Clean Sweep :
Urban cleanliness monitoring System

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"When citizens and systems work together, cleanliness becomes a habit, not a challenge ! "

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Abstract

Keeping our cities clean is a big challenge today, mainly because the current complaint systems are slow and outdated. People often report issues but rarely get updates or quick solutions.

To solve this, we created **Clean Sweep** — a simple website where anyone can report cleanliness problems, track their complaints, and stay informed about the condition of their area. It makes the whole process faster, more transparent, and easier for both citizens and authorities. With Clean Sweep, we aim to make our cities cleaner, healthier, and a better place for everyone to live.

Background

As cities continue to grow, managing waste and maintaining cleanliness has become a serious challenge. Even though people want to keep their surroundings clean, the process of reporting issues is often slow, confusing, and unorganized. Many citizens don't know where to complain, and even if they do, they rarely get updates about what's happening next.

Traditional systems mostly rely on manual processes, leading to delays and frustration.

Clean Sweep was designed to make reporting, tracking, and monitoring cleanliness issues simple, transparent, and quick, helping build more responsible and cleaner communities.

Materials and Methods

Technologies Used:

- **Frontend:** Html, Css, Js , React + Vite
- **Backend:** Node.js, Express.js
- **Database:** Mongo DB

System Design:

- Entity-Relationship (ER) diagrams were used to map the database structure.

Methods Used:

- **Issue Reporting:** Users can report garbage or cleanliness issues.
- **Complaint Tracking:** Users can track their complaint status easily.
- **Area Monitoring:** Users can check the cleanliness condition of their locality.

Clean Sweep

Results

1. Improved Urban Cleanliness and Living Conditions
- ✓ Real-time reporting and monitoring lead to cleaner streets and public spaces..

2. Efficient Resource Allocation and Management
- ✓ Optimized task distribution to municipal teams based on priority and location.

3. Enhanced Citizen Participation and Satisfaction
- ✓ Increased citizen involvement through an easy-to-use reporting system.

Conclusion

The system ensures cleaner cities by enabling real-time reporting, efficient monitoring, and faster issue resolution, fostering citizen engagement and better living conditions.

Future Direction

Future work includes AI integration, system expansion, and promoting sustainability with citizen incentives.

Acknowledgments