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Civic-G: Implementation of System to Manage Civic-Related Problems

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ABSTRACT

Civic-G Act: Implementation of System to Solve Civic Problem, the proposed project is an automated system that will provide a better tech assistant for efficiently handling various civic problems. Our project will provide a common platform for citizens, authorities, and the ground-level worker who is responsible for the implementation of commands. Civic-G Act will serve as a single door solution for raising, following, and solving concerned problems. In recent time smartphone technology and usage has grown exponentially and simultaneously. So keep in mind the above fact we have aimed to implement our proposed project using the android platform.

The Idea of the proposed project came from the situation faced by local people in day-to-day life. People usually came across a situation where they find various types of civic related problems:-

Debris of garbage, Potholes, Damaged street lamps, Blocked sever line The citizens may have complaints concerning their environment and city's infrastructure but they might not like the traditional complaining system in which they need to undergo a long tedious procedure like going to the office andstanding there four hours in the queue, wasting so much of their valuable time and efforts.

So, to gap the bridge, we came up with an Android application introducing a brand new platform for sharing problems between Municipal authorities and therefore the public, simply in two clicks which can be optimally used by the citizens thus keeping them unaware of the background processes and details. Among several existing platforms for mobile phones, Android is one of the largest and the most important platforms in the world that runs on several Smartphones and tablets.

infrastructure of the city. The introduced services can be implemented with an Android app for establishing digital community and digital well-being in the city. This application can promote digital literacy among citizens.

I. INTRODUCTION

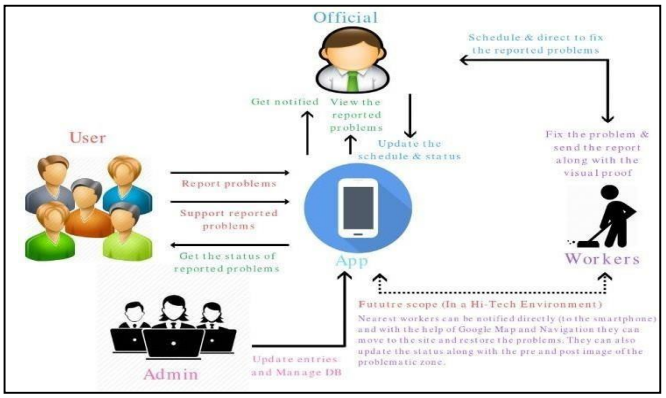
Since complaints are a valuable source of feedback to improve the infrastructure and conditions of our city. The citizens may have complaints with respect to their environment and the city's infrastructure but they might not like the traditional complaining system in which they undergo a long procedure like going to the office and standing there four hours in the queue, wasting so much of their valuable time and efforts.

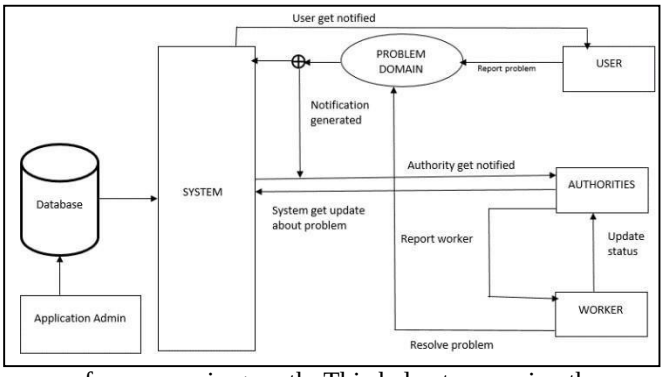
So, to bridge the gap we came up with an Android application introducing a new platform for sharing problems between civil service authorities and the public just in two clicks enabling the core functionality of the application to function and effectively hiding the technical details from the end-user. In today's world, everyone possesses a smartphone. Among several existing platforms for mobile phones, thus developing an android application to full fill thispurpose will maintain a satisfactory relationship between citizens and government and improve the process of civil development where all members can equally contribute to the improvement of the conditions and infrastructure of the city. These introduced services can be implemented with the Android app for establishing a digital community in the city.

II. LITERATURE REVIEW

At present time few government and private applications existed which are similar to a few of the modules of the project:-

- Swachhgrahiis a cleanliness Application that is working towards ending the menace of open urination.
- "MeriSadak" is an android application by which an Indian Citizen can give his/her feedback on the completion of PMGSY road work, also the quality of PMGSY road work, etc. (PMGSY stands for Pradhan Mantri Gram SadakYojana) to the related Departments in State Government .
- National Rural Roads Development Agency (NRRDA). The application allows the user to take multiple photographs of the road and upload them into the app along with relevant feedback.
- "Understanding the fundamentals of smart city" surveys more than 200 scholar publications and tell what is necessary to build similar app. Advantages: Gives important and useful knowledge for building smart city app.
- "Impacting Sustainable Behaviour and Planning in Smart City", we will use conceptual systems diagrams to map the different aspects of this relationship and identify the gaps. It allows service providers and the city government to provide moreefficient and sustainable services.
- "Smart city as urban innovation." focusses on management, policy, and context of Smart City Application. Helps to study management policy and context of Smart City application.
- "Smart city, safety and security." shows the lack of importance which is being given to this topic and provide the reader with an insight into the importance and use of the modelling and simulations in a Safe City. Focusses on the question of the safety and security in such cities in the future
- "Privacy in the smart city" focusses on systematising the application areas, enabling technologies, privacy types, attackers, and data sources for the attacks, giving structure to the fuzzy term "smart city. This survey serve as a reference guide, contributing to the development of privacy-friendly smart cities.
- "Making a smart city for the smart grid" primarily concerned with the management and flow of digitalization and big data in pursuit of new logics for economic growth. This helps to examine the ways in which the 'smart city' is being put to work





III. BLOCK DIAGRAM OF THE PROPOSED SYSTEM

IV. METHODOLOGY

1) User:
The user can primarily use the application interface for registering a new grievance or issue by providing the necessary data. If the user isn't a registered user, then he/she will have to register first and then sign in to the application to look for all registered complaints and their results. The user can also track their registered complaints and their status.

2) Officials:
These are the actual authority figures working for the application. When a complaint/grievance is registered and uploaded, it will be notified to the officials of the respective department to take further action. Accordingly, they will inspect and analyze the report and will take further action like addressing the problem, scheduling to fixit anddirecting the nearest worker, etc.

3) App:
The major components of the application are, the server application and the second one is the android mobile application. The server application will run and fetch data from the web server. The client application will run as a web/android application on a standalone computer or an android based mobile phone respectively.

4)Admin:
The Task of the admin in the application is to deal with the server-side database. And maintain the complete record accordingly needed by user and authority.

✓ **Methodology For Registration & Login**

- For registration and login purpose we have used Firebaseauthentication service.
- At the time of registration user will get a verification email.
- User than need to verify email by clicking on verificationlink.
- Once user verify email he will get login screen.
- Now, he will put email and password to get logged in into application.

✓ **Methodology for Account set up**

- After Login user first needs to set up his account.
- User needs to set profile picture, name, mobile number,address.
- Nagarsevak need to put his name and pin code of his area.
- Department personals will set up department details andhandler details.

✓ **Methodology for posting complaints.**

- 1. User will press the plus button present on main frame.
- 2. After pressing plus button he will get option to clickphoto.
- 3. He will also need to write some description and selectthe relevant department.
- 4. Timestamp and location will get automatically fetched.

✓ **Methodology for fetching post details.**

- 1. All post are using firebase query.
- 2. For every module there is a different view.
- 3. Nagarsevak will see post of only his area.
- 4. Department person will see post of only his department.

Features

➢ Capturing and uploading the snap or video of theproblematic zone as visual proof.

➢ Locating problematic zones by GPS and Google map Zipcode: For GPS disabled services, a map of that particular area will be displayed and the user can easily allocate the problematic zone. This improves theflexibility of the system among its users.

➢ The integrated clock and calendar will calculate the dateand time automatically for every user activity.

➢ Under this section, users can give possible suggestionsto fix reported problems as per their perspective.

➢ This could be helpful to prioritize the problems by giving likes and dislikes and/or commenting. It could also be helpful to ensure relevancy.

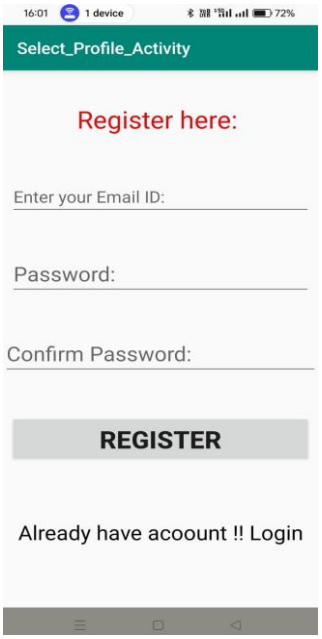
➢ The user can track down the status of the reported problem such as "The problem is addressed", "Scheduled to resolve" etc.

➢ If the reported problem has not been addressed by the officials within a specific span of time, then the database itself generates the same problem and notifies the authority by placing that problem in the updated list. In this way, the complaint can't be ignored or skipped without taking proper action.

V. DESIGN AND IMPLEMENTATION

For illustrating the design and implementation part we have added screenshorts of the working model of various methodologies used inside the application their respective usesand descriptions are provided along with their screenshorts.

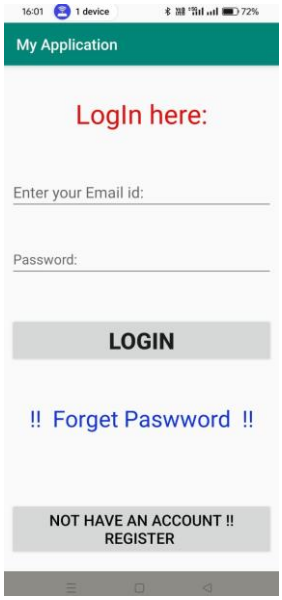
Registration Part:



This shows the registration segment of our application. Here the user is able to register into the app with the help of their personal email-id, and creating theirpassword. By completing the above steps, the user will be able to successfully register into our application

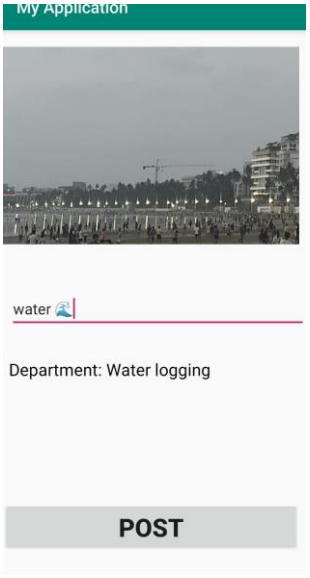
VI. RESULT

Login Page:



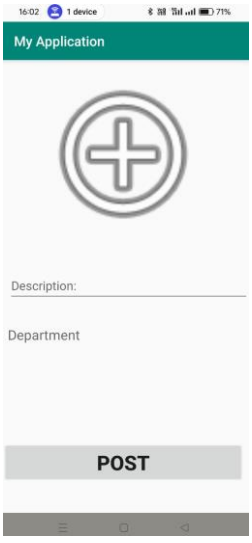
This shows the login page of our application. Here the user is able to login into the app with the help of their personal email-id, and creating their password. By entering these details, the user can login into the application.

Account Info:



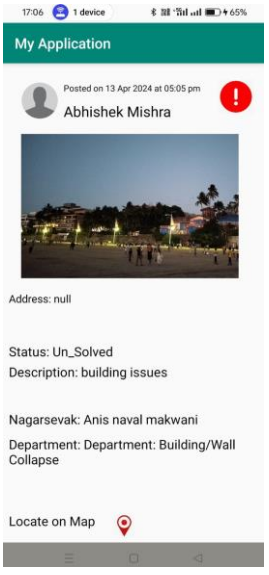
This screenshot shows the account page of our application after a complaint has been posted into the system.

Domain and Department selection part:



This screenshot demonstrates the selection of different domains anddepartments which are present in the application. These domains are included along with their respective officials.

Complaint Posted:



This screenshot shows the condition of the application after posting a problem. Here user can see the status of the posted problem and see whether the officials have solved the posted problem or not.

VII. CONCLUSION

Thus, concluding this paper we aim to provide an immensely useful platform that encompasses new tools and technology to function its tasks along with the main focus on the betterment of society, ease of access towards problem reporting, and quicker results than anticipation for the problem to be solved. With the continual rise of new technologies and innovations, human patience has shortened and quick on-point results are expected along with zero presence of human error. This application does the samething providing several advantages over prior conventional and manual complaint registration processes with greater efficiency, transparency, and convenience. A Smart City can be made according to the six important characteristics i.e., Smart Economy, Smart Governance, Smart People, Smart Living, Smart Environment, and Smart Mobility. This android app focuses on the above characteristics and will provide information services to the citizens and will update the citizens with the information they need.

VIII. FUTURE SCOPE

This project can be implemented for large scale. We can easily add other Municipality and local authorities in this particular framework. It will also help in to move towards Smart City idea and Swachha Bharat.

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