



Android Smart City Traveler

Swaraj Dumber, Yash Suryawanshi

Final year students, Department of Computer Engineering, Marathwada Mitra Mandal's Polytechnic, Thergaon, Pune, Maharashtra, India..

Project Guide, Department of Computer Engineering, Marathwada Mitra Mandal's Polytechnic, Thergaon, Pune, Maharashtra, India..

ABSTRACT

Now a day's a mobile phone has become a necessary part of one's life. There is a continuous rise in the number of mobile computing applications, centered around people's daily life. In such applications, location dependent systems have been identified as an important application. Such application which presents the architecture and implementation of such a location is commonly known as Smart Travel Guide. This is a standalone application developed for android based smart phones and tablets. This android "Android Smart City Traveler" application is able to provide tourism information to the mobile users conveniently. The mobile application "Android Smart City Traveler" installed on tourist's mobile can act as a guide. The main objective of this application is providing tour guidance information to the traveler queried through an Internet map service such as Google Maps on the move. By Android Smart City Traveler app, users can obtain detailed information on attractions; including text. The features available in this app are: The selected places to visit, such as tourist attractions, restaurants, hotels can be viewed using Google maps. This app also provides the trackcity; find nearby places

INTRODUCTION

In present tourism system, a tourist appoints a guide to know more about the place whenever they visit famous spots. The hired guide narrates the history of the place. Now a day's a mobile phone has become a necessary part of one's life. There is a continuous rise in the number of mobile computing applications, centered around people's daily life. In such applications, location dependent systems have been identified as an important application. Such application which presents the architecture and implementation of such a location is commonly known as Smart Travel Guide. This is a standalone application developed for android based smart phones and tablets. This android "Android smart city traveler" application is able to provide tourism information to the mobile users conveniently.

LITERATURE REVIEW

The development of internet stimulates the emergence of various Online Tourism Agencies (OTA) to post their service information online [1]. One challenging problem of OTA is how to recommend appropriate travel routes for users with different requirements. The path planning of scenic tourism is a relatively new research field. Some recent research on the travel route planning has been carried out. Ying Xu, Tao Hu and Ying Li [2] proposed that a new Improved PRR algorithm (IPRR) based on the PRR by considering different personalized requirements in order to recommend high-quality travelling routes for customers. The IPRR algorithm takes various factors into account, including the user's personal preferences, user types, the real-time traffic condition of the tourism region (i.e. the real-time nodes and the number of people on the path), and the historical statistical data (i.e. historical tourists number at the spot). Graph search algorithms have often been adapted for both indoor and outdoor path planning [3]–[7]. In these applications, an operational terrain of a mobile agent (e.g. a vehicle, a mobile robot, etc.) is represented using a graph that consists of a set of nodes and a set of edges. A node represents a special location on the terrain surface and an edge represents the connection between two nodes. An edge is associated with one or more costs. For examples, the edge cost is a distance measurement when finding the shortest path and a time measurement when finding the fastest path. Early works on graph search algorithms are based on uniform cost search mechanisms. Dijkstra's algorithm [4] is a prime example for such uniform cost search algorithms. It starts a search process from a source node and iteratively selects a node for expansion until it selects a target node for expansion. Here, node selection is based on the cost between the source node and a given node without considering its remaining cost to the target node. Thus, in finding the shortest path, it expands all the nodes that are closer to the source node compared to the target node. Obviously, this results in excessive expansion of nodes that do not lie on the optimal path, thus, degrading the efficiency. The same techniques discussed for shortest path planning might not always be used to find the fastest path in outdoor environments due to the inability of mobile agents to travel at their peak speed everywhere in irregular terrains. Mobility maps are an effective way for dealing with such irregularities. In the paper proposed by Wanmai Yuan, Nuwan Ganganath, Chi-Tsun Cheng, Guo Qing, and Francis C.M. Lau [8], a grid-based mobility maps was introduced for representing speed limitations in outdoor terrains. Further, a heuristic approach for finding the fastest path on such maps was introduced. The proposed heuristic is proven to be both admissible and consistent. Therefore, it can be used with A*-like heuristic search algorithms for obtaining fastest paths

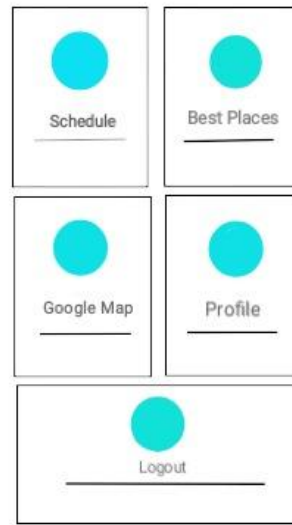
efficiently.

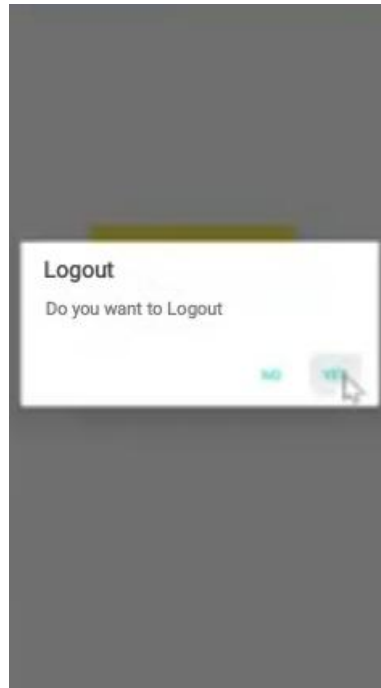
TECHNOLOGIES USED

- A. Hardware used – Laptop with Installed memory - 4 gb and more ram
System type – 64 bit OS
- B. Platform
 - 1. Android Phone
- C. Software Tools Used
 - Operating System: Windows 7 or above
 - IDE: Android Studi

SCREENSHOTS OF APPLICATION







Conclusion

- Since travelling is one of the important aspect today, it is very necessary that proper planning need to be done beforehand in terms of time management.
- Most people without using the latest technology waste a lot of time just planning trips.
- So, an application like Smart City Traveller
- really helps tourists to utilize their precious time to the fullest and also enjoy their trip at the same time.

REFERENCES AND BIBLIOGRAPHY

- [1] Global Market Share held by Smartphone Operating Systems (visited on Jan. 20, 2018), <https://www.statista.com/statistics/263453/global-market-share-held-by-smartphone-operating-systems/>.
- [2] Google Permissions for Android Application Development, (visited on Jan. 25, 2018) <https://console.cloud.google.com/apis/library?project=smarttraguide>
- [3] Google Maps APIs Current Location Tutorials, (visited on Jan. 30, 2018) <https://developers.google.com/maps/documentation/android-api/current-place-tutorial>
- [4] K. Trijani, "A Customizable Travel Application- Travel-It" TAMUCC, Graduate project, spring 2017
- [5] M. R. Shahade and P. D. Watkar, "SMART TRAVEL GUIDE: APPLICATION FOR MOBILE PHONE" International Journal of Research In Science and Engi- neering (IJRISE), Volume 1, Special Issue 1, 2015
- [6] OpenWeatherMap.org Access to API for Current Weather Data (visited on March. 01, 2018), <https://openweathermap.org/current>
- [7] S. Pamulapati, "iDoRemind: Location Based Reminder Application for Android"
- [8] TAMUCC, Graduate project, fall 2016
- [9] YouTube Data API Overview, <https://developers.google.com/youtube/v3/getting-started> (Visited on March 10, 2018)
- [10] Wikipedia.org the system (visited on Jan. 10, 2018), Information about Android (operating system) are Retrieved from: <https://en.wikipedia.org/wiki/Android>