
- Weather forecast

Tools and Technology Requirement

Mashup technology is used in this project such as mashup server which includes geocoding widget, xsl stylesheet, translation software. We will use HTML Geolocation API for the information of user geographical position. Geolocation is one of the most efficient for devices with GPS, like smartphone.
In this project use JavaScript mostly. We use reactJS, NodeJS and many other JavaScript technology. For styling we will use CSS, sass and etc. And for Markup language we will use HTML.

Architecture Diagram for Proposed method

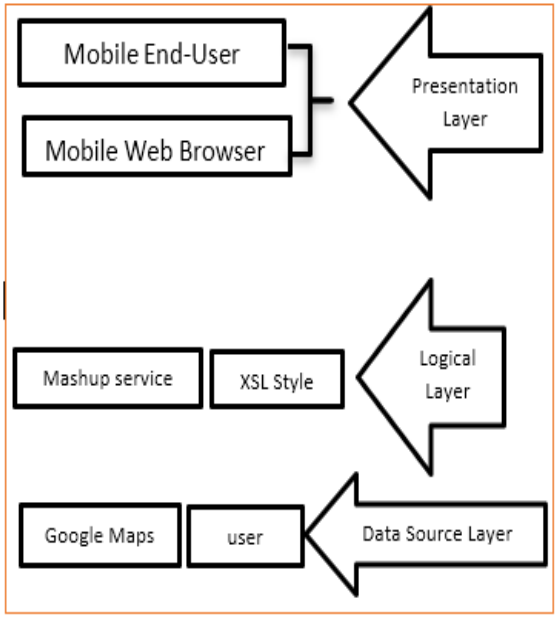


fig-1 System Architecture

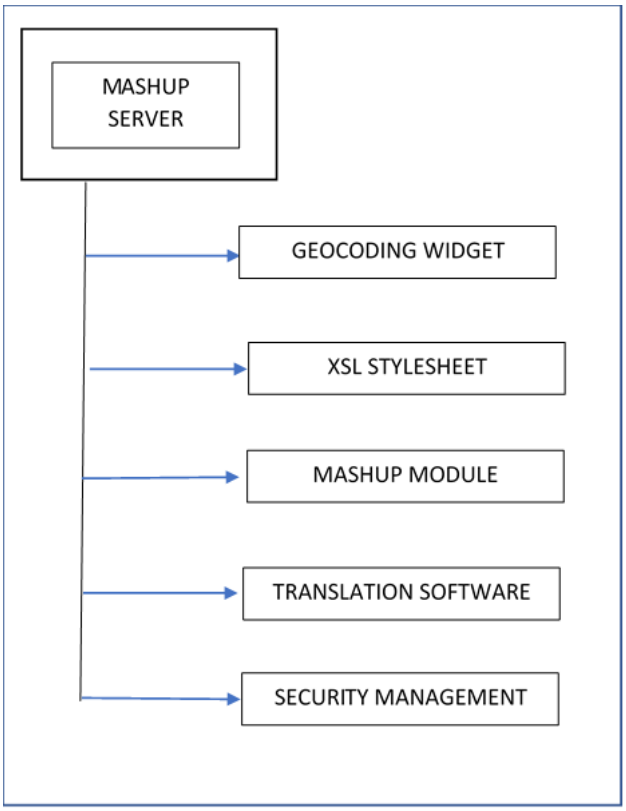


Fig:-2 Components of Mashup Server

The architecture of this system contains three layers:-

i) presentation layer
ii) logical layer
iii) Data Sources layer

The *presentation layer* provides the interaction between the end-users and the system.
The *logical layer* is the most important layer of the system. It deals with data and services from the data sources layer and the mobile end-users.
The *data sources layer* provides data, content, and service to be mashed-up by the open web APIs and databases. Currently, more and more websites provide API to developers and researchers.

Geocoding Widget converts end user's location information into latitude and longitude coordinates that Google Maps can identify and mark in the maps.
XSL Stylesheet the data or contents from data sources that are XML format need to be transformed into WML format by the XSL Stylesheet. Therefore, Mobile service providers can efficiently use existing resources to provide better services.
The translation software is designed to solve the language problems of domestic and foreign tourists.
Mashup module this component is the most important part of the mashup server. It determines what kind of services will provide to the mobile end-users.

The Working Of System

Here we see how working of the system or the flow of system First of user need to registered with the system and then provide some permissions which user can decide according to there choice and also asked for some information of user.

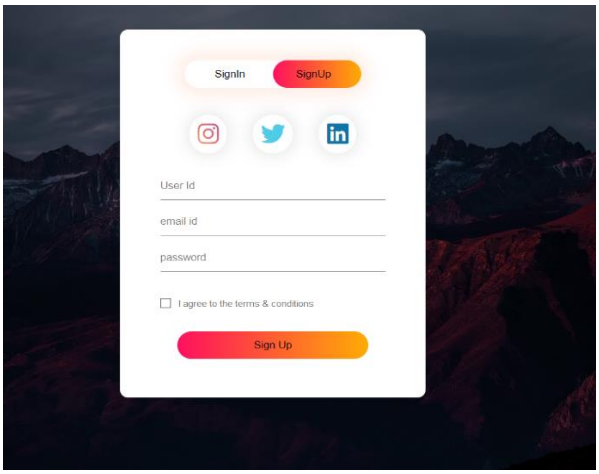


Fig:-3 login/signup page

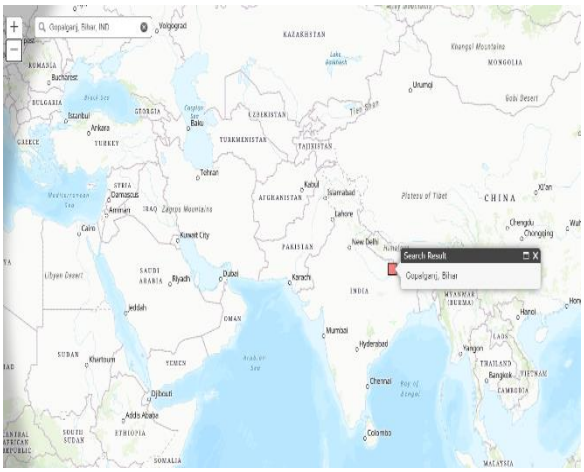


Fig:-5 Location On The Map

After logging successfully there their respective system user can request to the mashup server then according to user request mashup server will respond. And user will get the answer.

If user want to know the information about their current location then they user need to open the GPS then all the available service of that location will appear as a menu with photo and icon which will improve the user experience and make it easy to understand the UI.

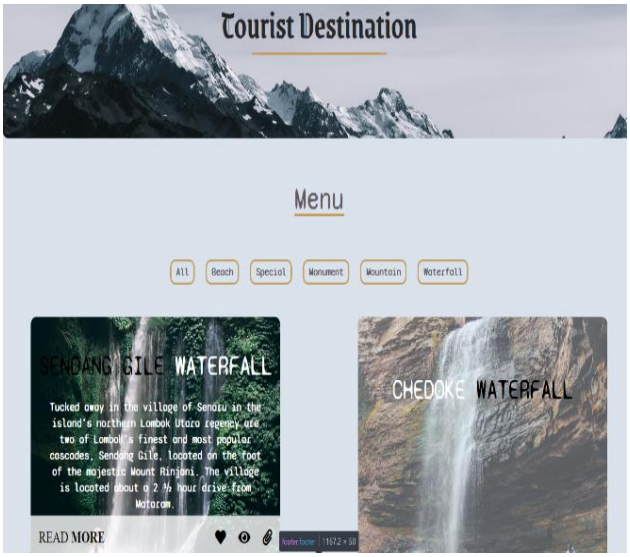


Fig:-4 Destination Page

During registration in the user will get the option of language selection that will help the user to make the Application/page according to user friendly this will we done by database and translation software according user preferences.

The Geocoding Widget on the mashup server first converts end user's location information into latitude and longitude coordinates that Google Maps can identify and mark in the maps.

Now the following fig show how the information travel one location to another location and to the database. This is the complete working flow of data in mashup server.

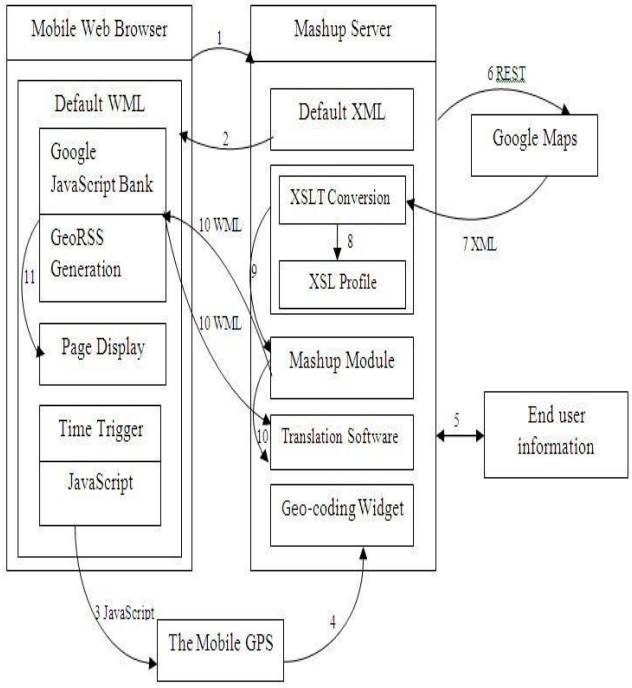


Fig:-6 Working Flow

Limitations and advantages

There is nothing in this world that comes with 100% pros, everything has some pros and cons it also has some cons, following are the limitations of this idea.

Limitations:-

- The user must have a smartphone.
- User must have internet connectivity.
- Due to small size, sometimes user clicks at inaccurate places.
- Slow and error-prone typing.

Advantages Of Our Program:-

- Make the process automatic
- Excellent Management
- Security
- One-Stop solution
- Save Money Save Time
- Easy
- User will we tension free
- Help in searching destination

Conclusion

Users can get detailed information about tourist attractions, hotels, places to eat, and shopping places in the city as desired by the user. Tourists also easily get detailed information about the tourist attractions so that tourists know the tourist attractions before arriving at the location. With the recommendations of nearby locations, travelers can also easily find their closest locations, so it saves them time. Tourist attraction information and directions with minimal GPS accuracy error 10 meters distance and maximum error 40 meters.

The speed of the application in determining the user position depends on strong network signal and the condition of the surroundings

References:

https://developers.arcgis.com/javascript/3/

https://en.wikipedia.org/wiki/Mashup_(web_application_hybrid)

https://en.wikipedia.org/wiki/Tourism_in_India#:~:text=The%20World%20Travel%20and%20Tourism,(9.9%25%20of%20GDP).

https://www.business-standard.com/article/pti-stories/tn-govt-launches-mobile-app-for-tourists-117011300960_1.html

https://www.researchgate.net/publication/221149762_Developing_a_Location_Based_Tourist_Guide_Application

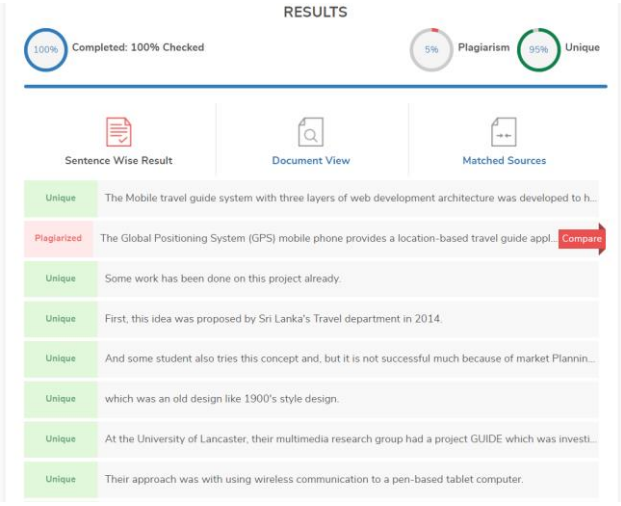
https://www.researchgate.net/publication/237085317_Handbook_for_Tour_Guides

https://ieeexplore.ieee.org/abstract/document/5690853

Conflicts of Interest: The authors declare no conflict of interest

ANEXURE III:

PLAGARISM REPORT:



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