

## IMPLEMENTING THE SWATCHBHARATH ABHIYAN

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**Abstract-In India a Municipal Corporation is a local government body that administers a city of population 300,000 or more this standard varies from state to state as per the laws passed by the State Legislature(VidhanSabha) it is established by an act of the respective VidhanSabha of the State, a Municipal Corporation might be established independently, or a Municipality(Nagar Palika) might be elevated to the Corporation level by the State Government on attainment of a sizeable population as per the laws of the State.The Municipal Corporation is responsible for roads, public transportation, water supply, records of births and deaths (delegated from central government Births and Deaths Registration Act), sanitation that includes waste management, sewage, drainage and flood control, public safety services like fire and ambulance services, gardens and maintenance of buildings. All municipal acts in India provide for functions, powers and responsibilities to be carried out by the municipal Government.**

### I INTRODUCTION

A mobile app is a computer program designed to run on mobile devices such as Smartphone and tablet computers. Most such devices are sold with several apps included as pre-installed software, such as a web browser, email client, calendar, mapping program, and an app for buying music or other media or more apps. Some pre-installed apps can be removed by an ordinary uninstall process, thus leaving more storage space for desired ones. Where the software does not allow this, some devices can be rooted to eliminate the undesired apps.

This paper mainly involves the consideration of certain websites and mobile apps from which the features in the app are extracted. The main features include identifying the exact location of the user, updating the circulars and advisories from the official Swachh Bharat website, updating the status after each step in the process, analysis of the performance of the municipality, prioritization of the grievances received.

There is a need to have the exact location of the user i.e. the device from which the problem has been reported. This feature which provides the maximum accuracy turns out to be the distinguishing one from the previous methods which cannot ensure high accuracy. This feature can be offered by

- GPS
- Geotagging

The idea of implementing the GPS has been incorporated from the android app GPS Navigation BE-ON-ROAD

### II RELATED WORK

#### 1)GPS NAVIGATION BE-ON-ROAD:

This is the first on the list that offers features like turn-by-turn directions. It works around having offline map data that you do have to pay for which has been met with mixed reactions for users. There are also a few bugs here and there that people have not been enjoying. If you can get passed that, it's a fairly solid app that doesn't look bad. It does work internationally so people outside of the US can use it as well. It's free to try but you'll have to purchase things like a license and maps later on.

**GPS:**

Fig: 2.1.1 Identifying the GPS

Turning ON the GPS module on the phone would not cost us anything but getting a location usually involves transaction with cell phone service provider so as to extract the location fast and with as little network connectivity as possible plus non visibility of satellites. In short: no cell phone service implies any GPS location, as far as handheld devices are considered.

**Normal GPS**

The method is called trilateration. The receiver listens to a particular frequency and gets data packets in the form of time coded messages from satellites. The receiver figures which satellites it can hear from. It starts gathering those messages containing time information from atomic clocks, current satellite positions etc. Nominal time to get a location is around 30-60 seconds. The same information needs to be confirmed by at least two other satellites.

**Only Using Mobile Services**

The user location in an area is calculated with the help of signal measurements with the information received from cell towers. Information analyzed are angle to approach towers, multipath fading characteristics with signal strength comparisons. No GPS module used.

**Assisted GPS**

This is what a cell phone normally uses for mapping and GPS use purposes. User location information is retrieved within 5-10 seconds. The GPS components are shared with other mobile components and hence simultaneous use of GPS and normal voice/video usage is done. First, gross positioning information from service provider based on what cell tower is being accessed and the same is fed to the GPS receiver. Next, the phone switches from phone to GPS mode for around 0.1 seconds and collects raw GPS data from satellites. It then switches back to phone mode and sends the data to the service provider to be analysed.

The feature of geotagging has been incorporated from the app called Citizen Next which uses this feature to locate the device used to gives requests, try to contact him and render him the necessary services.

**Geotagging:**

Geotagging (also written as Geotagging) is the process of adding geographical identification metadata to various media such as a geotagged photograph or video, websites, SMS messages, QR Codes or RSS feeds and is a form of geospatial metadata. This data usually consists of latitude and longitude coordinates, though they can also include altitude, bearing, distance, accuracy data, and place names.

Geotagging can help users find a wide variety of location-specific information from a device. For instance, someone can find images taken near a given location by entering latitude and longitude coordinates into a suitable image search engine. Geotagging-enabled information services can also potentially be used to find location-based news, websites, or other resources. Geotagging can tell users the location of the content of a given picture or other media or the point of view, and conversely on some media platforms show media relevant to a given location.



Fig 2.2.1 Identifying the location

**Geotagging techniques**

The geographical location data used in geotagging will, in almost every case, be derived from the global positioning system, and based on a latitude/longitude-coordinate system that presents each location on the earth from 180° west through 180° east along the Equator and 90° north through 90° south along the prime meridian.

### Geotagging photos

There are two main options for geotagging photos; capturing GPS information at the time the photo is taken or “attaching” the photograph to a map after the picture is taken.

In order to capture GPS data at the time the photograph is captured, the user must have a camera with built in GPS or a standalone GPS along with a digital camera. Because of the requirement for wireless service providers in United States to supply more precise location information for 911 calls by September 11, 2012, more and more cell phones have built-in GPS chips. Most smart phones already use a GPS chip along with built-in cameras to allow users to automatically geotag photos. Others may have the GPS chip and camera but do not have internal software needed to embed the GPS information within the picture. A few digital cameras also have built-on or built-in GPS that allow for automatic geotagging. Devices use GPS, A-GPS or both. A-GPS can be faster getting an initial fix if within range of a cell phone tower, and may work better inside buildings. Traditional GPS does not need cell phone towers and uses standard GPS signals outside of urban areas. Traditional GPS tends to use more battery power. Almost any digital camera can be coupled with a stand-alone GPS and post processed with photo mapping software, to write the location information to the image's exit header.

The information about the objectives of the campaign, circulars and advisories, ongoing events regarding Swachh Bharat campaign are taken from the Swachh Bharat official website. These keep us updated about the circulars, events scheduled regarding the campaign, the venue of the events. These circulars and advisories can be downloaded and can serve their intended purpose.

These circulars and advisories are updated every day as soon as a decision is made by the government regarding implementation of a new service or when updating the existing one. The changes are reflected in the app as soon as the circulars are posted on to the official website of Swachh Bharat.

### III OVERVIEW OF TRADITIONAL APPROACH

In the existing system, a lot of time is spent in communicating with the municipality. The traditional system is to approach the municipality personally and register a complaint or report a problem. A better approach has been initiated in the past decade where the problem is reported and the complaint is registered with a phone call. This was a bit easier compared to the previous method. But even this method has certain drawbacks. For example, it's a bit irritating when the call doesn't get connected. It's even worse when the concerned people do not answer the call.

Conventional System makes use of huge amounts of paper for recording transactions. Even though the conventional system transformed into a flexible one which uses computers to record the transactions, the number of computers and the people required to operate them is comparatively higher.

### IV ANALYSIS OF PRAPOSED TECHNIQUE

The major activities of the system are to receive various types of grievances from citizens, facilitate speedy processing of grievances received, updating the status of grievances as and when required.

User-friendly menu based access to the processes in the app with different access paths to different users (i.e. normal users (citizens), representatives and municipal authority) to ensure easier access and security. Analysis of the performance of the municipality by

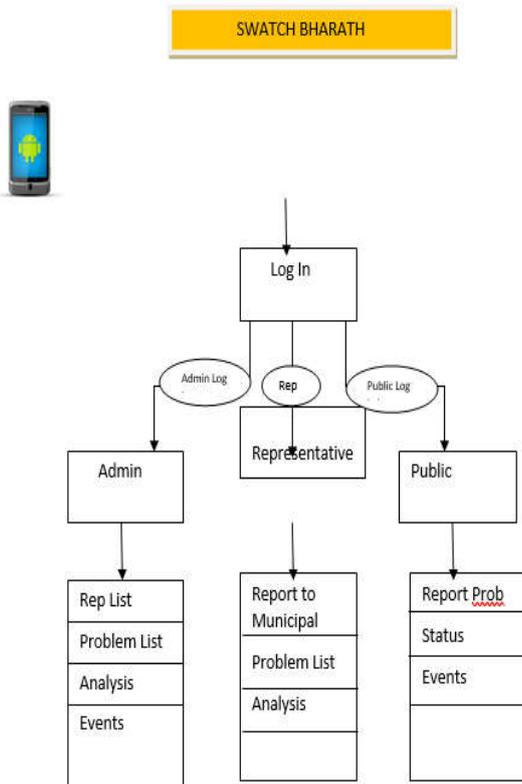
- By users of the app, with regard to their own registered complaints about the problems. For example, if a person has given 3 complaints in a particular month and only two of them were processed and resolved, the purpose of the analysis is to generate a graph or histogram which shows the performance trend.
- By representative of a particular area about the increase in the number of users in a particular time span, number of grievances received in a particular month, the increase or decrease in the grievances received compared to the previous months, the number of grievances that are completely resolved.
- By Municipal Corporation about the total number of grievances received, the areas with most registered complaints, the number of representatives in that particular area. This helps the Municipal Corporation to decide whether or not to divide a particular area further to address the increased number of problems.

This analysis can be done on timely basis-weekly, monthly, quarterly, half-yearly and yearly as a whole.

An acknowledgement system which informs the user that the complaint has been registered, about the action taken by the MC and a final acknowledgement after the problem gets resolved.

The prioritization of the grievances received helps the municipality to decide what problems should be resolved first. This is facilitated by rating given by the representative of each area on considering all the grievances received.

**V SYSTEM ARCHITECTURE**



**1. USER:**

User has to register first before logging in to report a problem. During the registration process, the user has to provide certain details. Especially specifying the location is very important. The details of the user will be stored in the corresponding database. After registering, the user will have to login with the username and password provided during registration. Each area will have a representative and he is responsible for handling the user details and the problems reported by him.

**2. REPRESENTATIVE:**

Representative cannot register by himself. It is the responsibility of the municipality to register him before making him a representative. The representative will be given a unique ID by the municipality. He will have to use this ID to provide username and password which will later be used to login and carry on his operations.

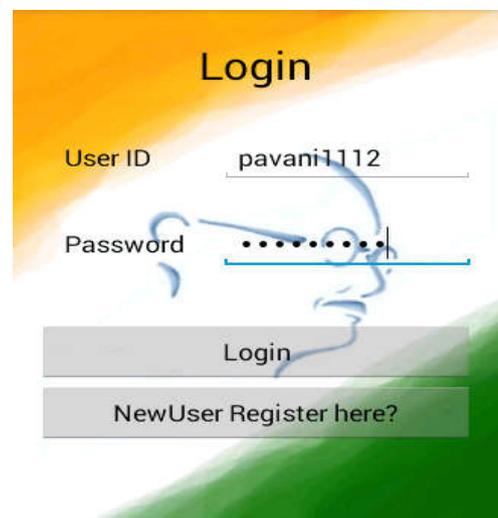
**3. MUNICIPALITY:**

The admin will have his own unique ID assigned by the Municipality. He should use this ID to provide username and password while registration. He uses this username and password to login and carry on his operations. He is responsible for the complaints forwarded to him, updating the status of the problem to the representative, maintaining the list of representatives, adding representatives if necessary.

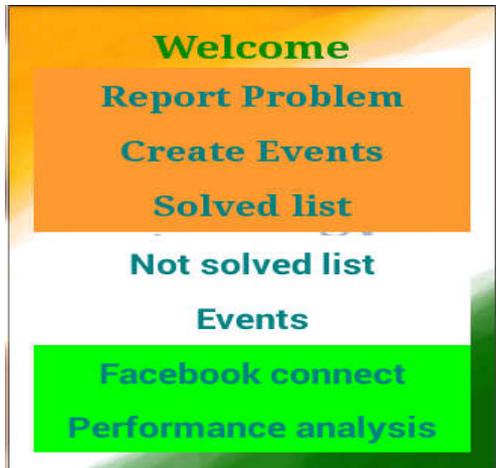
**VI RESULT ANALYSIS**



6.1 welcome page



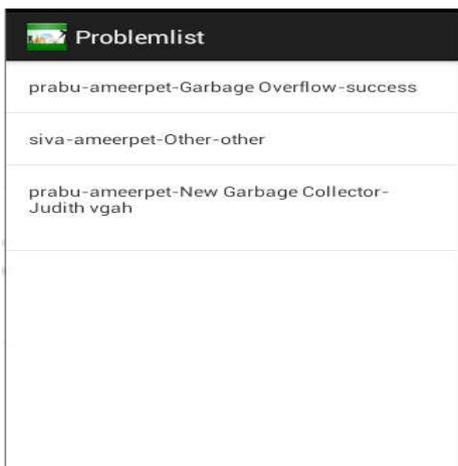
6.2 login page



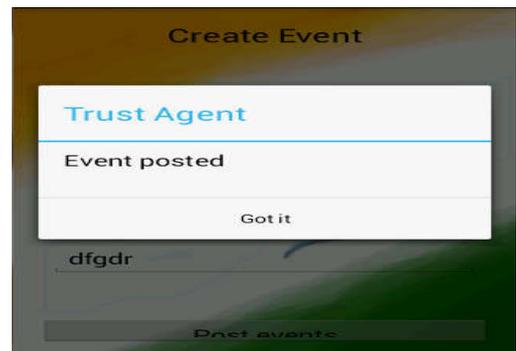
6.3 user page



6.5 municipality setting problem status



6.4 Representative Page



6.6 event created successfully



6.7 performance analysis

## VII CONCLUSION

We can say Swachh Bharat Abhiyan, a nice welcome step to the clean and green India till 2019. As we all heard about the most famous proverb that "Cleanliness is Next to Godliness", we can say surely that clean India campaign (Swachh Bharat Abhiyan) will really bring godliness all over the country in few years if it is followed by the people of India in effective manner. So, the cleanliness activities to warm welcome the godliness have been started but do not need to be ended if we really want godliness in our lives forever. A healthy country and a healthy society need its citizens to be healthy and clean in every walk of life.

## VIII FUTURE SCOPE

Swachh Bharat cess is an improvement in the service tax by .5% on all the services in India. It was started by the Finance Ministry to collect some fund from each and every Indian citizen for the Swachh Bharat Abhiyan in order to make it a successful campaign. Everyone has to pay extra 50 paise for each 100 rupees as service tax for this cleanliness campaign.

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