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Development of Garbage Alert Service with SMS Intimation

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ABSTRACT:

The goal of this project is to create Garbage Alert Service with SMS Intimation is mobile based application developed by using the latest technology Java with XML as a front-end and SQL Lite as Back-end. Garbage monitoring system is a very innovative system which will help to keep the cities clean. Garbage cleaning project is an innovative step towards making this process smoother and more efficient. The main objective of this project is a helps to society people intimate garbage collection alert information to government authorities. Using Mobile application initially admin will feed all the authorities which mean driver information such as authority's name, in charge location, phone no, etc. these all the details will maintain separate table for sent intimation. Users can be registering this garbage cleaning services Application. After completing the registration Process user will login and post garbage cleaning request. The user can able to view all the driver details through app and user can request this approach through this mobile app this request goes to garbage cleaning admin will forward request to driver along with location. This application is user friendly application the admin and user can communicate easily through this application. This is more effective. This system has been developed with an intention to make the system user-friendly. The system has been developed with advanced features.

Keywords: Job Alert, SMS Alert, Android Applications, Garbage collection

1. INTRODUCTION

1.1 OVERVIEW OF THE PROJECT

The Garbage Monitoring System is an innovative solution designed to keep cities clean by streamlining the garbage collection process. This system enhances efficiency by providing real-time alerts and communication between users, admin and garbage collection drivers through a mobile application. The main objective of this project helps to society people intimate garbage collection alert information to government authorities. Using Android Smart Phone. Initially admin will feeds all the authorities information such as authorities name, in charge location, phone no, etc. these all the details will maintain separate table for sent intimation. users can be register this garbage cleaning servicer's Application.

Efficient Communication: Users can request garbage collection through the app based on location request goes to garbage collection drivers.

- **Real-time Notifications**: Sends alerts to authorities and drivers about garbage collection requests.
- **User-Friendly Interface**: Enables seamless interaction between users, admins, and drivers.
- **Advanced Features**: Uses mobile technology to ensure smooth and systematic waste management.

2. SYSTEM STUDY

2.1 EXISTING SYSTEM

In present system user want to post any garbage cleaning message means they have to go directly to the municipality. It takes lot of time for clean garbage. There are chances for errors and also updating of data is difficult. Sometime through phone call only can get clean and processing information, but it does not provide complete information. Another important drawback of existing system is time factor. It will not help the user to provide the information in time. Some time may be failed to solve the post request proper time interval this proposed increase the gap between municipality and user.

DISADVANTAGES

- Time consuming process
- Delay in knowing status of the complete garbage area information.

- Not a user-Friendly process
- User didn't convey the proper message

2.2 PROPOSED SYSTEM

The drawbacks, which are faced during existing system, can be eradicated by using the web application. The main objective of the proposed system is to provide a user-friendly application for user to post request and complaint. The intention of this project is to minimize the manual visiting interaction. This project is aimed at develop is to minimize the manual process, without making them to take long time effectively allows user to get complete multiple garbage cleaning services through mobile application. The user can able to view all the information details through app and user can post request this approach through this app this request goes to garbage cleaning servicer's effectively after that they can communicate easily.

ADVANTAGES

- User friendly application
- Provides fast and reliable system to send request through web application.
- Large volumes of data can be stored with ease.
- Fast Communication.
- Less Time-consuming process

3. SOFTWARE USED

The software used for the development includes Windows as the operating system, providing a stable and user-friendly environment for coding and testing. The application is developed using Java, a versatile and object-oriented programming language known for its platform independence and wide use in Android development. For the backend, SQLite is utilized—a lightweight, embedded database engine ideal for local data storage in mobile applications. The entire development process is carried out in Android Studio, the official IDE for Android development, offering a comprehensive set of tools for designing, coding, debugging, and deploying Android apps efficiently.

4. SYSTEM DESIGN

4.1 MODULE DESCRIPTION

This module is the major module to maintain over all the process in this application. Using this module admin can login into this application by using the secure username and password. Admin have only authority to add, modify, search, and delete of employee and garbage details records in the database. In this register module fully helps to user to register through mobile application. This module helps users to register them with the mobile application. Registration is mandatory. This mobile application provides security features through username-password. This proposed application automatically gets live location of user using GPS service and GPS navigation process. This module completely for employee they can login this mobile application and can view request of user. After that they can give confirmation and reply to user. User will receive garbage service confirmation alert effectively.

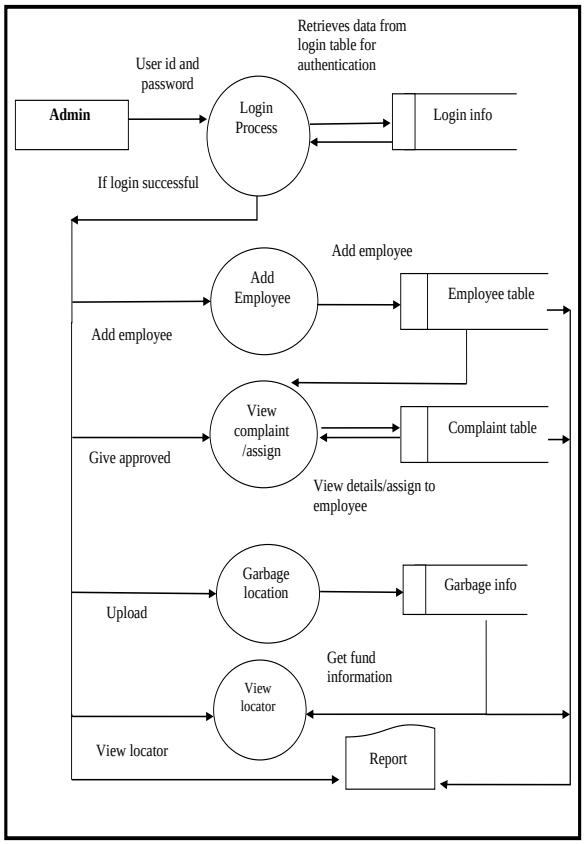

Figure 1: Data flow diagram

4.1.1 AUTHENTICATION

This module is the major module to maintain over all the process in this application. Using this module admin can login into this application by using the secure username and password. Admin have only authority to add, modify, search, and delete of employee and garbage details records in the database.

4.1.2 ADD DRIVER DETAILS

In this module admin have login this application using their username and password. After successful login admin add the driver details. Such as name, contact, Location (area), email id etc.

4.1.3 USER ENROLLMENT / AUTHENTICATION

In this register module fully helps to user to register through mobile application. This module helps users to register them with the mobile application. Registration is mandatory. This mobile application provides security features through username-password. User can login into this mobile application based on the role page will navigate.

4.1.4 GPS LOCATION FINDING

This module helps to Allows fetch location from the GPS receiver or from the network-based location services. This module is used to the GPS use find the person location tracked by satellite and that time collect data and in to the unit. The GPS location finder Person tracking unit has a wireless modem inside the Android Smartphone's. This modem is used to communicate with Global Tracking's systems. The GPS data is sent directly from the person's data to our servers

4.1.5GARBAGE SERVICE ASSISTANCE REQUEST

This module fully based for user. This proposed application automatically gets live location of user using GPS service and GPS navigation process. Whenever user click get service assistance button this system get location and sent request this request automatically goes to admin for conformation. Admin will forward this request to employee.

4.1.6 SERVICE CONFIRMATION

This module completely for employee they can login this mobile application and can view request of user. After that they can give confirmation and reply to user. User will receive garbage service confirmation alert effectively.

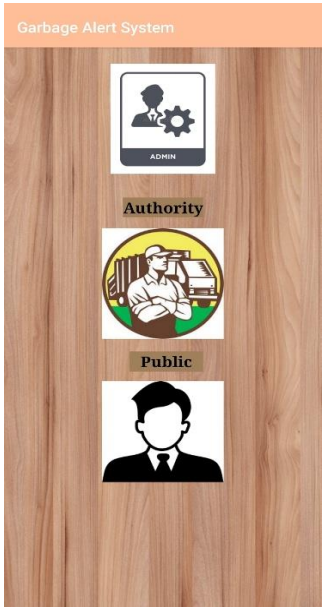

Figure 2: Application Main Page

Figure 3:Admin Module

5. CONCLUSION & FUTURE ENHANCEMENT

Implementation is the stage of the project when the theoretical design is turned out into a working system. Thus, it can be considered to be the most critical stage in achieving a successful new system and in giving the user, confidence that the new system will work and be effective. Proposed system initially admin will feed all the authorities which mean driver information Users can be registering this garbage cleaning services Application. After completing the registration Process user will login and post garbage cleaning request. The user can able to view all the driver details through app and the user can request this approach through this mobile app this request goes to garbage cleaning admin will forward request to driver along with location. This application is user friendly application the admin and user can communicate easily through this application. This is more effective. This system has been developed with an intention to make the system user-friendly. The system has been developed with advanced features. Proposed mobile application providing a robust, user-friendly solution for the mobile user. Every application has its own merits and demerits. The project has covered almost all the requirements. Further requirements and improvements can easily be done since the coding is mainly structured or modular in nature. Changing the existing modules or adding new modules can append improvements. In future we can develop this application with advanced features and upload in play store.

Figure 4: Add Garbage Details

Figure 5 : Authority Login

Figure 6 : Authority Main Page

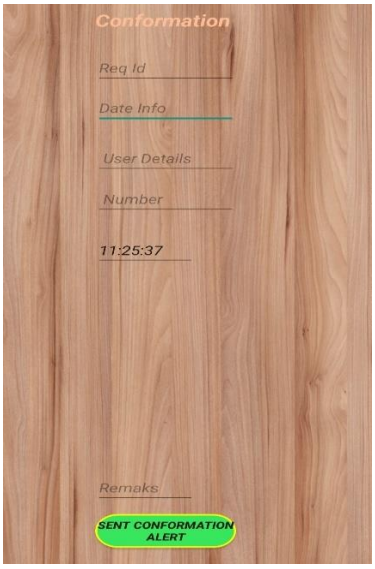

Figure 7: Conformation From

Figure 8: User Sign Up & Login

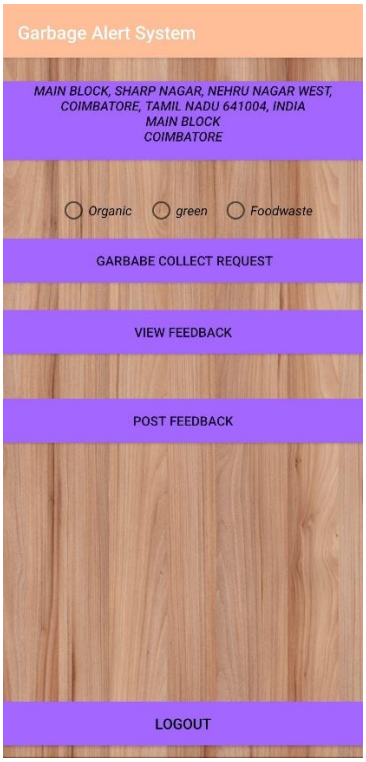

Figure 9: User Main Page

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