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Pollution Reporter

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Abstract:
In the 21st century, there is a rapid growth of industrialization which leads to an enormous amount of pollution. In such a case, people do not know where, how and whom to report. These condition prologues it causes major harm to people living in and around that location resulting in health issues. Hence an application is designed in such a way that it carries out the process of finding a solution automatically. A user can file a complaint by entering the type of pollution and location and uploading a picture and submitting it to the authority. Once the user lodges the complaint, the public is allowed to vote which determines the critical level of the pollution. Based on the votes, actions are taken by the concerned authorities immediately. Admin will be able to see the complaints registered by the user and he can accept or reject the complaint in admin's web portal. Hence this application reduces human effort, cost, time and stress level of a person. Instead of walking around the solution for pollution can be arrived staying in one place.

Keywords: Air Quality Index (AQI), Apache Tomcat, Internet Protocol (IP), Polling, Pollution, URL Call.

1. INTRODUCTION

Pollution causes serious problems in our environment and creates havoc for living beings including humans. Pollution types include land pollution, water pollution, air pollution. Pollution can be caused by both humans and nature. There should be control over the emissions and effluents into air, water or soil. Without pollution control, the waste products from overconsumption, heating, agriculture, mining, manufacturing, transportation and other human activities, whether they accumulate or disperse, will degrade the environment. In the hierarchy of controls, pollution prevention and waste minimization are more desirable than pollution control. In the field of land development, low impact development is a similar technique for the prevention of urban runoff. Pollution can be controlled only by proper reporting from the people. It is utmost important to report the pollution to the concerned authority. We are proposing an android application where people can report the pollution to the authority and also, can view the status of the complaints.

2.EXISTING SYSTEM

There is no exact existing system for our application. There is no application available for reporting the pollution. There are some applications such as Sameer which can only detect the air quality in that area. Pollution meter which can only detect the pollution where there is no way to solve it. Noise pollution meter can check the noise level in that particular area. The pollution meter can check the AQI and specify healthy and non-healthy stations in that area. So, there is no system exactly available for reporting the pollution to the particular authority.

DISADVANTAGES OF EXISTING SYSTEM

1. Tracking of pollution can be done only by officials, not by the user.
2. There is no proper database about the population occurring sites to the officials.
3. Only the AQI value can be detected.

3. PROPOSED SYSTEM

In the proposed system, Android application is developed where the user first registers his basic details and login into the application. After login, the user will be redirected to his dashboard where he has multiple options like register complaint, view complaint and view complaint status. The user can file a complaint by entering the type of pollution, location and uploading a picture, then it will be submitted to the concerned authority. There is a web portal or admin, where he will be able to see the complaints and he can accept or reject the complaint in the web portal. Users can also view other complaints by just entering the location and type. Users can also participate in the voting process where they can vote for a pollution complaint. The higher number of votes for a particular complaint can be taken immediate action by the concerned authority.

ADVANTAGES OF PROPOSED SYSTEM

1. Reduced human effort and time.
2. Immediate action over the complaint can be taken
3. The user can also view the other complaint in a particular location.
4. There is a polling system to detect the criticality of the complaint.

4. EXPLANATION

The user needs to register with the respective mobile application in order to file a complaint. Once the registration is successful, the user can log in to the application and provide necessary information like location, date and also need to upload an image. The user can also view another complaint in a particular location and can do the polling to increase the criticality of the population. Admin can view the registered complaint and can take necessary actions based on the voting polls.

MODULES

User Registration
In this module, user will be registering in the application and login in the application. We are using a URL call to connect the android mobile with our laptop. The user will be registering his basic details like name, email, location etc.

User File A Complaint:
After login user will be redirected to a dashboard in his application where he has a couple of options which include filing a complaint. The user will be able to file a complaint regarding pollution with image upload to the server option. The user will be providing basic information like the type of pollution and location and date and an image.

User Vote for A Complaint:
The user can participate in a voting process where he can check the complaint list and participate in voting for a pollution complaint. When he responded positively for a complaint it increases the complaint credibility.

Admin Accepts or Rejects the Complaint:
After users raise a complaint about the pollution in there is an admin who is managing a web portal can check all the complaints. Admin can accept or reject the complaints. And also, the admin will be able to see rejected complaints or accepted complaints.

5. REQUIREMENTS SPECIFICATION

5.1 Hardware Specification

1. Laptop

1. **Hard Disk** : 200GB & Above
2. **RAM** : 4GB & Above
3. **Processor** : Pentium IV & Above

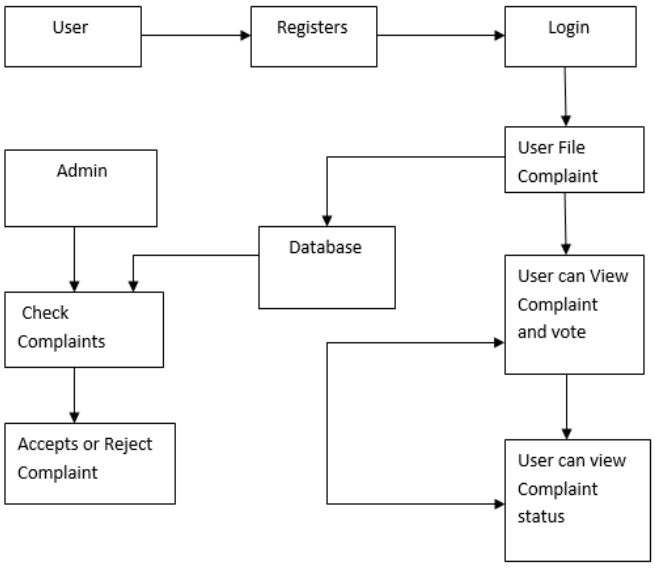
2. Mobile phone

1. **Android:** Jelly-Bean & Above

5.2 Software Specification

1. **Operating System:** Windows 7 and above
2. **Language:** JAVA
3. **Development Tool:** Android Studio, JDK 1.8
4. **Server:** Apache Tomcat
5. **Database:** MySQL

6. SYSTEM ARCHITECTURE



7. MODULES IMPLEMENTATION

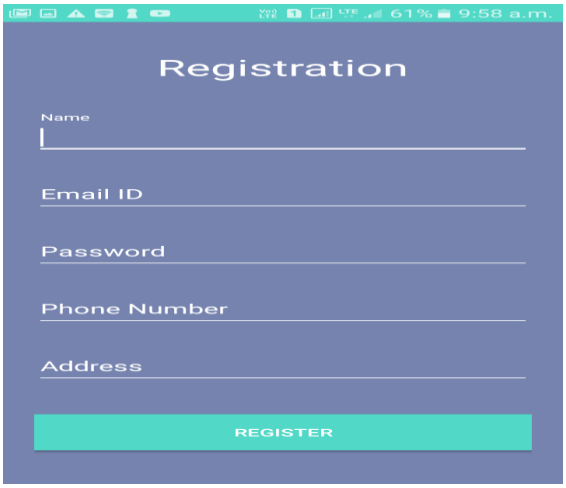


Figure.1 registration page for user

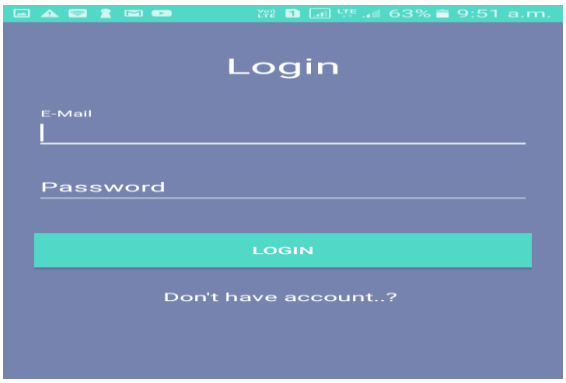


Figure.2 login page after user registeration

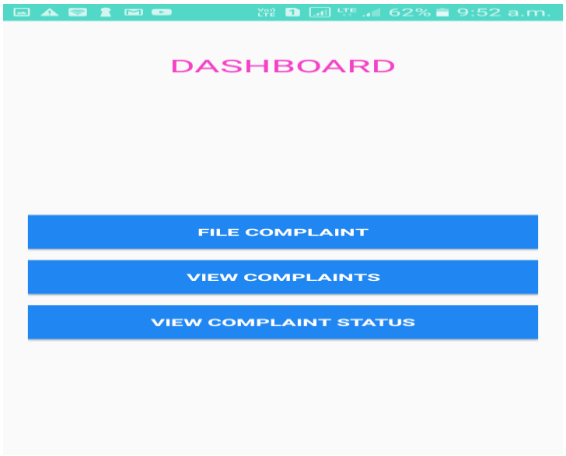


Figure.3 user home page

Figure.4 reporting the pollution

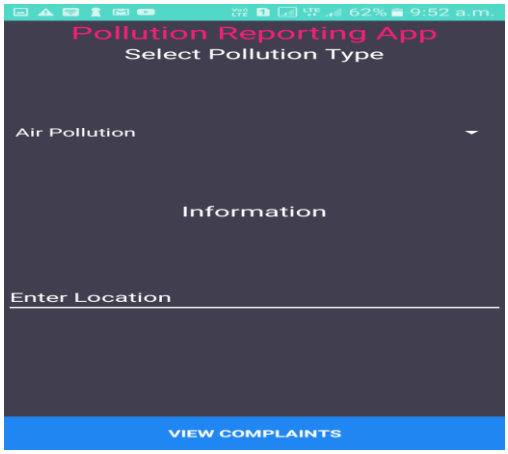


Figure.5 view the complaint

Figure.6 polling

Figure.7 viewing the status of the complaint

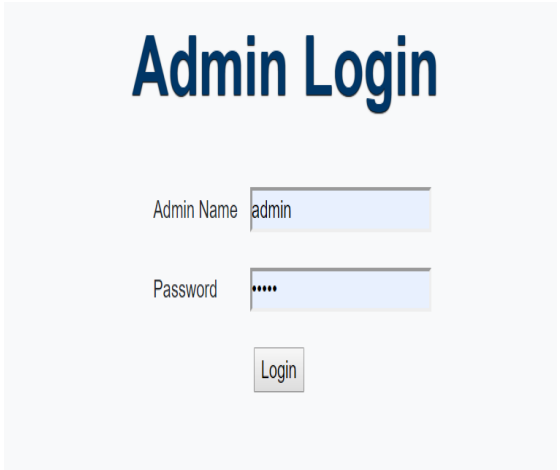


Figure.8 admin login page

Figure.9 list of complaints in admin web portal

8. CONCLUSION

In this paper, Pollution monitoring and reporting android application are developed. It helps the public authority to take immediate steps against the pollution complaint. It also helps the government to have a database over the pollution occurring location and can take remedial measures to control the pollution. Public polling helps the authority to prioritize the pollution occurring location.

9. FUTURE WORK

As future work**,** it is planned to develop a multilingual and multi-platform mobile application in order to help all sorts of people in society.

10. REFERENCES

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