

Mobile App for Addressing Social Issue to PMC Using React Native.

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Abstract—Numerous services, including urban biodiversity and eco-systems, water and waste water management, sanitation, solid waste management, traffic and transportation (PMPL), energy, and climate change are offered to Pune residents by the Pune Municipal Corporation. This survey paper discusses how the smart city grievance reporting system will alter how complaints are reported in the modern day. They offer this service to every resident of Pune with sufficient care and direction, however occasionally problems arise as a result of delivering services to them. And someone, somewhere, must bring these problems to the Pune Municipal Corporation so that they may resolved their problems for the welfare of the citizens. However, the PMC must oversee a sizable portion of Pune, around 243.96 sq. km, and it is difficult for them to manage such a huge region. It's challenging to spot tiny issues at a specific site, it might cause the treatment of a specific problem to be delayed. So, the only thing left to do is to imagine if we created a project that would work with PMC and try to assist them in resolving these issues with the aid of Pune residents. The major goal of this app is to increase transparency between local government bodies and the citizen of the Pune.

Keywords— *grievance, react, reporting, system, native addressing, citizen reporting system, significant.*

I. INTRODUCTION

More than half of the world's population is currently online, using a variety of channels, the largest of which is social media. Social media is highly significant in daily life since it allows us to contact with one click with everyone in the world, share information, and provide feedback. It also gives us a platform to present our argument to a global audience.

In-depth study has been done on the topic of e-services for municipal corporation use. Understanding the usability and value of services offered by a municipal corporation utilizing more advanced technology is the aim. Studies that focus on the usability of e-services for the citizen group that is physically challenged have also been undertaken. The Pune Municipal Corporation is responsible for maintaining the city. The municipal corporation has a number of departments to handle various facets of city maintenance and administration. For the municipal corporation to effectively address the problematic areas, it is critical to be aware of the issues that exist in the city as well as when they arise imagine how it will assist us for resolving the problem that PMC and we have with handling very minor social concerns that have arisen anyplace in Pune.

The users can post photos, the location of the issue actually created, and a description to it by raising their issue almost

anywhere in Pune, and they can tag the appropriate PMC Officer depending on the type of problem brought up. As a result, our app serves as an interface between the users and the specific officials of the PMC.

Therefore, any user who believes that a problem brought up by a third party is legitimate and ought to be resolved by the Pune Municipal Corporation can like the post and intensify the debate so that PMC will take the problem into consideration and resolve it as quickly as feasible. A green Checkmark can be added to the post by the PMC once the problem has been resolved, letting users know that their problem has been taken care of.

A. Motivation Of the Project

The Municipal Corporation is the governing body in charge of managing the affairs of the city of Pune is known as the Pune Municipal Corporation (PMC). A PMC's primary responsibilities include, among many other things, resolving any complaints that municipal residents may have. In order to maintain a huge city, the PMC must be informed of any issues, either by monitoring (sensors/cameras) or by enabling the public to report them. Due to a sense of community, the second choice is frequently chosen therefore, if a citizen has a problem with the services provided by PMC, he or she may file a complaint against it. To file a complaint, a person must visit the local PMC office or PMC care facility, but since life today is so busy, no one has time to travel there, wait in line, and file a complaint. Therefore, a mechanism like a mobile application that can receive complaints from residents 24 hours a day, seven days a week would be beneficial from both the citizens and the PMC in order to tackle this problem.

B. Brief description

The Pune Municipal Co-operation (PMC) is making significant progress in maintaining and controlling the social problems Pune City is facing, however no single authority or organization is able to manage the 729km of territory. Pune is 729 km in length, so the PMC cannot manage and maintain all of Pune. However, some areas of Pune may be manageable. Social media is the finest medium for reaching every nook and cranny of a specific location. Social media gives people from different locations a lot of opportunities to communicate with each other. It is also the ideal medium for promoting new understanding. So, in an effort to assist PMC, we have created an app that allows users to take photos of specific social issues, such as mobility and piss poor public transportation, as well as garbage problems and pretty poor healthcare facilities, unsatisfactory water waste management, pretty mediocre solid waste management, traffic, and climate change, and then post the photos online while tagging or noting a specific PMC office

that handles that issue. As soon as the PMC officer who was mentioned receives a mention issue with the description for what the officer is mentioned, he or she will check the green checkmark and reply with a completed message on that particular post, keeping the people updated.

II. LITERATURE SURVEY

Studies that focus on the usability of e-services for the citizen group that is physically challenged have also been undertaken. The Pune Municipal Corporation is responsible for maintaining the city. The municipal corporation has a number of departments to handle various facets of city maintenance and administration. For the municipal corporation to effectively address the problematic areas, it is critical to be aware of the issues that exist in the city as well as when they arise the users can post photos, the location of the issue actually created, and a description to it by raising their issue almost anywhere in Pune, and they can tag the appropriate PMC Officer depending on the type of problem brought up. As a result, our app serves as an interface between the users and the specific officials of the PMC.

A. "Natural Language Mobile Interface to Register Citizen Complaints"

^[1] The research work done by SunilKumar Kopparapu, a member of TCS Innovation Lab - Mumbai Tata Consultancy Services Limited, Yantra Park, Thane, India, conducted the research. A city's municipal corporation (MC) is the local governing body in charge of overseeing city operations. In this study, they developed an app and web portal for filing grievances with municipal corporations. Once a citizen registers a complaint on this site, the complaint is forwarded to the appropriate departmental authority for action. The person who filed the complaint is informed of its status. The primary methods of complaint registration are visiting the local ward office, where a representative listens to the complaint and requests some personal information before entering it into an electronic form that is stored in a central database, calling a contact center over the phone, where a call Centre representative enters the complaint into the system, and more recently using a web portal interface, where t The complaint's status can be updated by the ward officer. Wireless Mark-up Language (WML) is used in this study's context to make it possible for mobile devices to submit concerns about the porting of the web interface.

B. "Social media platform development with React Native"

^[2] Here the author of this thesis is Minh Tien Le who has gave the detail info about the social media and about React and how the Social media will act as a platform to reach to the people using react. React is the best language for this platform, as JavaScript's framework is React. After Python, JavaScript is the most popular language. On the same platform, a user can code for both IOs and Android by using React. Facebook was the first to use React, but it has a large user base. However, React gained popularity when Instagram started utilizing it for development. React was designed to be declarative, which means that if the application's state changes, the user interface is rebuilt. Using Virtual DOM is React. React continuously searches for an internal Virtual DOM and use Virtual DOM diffing to make it as resembling to the actual DOM of the browser as possible. This gives

browsers the option to update only the modified components rather than the entire DOM. This thesis's author's independent final-year project, "Kid Tube," served as the social media platform. Both the kids and their parents found the "Kid Tube" to be a fun platform. A website for sharing videos made just for kids and parents is called Kid Tube. The sole objective of developing this program was to protect children from hazardous content while still providing them with a fun and safe environment. The first stage in the authorization procedure for this application is signing up. The second step is browsing contacts. This is also the second function. The final function of the application is uploading content. If the user-uploaded content is hazardous, there is a group of people who watch over it can prevent the user from uploading it.

C. "All Indian Grievance Redressal App"

^[3] Students from the department of computer engineering at RCOE Mumbai, Viral Patel, Dannyaal Kapadiya, Deval Ghevariya, and Shiburaj Pappu, carried out the research. The purpose of this study was to develop an app that would enable local residents to file complaints against issues they encountered in their daily lives, such as issues with garbage collection or potholes in the road. This would enable the municipal corporation (MC) to quickly identify the issue and effectively address it. They created an app that makes it simple for local residents to complain to the municipal corporation. they used Java and XML to create an app (extensible Mark-up Language). There are other alternatives in that app, including sharing the geolocation, image, and address of that specific issue or complaint. In that app, complaints are divided into several sorts and subtypes, such as waste problems, traffic problems, energy problems, and many more, so that municipal corporations may readily access and rapidly resolve a large number of complaints.

D. "Grievance Reporting System"

Department of Computer Engineering Pillai College of Engineering, New Panvel, India students Harshad Rane, Omkar Suryawanshi, Tejas Mandhare, and Shraddha Pokale took on the significant responsibility of assisting Navi Mumbai MC in social activity such as Solid waste Management and many other social problems faced by Panel residents. In order to save users time, they created project components that simplify and streamline the grievance registration procedure overall. Users of this Android application can take pictures, which are subsequently processed using a machine learning model to determine the image's severity, such as high, medium, or low. Users' spatial locations are also recorded as part of the image-capturing process so that the overall location of the problem can be determined. After posting the captured images and any pertinent descriptions, the images are sent to the appropriate government agency and create a post about the complaint that can be viewed and up-voted by other citizens. The GPS feature of this technology is what allows the authorities to locate the problem being raised. By doing this, the issue of incorrect spatial location insertion was resolved, preventing confusion and unneeded delays for the officials.

E. "React-Native Based Mobile App for Online Experimentation"

[4]The study was carried out by Xingwei Zhou, Wenshan Hu, and Guo-Ping Liu, all of Wuhan University in Wuhan, China. The paper describes how to deploy NCS Lab in a mobile application using the React-Native framework. For the University of Wuhan, they created an online lab on this React Native website. The main parts of this mobile application are the user login, registration, menu, 3D model, experiment introduction, algorithm download, and configuration interfaces. For the convenience of users, each experiment will include a document outlining its overall concept, specific subject matter, and operating process. Before conducting the experiment, users must apply for the control. If the experimental equipment is not in use, each user's program will be set to control for 30 minutes, allowing users to carry out their own experiments during that period.

F. "Smart E-Grievance System For Effective Communication In Smart Cities"

[6]Mahvash Momin, Sadiya Ansari, and Abbas Damarwala are students at the M.H. SabooSiddik College of Engineering in Mumbai, together with Sanam Kazi, the assistant processor. His system's primary goal was to give people a faster way to convey their opinions to government officials by giving them a forum to do so. Therefore, they suggested a clever application to post complaints in text, image, or video format. The user's location will be monitored. According to the domain, or type and number of problems, the locally elected authority will view a list of issues in his or her community. The more senior authority can be notified of the most important and serious situations. The application will also include a "Serve India" module where citizens who want to volunteer their time for the country can sign up to do so. The responsible authority will then assign them to work on spreading awareness of smart digital India in rural and other underdeveloped regions of the nation. This is one of the important grievance reporting system among others but the problem with this Application is the Graphical User Interface is poor and not user-friendly.

III. PROBLEM STATEMENT

Pune is developing and this development also bring some changing in environment, surrounding. numerous problems raised in Pune issues like mobility and piss poor public transportation, as well as garbage problems and pretty poor healthcare facilities, unsatisfactory water waste management, pretty mediocre solid waste management, traffic, and climate change, which Pune municipal corporations (PMC) make while providing services to residents. The greatest way to address these concerns, from the perspective of the people of Pune to the Pune Municipal Co-operation, is through social media because social media is highly significant in daily life since it allows us to contact with one click with everyone in the world, share information, and provide feedback. It also gives us a platform to present our argument to a global audience.

The project's goal is to create a system that gives Pune residents a platform to discuss issues which Pune municipal corporations (PMC) make while providing services to residents. This would aid the PMC in resolving incredibly minor concerns that may arise anywhere in Pune. The public

and the PMC staff members involved in the issue must both benefit from such solutions.

IV. PROPOSED METHODOLOGY

The term "application" (abbreviated "app") refers to software that can be installed and run on a computer, tablet, smartphone, or other electronic device. The most common use of the term "app" is to describe a piece of software that is downloaded to and used on a mobile device. Most programmes do a single, limited task. Each mobile app has a different design and data flow because each app has specific objectives and activities to carry out. In our case, our program's design and data flow are simple but incredibly effective.

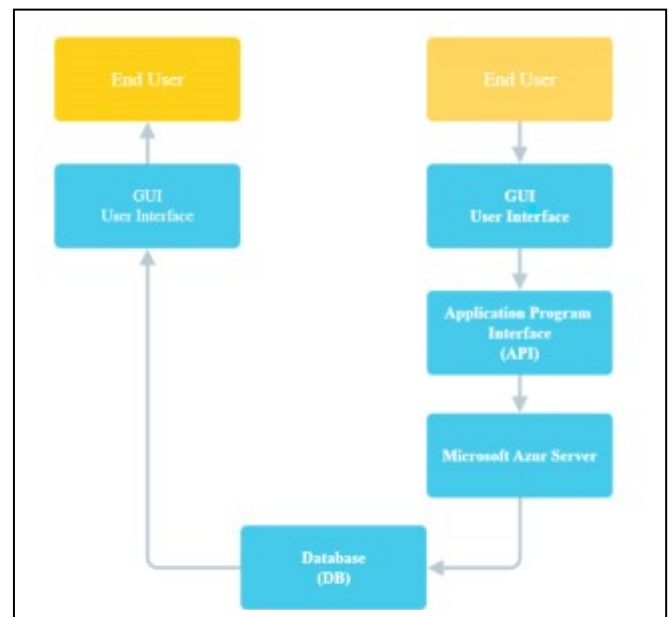


Fig. 1.Data Flow Diagram

V. CONCLUSION

For Pune residents, we have suggested a 24-hour-a-day, accessible app. In addition to employing Microsoft SQL Server for its database and React JS for its front end, the system hosts apps on the Azure hosting platform. A mobile app for social concerns has the potential to significantly improve the level of transparency between Pune's local government and its residents, according to the study's findings. A reliable procedure for bringing a complaint to the municipal corporation must be in place given the rising use of technology and social media. We can bring up the complaint to the company and the general public using React Native.

The average Pune resident will eventually be able to file their complaint on our app, view other complaints occurring nearby or throughout Pune, and bring up further issues using a heat or like button to draw attention from the appropriate authorities. The local municipal official is also capable of quickly responding to problems that arise in Pune and receiving notifications of grievances that do so in the city.

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