Way Wise

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Abstract— This article underscores the pivotal role of Customer Relationship Management (CRM) in elevating customer satisfaction and loyalty within enterprises. By seamlessly integrating human resources, operational workflows, and specialized technology, CRM enables organizations to maximize customer satisfaction levels. A key component in this integration is the utilization of data mining technology, which plays a critical role in CRM implementation. The article introduces the concepts of CRM and data mining, particularly emphasizing their significance in the travel agency industry. It proposes a specialized framework for implementing CRM in travel agencies, specifically tailored to leverage data mining techniques. With a focus on enhancing customer relationship management, the article highlights the essential role of data mining technology in this sector. By leveraging insights extracted through data mining, travel agencies can optimize their CRM strategies, leading to improved customer satisfaction and loyalty. This integrated approach underscores the importance of leveraging technology to enhance customer experiences in the travel agency industry.

Keywords—   Android, Kotlin, java, firebase, XML .

I.   INTRODUCTION

China's tourism industry has grown significantly. According to National Statistics, there were 13,361 travel agencies at the end of 2003. On a larger scale, the industrial system and market size have expanded quickly, and the industrial space layout has continued to grow. At the micro level, however, profits are declining year after year despite an increase in the number of tourism-related businesses. Many travel agencies have used hostile competition tactics to compete for customers, grow market share, and maintain earnings. They have done this by lowering prices and breaking management rules. The management has responded by lowering food standards, cutting back on tourist attractions, shortening sightseeing times, and increasing the frequency of purchases. That

•   Motivation:- Personalization: Travel agencies aim to provide tailored experiences to their customers. Data mining helps in analyzing customer data to understand preferences, behavior, and interests, allowing for personalized recommendations and offers.

•   Customer Retention: Acquiring new customers is more expensive than retaining existing ones. Data mining can help identify factors influencing customer churn and implement strategies to retain valuable clients.

II.   SYSTEM OVERVIEW AND DESIGN

Personalized Recommendations: Develop recommendation systems that leverage data mining to offer customers tailored travel suggestions, including destinations, accommodations, and activities, leading to a more personalized travel experience.
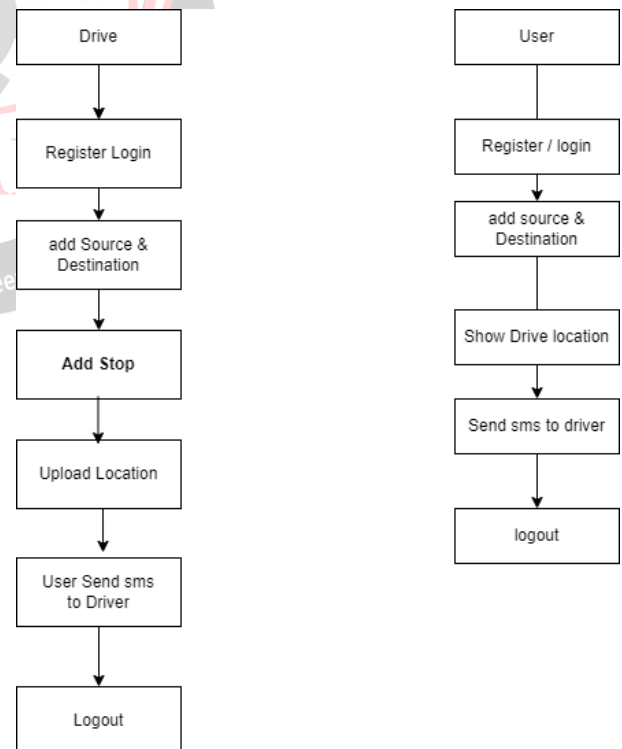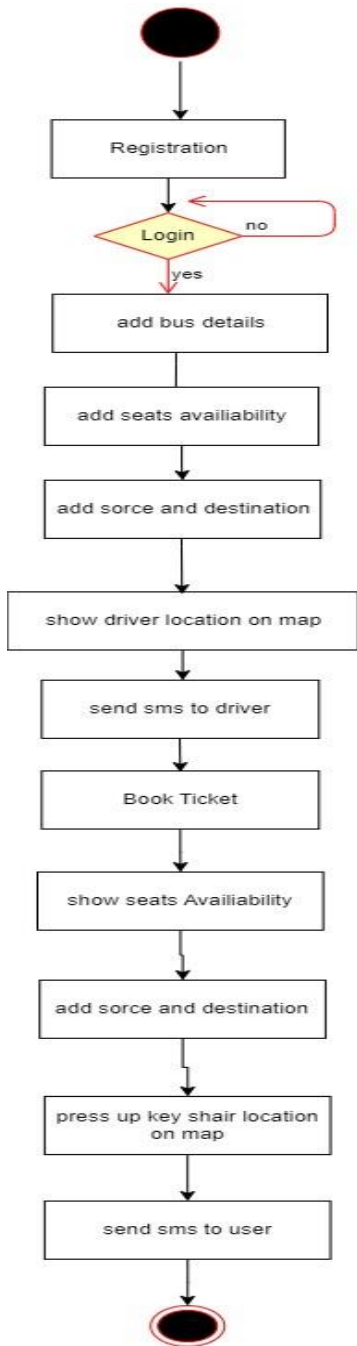

Figure 1: System Architecture 1
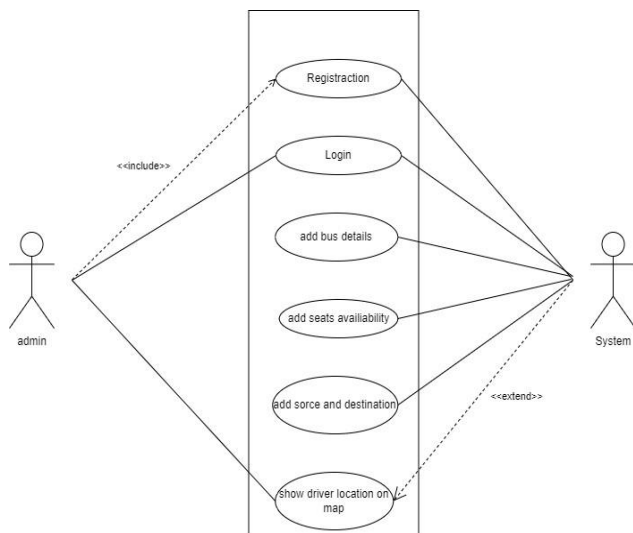
Figure 2: System Architecture 2

Figure 3: System Architecture 1

III.   METHODOLOGY

1) Requirement Analysis:

- Gather detailed requirements from stakeholders (users, admins, and drivers).
- Document functional and non-functional requirements.
- Identify user roles and their permissions (passengers, admins, and drivers).

2)System Design:

- Design the overall architecture of the system.
- Create wireframes or mockups to visualize the user interface.
- Design the database schema to store bus details, passenger information, reservations, etc.

3)Seat Selection Feature:

- Implement a feature allowing passengers to view available seats on selected buses.
- Enable passengers to select seats based on availability.
- Update seat status after a successful reservation.

4)Payment Integration:

- Integrate payment gateways for processing payments securely.
- Provide multiple payment options (credit/debit cards, digital wallets, etc.).
- Implement logic to handle payment confirmation and update reservation status.

5)Driver Communication:

- Enable drivers to add bus details including source, destination, departure time, etc.
- Implement a feature for drivers to receive notifications/messages in case of delays.
- Integrate messaging or calling functionality with appropriate APIs (SMS, VoIP).

6)Maintenance and Support:

- Provide ongoing maintenance and support to address bugs and issues.
- Regularly update the system to incorporate new features and enhancements.

RESULTS

This application is designed for bus and passenger. In this application driver will share bus location from where bus will depart and arrive.

Admin can handle the all bus details and user details.

Admin will connect to passenger to bus driver.

Passenger have functionality to book their seat, if the passenger is going to be late, he/she can inform the driver by calling or messaging.
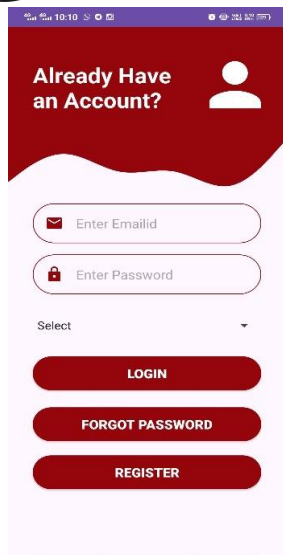
Registration/Login

Admin

Driver Details

Passenger

IV. CONCLUSION

In conclusion, a travel agency app provides a convenient and efficient way for travelers to plan, book, and manage their trips. It offers a wide range of services, from booking flights and accommodations to exploring destinations and accessing important travel information. These apps enhance the overall travel experience, making it easier for users to explore the world and create memorable journeys.

REFERENCES

[1] Sarah Aimi Saad , Amirah 'Aisha Badrul Hisham , Mohamad Hafis Izran Ishak , Mohd Husaini Mohd Fauzi , Muhammad Ariff Baharudin , Nurul Hawani Idris "Real-time on-Campus Public Transportation Monitoring System " IEEE 14th International Colloquium on Signal Processing & its Applications (CSPA 2018), 9 -10 March 2018

[2] Darshan Ingle, Dr. A. B. Bagwan " Real-Time Analysis and Simulation of Efficient Bus Monitoring System" 2nd International conference on Electronics, Communication and Aerospace Technology (ICECA 2018)

[3] Manini Kumbhar, Meghana Survase, Pratibha Mastud, Avdhut Salunke " Real Time Web Based Bus Tracking System" IRJETInternational Research Journal of Engineering and Technology , Volume: 03| Issue: 02 | Feb-2016

[4] Nusrath Jahan, Kamal Hossen and Muhammad Kamrul, Hossain Patwary "Implementation of a Vehicle Tracking System using Smartphone and SMS service" 2017 4th International Conference on Advances in Electrical Engineering (ICAEE) 28-30 September.

[5] Jerrin George James, Sreekumar Nair "Efficient, Real-time Tracking of Public Transport, Using LoRaWAN and RF Transceivers" Proc. of the 2017 IEEE Region 10 Conference (TENCON), Malaysia, November 5-8, 2017.

[6] Leeza Singla, Dr. Parteek Bhatia "GPS Based Bus Tracking System" IEEE International Conference on Computer, Communication and Control (IC4-2015).

[7] Supriya Sinha, Pooja Sahu, Monika Zade, Roshni Jambhulkar, Prof. Shrikant V. Sonekar "Real-Time Analysis and Simulation of Efficient Bus Monitoring System" 2nd International conference on Electronics, Communication and Aerospace Technology (ICECA `````````` 2018)