Final Project Proposal

For

INFO 5100

Urban Management Application for Smart Cities

by

The Bug Slayers

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Problem Overview

In developing countries like India, there is an inefficient management for municipal services, regarding the facilities like water supply, electricity, waste management and many others. Whenever there is an issue with any of these municipal services, there is a significant amount of delay involved in reporting of such issues and no monitoring and measuring and implementing resolution times on these. This is a big problem when there is no proper reporting mechanism, a lot of issues go unnoticed and unresolved causing further problems. For example, during monsoon(seasonal rains), there are high chances of trees falling on the street, cutting off power lines, and also causing automobile accidents. Thus requiring urgent lookout from multiple municipal services like the Fire Department, the Police, and electricians and construction workers. This requires multiple parties working together to solve the incident.

Application Key Functionalities

* A citizen(user) will be able to raise an incident in the portal and the concerned team will be assigned to work on this incident
* Some such incidents might require multiple parties involved in the resolution and one team will be able to assign a request to another team for collaboration
* Monitoring can be implemented to make sure known issues are resolved within the stipulated time
* Based on the different parts of a city, for emergency incidents the nearest team of engineers will be assigned and given an alert on their devices
* There will be a prioritization of the complaints based on the urgency of the incident

Proposed Entities

Following is the list of entities the we propose to be involved in the application

1. Admin
   * Will be the in-charge of the application
2. User/citizen
   * Will raise complaints and/or request regarding incidents
3. Engineers/Electricians/Waste Collection person
   * From multiple enterprises/departments, for eg. Water supply department, electricity department and many more
   * Will be able to see the incident and resolve it
4. Police Officers/Traffic Police Officers
   * Will be able to monitor the activity and facilitate the traffic and law and order during any resolution
5. Fire Fighters
   * Will be able to monitor the activity and provide emergency response when necessary
6. Medics
   * Will be available and provide emergency response when necessary

Ecosystem Architecture Diagram

