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# **1. Problem Statement:**

## **1.1 Problem:**

Traditional tourism apps will just sell you a plan regarding the place you are visiting, your time is not your own during such a vacation as you will have set time you can visit certain places in a bid to visit other places that you will be guided to by the tourism agency guide. The challenge is to develop an app that will help you travel on your own terms, by assisting you in related things like what landmarks to visit, telling the general pricing of various amenities in the area etc.

## **1.2 Background:**

A lot of times for their forth coming vacations some people might rather prefer traveling on their own leisure to the places they want to tour and as such might need to conduct detailed research regarding the area in order to guarantee a safe and satisfying journey with little amount conventional roadblocks. However, such information is spread out all over the internet not mention or requires communication with locals. Adding the problem of live information or regularly fluctuating information on top of that, makes it a need that such a place exists to provide people with such information.

## **1.3 Relevance:**

The project displays its relevance in the fact that it will keep users up to date regarding various factors of their self-traveling journey with no assistance from tourism agencies for example., pricing of various amenities like hotel, travel etc., traffic in the places they are planning to visit in their travels etc.

# **2.Objective and Scope:**

## **2.1. Objective**

The objective of this project is to create a Tourism Recommendation App that will take various information from the user regarding the vacation and provide a customized plan for them which referring to which they may plan the journey for their travel. The recommended plan will include various information like pricing of the various main parts of the plan such hotel pricing, travel pricing etc., travel routes through google maps, etc. There will also be live reporting about some things like current traffic of routes, pricing etc.

## **2.2 Scope**

The scope of the project encompasses the development and implementation of recommendation algorithms that will tailor the plans and services provided by the app according to the details and interests provided by the users. Such tasks will include pricing, travel, etc related plan recommendations as well as details regarding hotels, eateries and other necessities. The Application will also include services to assist users during their execution of their selected traveling plan such live location of necessities nearby user.

# **3. Methodology**

* **Data Collection & Creation:** Procure data regarding tourism plans, pricing, places, cities etc., from the internet as well as creating it.
* **Machine Learning Model:** Develop a machine learning model which provides the best suiting recommendation to the user, incorporating various inputs developed during data collection and creation.
* **Recommendation Generation:** Utilize the model’s filtering algorithm to generate individualized plan recommendation for each user, incorporating the various details they provide such as their budget, place of travel, number of days, possible route etc.
* **User Interface**: Make a user-friendly and interactive interface that is intuitive to use and attractive to look at, it should be able to incorporate all planned functions in an organized and smooth manner.
* **Functionality:** The user interface will be implemented with required functionality after being planned and created.

# **4. Hardware and Software**

## **4.1 Hardware requirements:**

Computer: windows 10, 8GB Ram, 4GB space

Android device: 8GB Ram, API 33

## **4.2 Software Requirement:**

Android Studio

Java

Android Virtual Device or Emulator

XML for UI

Database (SQLite or Firebase)

Google Maps API

Version Control System (Git)

# **5. Resources and Limitations**

## **5.1 Resources:**

Programming languages, libraries etc suitable for making the project.

Access to diverse data that would either be existing data extracted from the internet or created data for dummy purposes.

Availability of hardware and software infrastructure.

Knowledge regarding different subjects in tourism.

## **5.2 Limitations:**

Recommendations are limited by accuracy & availability of data.

Recommendations might become out of date if political and economic changes happen between time of booking and time of departure.

May necessitate regular updates to evolve various components to meets changing standards.

# **6. Testing Methodology**

The testing methodology employed for this project is Manual Testing, utilizing White-Box Testing techniques.

**Testing Process:** The testing process encompasses the following steps:

* **Requirements Analysis:** Review and analysis of project documentation to identify testing objectives and requirements.
* **Test Case Developmen**t: Creation of test cases tailored to the identified objectives and requirements.
* **Manual Testing:** Execution of test cases through manual processes.
* **Bug Identification:** The process of identifying and documenting defects or issues encountered during manual testing.

**Completion Criteria:** The testing process is considered complete when all identified test cases have been executed, and no further defects or bugs are found.

# **7. Conclusion**

The “Tourism Recommendation Application” project endeavors to address the pressing issue of solitary unguided travel that may result from not choosing a tourism company to guide people on their travels. The Application provide individualized recommendations and active/live guidance by leveraging various factors and stored information from the database. The project holds significance towards the tourism industry in helping people by providing a gathered and centralized access for data and guidance.